



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**FAA-S-8081-30**  
**with Changes 1 and 2**

# **SPORT PILOT**

## **Practical Test Standards**

for

- **Airship**
  - **Balloon**
    - **Flight Instructor**

**December 2004**

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

# **SPORT PILOT**

## **Practical Test Standards**

**2004**

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**NOTE**

Material in FAA-S-8081-30 will be effective December 1, 2004.

## Record of changes

### Change 1—6/9/2006

1. Deleted the additional category/class matrix; applicants for an additional category/class privileges must take a complete practical test.
2. Added the requirement for a heading indicating system to page 9, as appropriate, for all tasks that require demonstration of skill within a heading tolerance.
3. Added weather elements for inadvertent entry into IMC on pages 1-2 and 2-2.
4. Deleted the ATC light signal requirements from airport operations page 1-10 and 2-9.
5. Added proficiency check materials to flight instructor characteristics and responsibilities page 3-15.
6. Created category specific examiner/instructor checklists for the flight instructor with a sport pilot rating pages 3-xx to replace the flight instructor matrix.
7. Deleted the flight instructor matrixes. See above.

### Change 2—1/12/2007

1. Page 3-17. Task C: Federal Aviation Regulations and Publications, Element 2, changed “airplane flight manuals” to “airship/balloon flight manuals.”

## FOREWORD

The Sport Pilot Practical Test Standards for Airship, Balloon, and Flight Instructor has been published by the Federal Aviation Administration (FAA) to establish the standards for the knowledge and skills necessary for the issuance of a Sport Pilot Certificate.

FAA inspectors and designated pilot examiners shall conduct practical tests in compliance with these standards. Flight Instructors and Commercial Lighter-Than-Air pilots shall conduct instruction and proficiency checks in accordance with these standards. Flight instructors and applicants should find these standards helpful during training and when preparing for the practical test or proficiency check.

/s/ 12-20-2004

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## General Information

The Flight Standards Service of the Federal Aviation Administration (FAA) has developed this practical test book as the standard that shall be used by FAA inspectors and designated pilot examiners (DPEs) when conducting sport pilot and flight instructor with a sport pilot rating practical tests or proficiency checks.

The word “examiner” is used throughout the standards to denote either the FAA inspector or an FAA designated pilot examiner who conducts an official practical test or proficiency check. When an examiner conducts a proficiency check they are acting in the capacity of an authorized instructor.

A proficiency check is an evaluation of aeronautical knowledge and flight proficiency IAW Title 14 of the Code of Federal Regulations (14 CFR) part 61, section 61.321 or 61.419. A proficiency check shall be administered using the appropriate practical test standard (PTS) for the category of aircraft when a pilot or a flight instructor adds new category/class privileges. Upon successful completion of the proficiency check the authorized instructor will endorse the applicant’s logbook indicating the added category/class of equipment that the applicant is authorized to operate. When an examiner conducts a proficiency check they are acting in the capacity of an authorized instructor.

DPEs must have designation authority to conduct sport pilot initial evaluations (Sport Pilot Examiner [SPE]) and flight instructor with a sport pilot rating initial evaluations (Sport Pilot Flight Instructor Examiner [SFIE]) per FAA Order 8710.7, Sport Pilot Examiner’s Handbook.

Authorized instructors and commercial lighter-than-air pilots shall use this PTS when preparing applicants for practical tests or proficiency checks and when conducting proficiency checks. Applicants should be familiar with this book and refer to these standards during their training.

Information considered directive in nature is described in this practical test book 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.

The FAA gratefully acknowledges the valuable assistance provided by many individuals and organizations throughout the aviation community who contributed their time and talent in assisting with the development of this practical test standard.

This PTS may be purchased from the Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, DC 20402-9325, or from <http://bookstore.gpo.gov>. This PTS is also available for download, in pdf format, from the Flight Standards Service web site at [www.faa.gov](http://www.faa.gov).

The U.S. Department of Transportation, Federal Aviation Administration, Airman Testing Standards Branch, AFS-630, P.O. BOX 25082, Oklahoma City, OK 73125 publishes this PTS. Comments regarding this PTS should be sent, in e-mail form, to [AFS630comments@faa.gov](mailto:AFS630comments@faa.gov).

### **Practical Test Standards Concept**

14 CFR part 61 specifies the AREAS OF OPERATION in which knowledge and skill must be demonstrated by the applicant before the issuance of a Sport Pilot Certificate or privileges. The CFRs provide the flexibility to permit the FAA to publish practical test standards containing the AREAS OF OPERATION and specific TASKs in which pilot competency shall be demonstrated. The FAA shall revise this practical test standard whenever it is determined that changes are needed in the interest of safety. **Adherence to the provisions of the regulations and the practical test standards is mandatory for practical tests and proficiency checks.**

### **Practical Test Book Description**

This test book contains the following Sport Pilot Practical Test Standards.

Section 1—Airship

Section 2—Balloon

Section 3—Flight Instructor (The flight instructor section contains a separate introduction in section 3.)

The Sport Pilot Practical Test Standards include the AREAS OF OPERATION and TASKs for the issuance of an initial Sport Pilot Certificate and for the addition of sport pilot category/class privileges. It also contains information on how to obtain an initial Flight Instructor Certificate with a sport pilot rating and for the addition of flight instructor category/class privileges.

## Practical Test Standards Description

AREAS OF OPERATION are phases of the practical test or proficiency check arranged in a logical sequence within each standard. They begin with Preflight Preparation and end with Postflight Procedures. The examiner may conduct the practical test or proficiency check in any sequence that will result in a complete and efficient test. An authorized instructor may conduct a proficiency check in any sequence that will result in a complete and efficient test. **However, the ground portion of the practical test or proficiency check shall 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 these standards because this information can be found in the current issue of the listed reference. Publications other than those listed may be used for reference if their content conveys substantially the same meaning as the referenced publications.

These practical test standards are based on the following references.

<b>14 CFR part 43</b>	Maintenance, Preventive Maintenance, Rebuilding, and Alteration
<b>14 CFR part 61</b>	Certification: Pilots, Flight Instructors, and Ground Instructors
<b>14 CFR part 67</b>	Medical Standards Certification
<b>14 CFR part 71</b>	Designation of class A, B, C, D, and E airspace
<b>14 CFR part 91</b>	General Operating and Flight Rules
<b>AC 00-6</b>	Aviation Weather
<b>AC 00-45</b>	Aviation Weather Services
<b>AC 60-22</b>	Aeronautical Decision Making
<b>AC 60-28</b>	English Language Skill Standards
<b>AC 61-65</b>	Certification: Pilot and Flight Instructors and Ground Instructors
<b>AC 61-84</b>	Role of Preflight Preparation
<b>AC 61-134</b>	General Aviation Controlled Flight Into Terrain Awareness
<b>AC 90-23</b>	Aircraft Wake Turbulence
<b>AC 90-48</b>	Pilots' Role in Collision Avoidance

**Change 1 (6/9/06)**

<b>AC 90-66</b>	Recommended Standard Traffic Patterns and Practices for Aeronautical Operations At Airports Without Operating Control Towers
<b>AC 120-51</b>	Crew Resource Management Training
<b>FAA-H-8083-1</b>	Aircraft Weight and Balance Handbook
<b>FAA-H-8083-9</b>	Aviation Instructor's Handbook
<b>FAA-H-8083-25</b>	Pilot's Handbook of Aeronautical Knowledge
<b>AIM</b>	Aeronautical Information Manual
<b>AFD</b>	Airport Facility Directory
<b>NOTAMs</b>	Notices to Airmen
<b>Other</b>	Pilot Operating Handbook/ FAA-Approved Flight Manual Aeronautical Navigation Charts

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

**Abbreviations**

14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ADM	Aeronautical Decision Making
AFD	Airport Facility Directory
AFSS	Automated Flight Service Station
AGL	Above Ground Level
AIM	Aeronautical Information Manual
ASOS	Automated Surface Observing System
ATC	Air Traffic Control
ATIS	Automatic Terminal Information Service
AWOS	Automated Weather Observing System
CFIT	Controlled Flight into Terrain
CRM	Cockpit Resource Management
CTAF	Common Traffic Advisory Frequency
FA	Area Weather Forecast
FAA	Federal Aviation Administration
GPO	Government Printing Office
IMC	Instrument Meteorological Conditions
METAR	Meteorological Aviation Report (Routine)
NOTAM	Notices to Airmen
NTSB	National Transportation Safety Board
PPC	Powered Parachute

POH	Pilot Operating Handbook
PTS	Practical Test Standard
RPM	Revolutions per Minute
SS	Single-seat
SUA	Special Use Airspace
TAF	Terminal Aviation Forecast
TFR	Temporary Flight Restrictions
VFR	Visual Flight Rules
WSC	Weight-shift Controlled

### Use of the Practical Test Standards Book

The FAA requires that all sport pilot and sport pilot flight instructor practical tests and proficiency checks are conducted in accordance with the appropriate sport pilot practical test standards and the policies set forth in this INTRODUCTION. Applicants shall be evaluated in **ALL** TASKs included in each AREA OF OPERATION of the appropriate practical test standard, unless otherwise noted.

An applicant, who holds at least a Sport Pilot Certificate seeking additional aircraft category/class privileges at the sport pilot level, must be evaluated in all the AREAS OF OPERATION and TASKs listed in the PTS.

In preparation for each practical test or proficiency check, the examiner or authorized instructor shall develop a written "plan of action." The "plan of action" shall include all TASKs in each AREA OF OPERATION, unless noted otherwise. If the elements in one TASK have already been evaluated in another TASK, they need not be repeated.

For example, the "plan of action" need not include evaluating the applicant on complying with markings and signals at the end of the flight, if that element was sufficiently observed at the beginning of the flight. **Any TASK selected for evaluation during a practical test or proficiency check shall be evaluated in its entirety.** Exception: examiners evaluating single-seat applicants from the ground shall evaluate only those TASK **elements** that can be accurately assessed from the ground.

The examiner or authorized instructor is not required to follow the precise order in which the AREAS OF OPERATION and TASKs appear in this book. The examiner or authorized instructor may change the sequence or combine TASKs with similar Objectives to have an orderly and efficient flow of the practical test or proficiency check events.

The examiner's or authorized instructor's "plan of action" shall include the order and combination of TASKs to be demonstrated by the applicant in a manner that will result in an efficient and valid test.

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

### **Special Emphasis Areas**

Examiners and authorized instructors shall place special emphasis upon areas of aircraft operations 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 wind shear avoidance;
6. runway incursion avoidance;
7. controlled flight into terrain (CFIT);
8. aeronautical decision making/risk management;
9. checklist usage;
10. spatial disorientation;
11. temporary flight restrictions (TFR);
12. special use airspace (SUA);
13. aviation security; and
14. 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 the practical 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.

### **Sport Pilot—Practical Test Prerequisites (Initial)**

An applicant for a Sport Pilot Certificate is required by 14 CFR part 61 to:

1. be at least 17 years of age (or 16 if applying to operate a glider or balloon);
2. be able to read, speak, write, and understand the English language. If there is a doubt, use AC 60-28, English Language Skill Standards;
3. have passed the appropriate sport pilot knowledge test since the beginning of the 24th month before the month in which he or she takes a practical test;
4. have satisfactorily accomplished the required training and obtained the aeronautical experience prescribed;
5. possess a current and valid U.S. driver's license or a valid Airman Medical Certificate issued under 14 CFR part 67;
6. have an endorsement from an authorized instructor certifying that the applicant has received and logged training time within 60 days preceding the date of application in preparation for the practical test, and is prepared for the practical test; and
7. have an endorsement certifying that the applicant has demonstrated satisfactory knowledge of the subject areas in which the applicant was deficient on the airman knowledge test.

### **Sport Pilot—Practical Test Prerequisites (Registered Ultra-Light Pilots)**

If you are a registered ultra-light pilot with an FAA-recognized ultra-light organization on or before September 1, 2004, and you want to apply for a Sport Pilot Certificate, then you must, not later than January 31, 2007 (14 CFR part 61, section 61.329):

1. meet the eligibility requirements in 14 CFR part 61, sections 61.305 and 61.23, but **not** the aeronautical knowledge requirements specified in section 61.309, the flight proficiency requirements specified in section 61.311, and the aeronautical experience requirements specified in section 61.313;
2. pass the knowledge test for a Sport Pilot Certificate specified in 14 CFR part 61, section 61.307 or the knowledge test for a Flight Instructor Certificate with a sport pilot rating specified in section 61.405;
3. pass the practical test for a Sport Pilot Certificate specified in 14 CFR part 61, section 61.307;

**Change 1 (6/9/06)**

4. provide the FAA with a certified copy of your ultra-light pilot records from an FAA-recognized ultra-light organization, and those records must—
  - a. document that you are a registered ultra-light pilot with that FAA-recognized ultra-light organization; and
  - b. indicate that you are recognized to operate each category and class of aircraft for which you seek sport pilot privileges.

**Sport Pilot—Additional Privileges**

If you hold a Sport Pilot Certificate or higher and seek to operate an additional category or class of light-sport aircraft (14 CFR part 61, section 61.321), you must:

1. receive a logbook endorsement from the authorized instructor who trained you on the applicable aeronautical knowledge areas specified in 14 CFR part 61, section 61.309 and areas of operation specified in section 61.311. The endorsement certifies you have met the aeronautical knowledge and flight proficiency requirements for the additional light-sport aircraft privileges you seek;
2. successfully complete a proficiency check from an authorized instructor other than the one who trained you on the aeronautical knowledge areas and areas of operation specified in 14 CFR part 61, sections 61.309 and 61.311 for the additional light-sport aircraft privilege you seek;
3. complete an application for those privileges on a form in a manner acceptable to the FAA and present this application to the authorized instructor who conducted the proficiency check specified in above paragraph;
4. receive a logbook endorsement from the instructor who conducted the proficiency check specified in 2 above, certifying you are proficient in the applicable areas of operation and aeronautical knowledge areas and that you are authorized for the additional category and class light-sport aircraft privilege.

**Aircraft and Equipment Required for the Practical Test/Proficiency Check**

The applicant for a Sport Pilot Certificate is required in accordance with 14 CFR part 61, section 61.45, to provide an aircraft that has a current airworthiness certificate and is in a condition for safe flight, for use during the practical test or proficiency check. This section further requires that the aircraft must:

1. be of U.S., foreign or military registry of the same category, class, and type, if applicable, for the certificate or privileges for which the applicant is applying;
2. have fully functioning dual controls, except as provided for in 14 CFR part 61, section 61.45(c), (e), and (f); and
3. be capable of performing all AREAS OF OPERATION appropriate to the privileges sought and have no operating limitations, which prohibit its use in any of the AREAS OF OPERATION required for the practical test or proficiency check.
4. have an altitude, airspeed, and a heading indicating system, as appropriate, for all tasks that require demonstration of skill within an altitude/airspeed/heading tolerance.

**The aircraft utilized for sport pilot and sport pilot flight instructor practical tests and proficiency checks must be a light-sport aircraft as defined in 14 CFR part 1.**

**Single-Seat Aircraft Practical Test**

Applicants for a Sport Pilot Certificate may elect to take their test in a single-seat aircraft. The FAA established in 14 CFR part 61, section 61.45(f) specific requirements to allow a practical test for a Sport Pilot Certificate only. This provision does not allow a practical test for a Flight Instructor Certificate or Recreation Pilot Certificate or higher to be conducted in a light-sport aircraft that has a single-pilot seat.

With certain limitations, the practical test for a Sport Pilot Certificate may be conducted from the ground by an examiner. The examiner must agree to conduct the practical test in a single-seat aircraft and must ensure that the practical test is conducted in accordance with the sport pilot practical test standards for single-seat aircraft. **Knowledge of all TASKs applicable to their category/class of aircraft will be evaluated orally.** Single-seat sport pilots shall demonstrate competency in those specific TASKs identified by a NOTE in the AREA OF OPERATION for a single-seat practical test and any other TASKs selected by the examiner. Examiners evaluating single-seat applicants from the ground shall evaluate only those TASK **elements** that can be accurately assessed from the ground.

#### **Change 1 (6/9/06)**

The examiner **must maintain radio contact** with the applicant and be in a position to observe the operation of the aircraft while evaluating the proficiency of the applicant from the ground.

Sport pilots taking the practical test in a single-seat aircraft will have the limitation "No passenger carriage and flight in a single-pilot seat aircraft only" placed on their certificate, per 61.45 (f) (3), limiting their operations to a single-seat light-sport aircraft and no passenger carriage will be authorized.

Only an examiner is authorized to remove this limitation when the sport pilot takes a practical test in a two-place light-sport aircraft. This practical test may be conducted in the same or additional category of aircraft.

Upon successful completion of the practical test, the limitation will be removed, and the sport pilot is authorized to act as pilot in command in all categories of light-sport aircraft that he or she has a make and model endorsement within a set of aircraft to operate. The limitation can also be removed if the sport pilot completes the certification requirements in an aircraft with a minimum of two places, for a higher certificate or rating.

#### **Single-Seat Aircraft Proficiency Check**

Sport pilot proficiency checks may be performed in a single-seat aircraft. The FAA believes it is appropriate for an instructor to perform a proficiency check for an additional category or privilege in accordance with 14 CFR part 61, section 61.321, to be added to a Sport Pilot Certificate or higher using a single-seat light-sport aircraft, providing the authorized instructor is an examiner. When an examiner conducts a proficiency check they are acting in the capacity of an authorized instructor.

The authorized instructor must agree to conduct the practical test in a single-seat light-sport aircraft and must ensure that the proficiency check is conducted in accordance with the sport pilot practical test standards for single-seat aircraft. Knowledge of all TASKs applicable to the category or class of aircraft will be evaluated orally. Those pilots seeking sport pilot privileges in a single-seat light-sport aircraft shall demonstrate competency in those specific TASKs identified by a NOTE in the AREA OF OPERATION for a single-seat proficiency check and any other TASKs selected by the authorized instructor. Authorized instructors evaluating single-seat applicants from the ground shall evaluate only those TASK **elements** that can be accurately assessed from the ground.

**The authorized instructor must have radio contact and be in a position to observe the operation of the light-sport aircraft and evaluate the proficiency of the applicant from the ground.**

On successful completion of a proficiency check, the authorized instructor will issue an endorsement with the following limitation "No passenger carriage and flight in a single-pilot seat aircraft only (add category/class/make and model)" limiting his or her operations to a single-seat aircraft in this category, class, make, and model. The authorized instructor must sign this endorsement with his or her flight instructor and examiner number.

This limitation can be removed by successfully completing a complete proficiency check, in a two-seat light-sport aircraft in that specific category and class, in accordance with 14 CFR part 61, section 61.321. This proficiency check must be conducted in the same category and class of light-sport aircraft. Upon successful completion of the proficiency check, the applicant will be given an endorsement for the aircraft privilege sought.

Those recreational pilots or higher exercising sport pilot privileges will be required to have an endorsement for only the category and/or class of light-sport aircraft they are now authorized to act as pilot in command. A sport pilot will be required to have an endorsement for the category, class, make, and model within a set of aircraft in which he or she is now authorized to act as pilot in command.

#### **Flight Instructor Responsibility**

An appropriately rated flight instructor is responsible for training the sport pilot applicant to acceptable standards in **ALL** subject matter areas, procedures, and maneuvers included in the TASKs within each AREA OF OPERATION in the appropriate sport pilot practical test standard.

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.

Throughout the applicant's training, the flight instructor is responsible for emphasizing the performance of effective visual scanning and collision avoidance procedures.

## **Examiner Responsibility**

The examiner conducting the practical test or authorized instructor conducting the proficiency check is responsible for determining that the applicant meets the acceptable standards of knowledge and skill of each TASK within each appropriate AREA OF OPERATION. Since there is no formal division between the “oral” and “skill” portions of the practical test or proficiency check, this oral portion becomes an ongoing process throughout the test. Oral questioning, to determine the applicant’s knowledge of TASKs and related safety factors, should be used judiciously at all times, especially during the flight portion of the practical test or proficiency check. Examiners and authorized instructors shall test to the greatest extent practicable the applicant’s correlative abilities rather than mere rote enumeration of facts throughout the practical test or proficiency check.

If the examiner or authorized instructor determines that a TASK is incomplete, or the outcome uncertain, the examiner may require the applicant to repeat that TASK, or portions of that TASK. This provision has been made in the interest of fairness and does not mean that instruction, practice, or the repeating of an unsatisfactory TASK is permitted during the certification process. When practical, the remaining TASKs of the practical test or proficiency check phase should be completed before repeating the questionable TASK.

The examiner or authorized instructor shall use scenarios when applicable to determine that the applicant can use good risk management procedures in making aeronautical decisions. Examples of TASKs where scenarios would be advantageous are weather analysis, performance planning, and runway/landing area selection.

Throughout the flight portion of the practical test or proficiency check, the examiner or authorized instructor shall evaluate the applicant’s knowledge and practical incorporation of special emphasis areas.

### **Initial Check—Sport Pilot-Satisfactory Performance**

Satisfactory performance of TASKs to meet the requirements for sport pilot certification are based on the applicant’s ability to safely:

1. perform the TASKs specified in the AREAS OF OPERATION for the certificate and privileges sought within the approved standards;
2. demonstrate mastery of the aircraft with the successful outcome of each TASK performed never seriously in doubt;
3. demonstrate satisfactory proficiency and competency within the approved standards;

4. demonstrate sound judgment in aeronautical decision making/risk management; and
5. demonstrate single-pilot competence in an aircraft with a single-pilot seat (if applicable).

#### **Initial Check—Sport Pilot-Unsatisfactory Performance**

The tolerances represent the performance expected in good flying conditions. If, in the judgment of the examiner, the applicant does not meet the standards of performance of any TASK performed, the associated AREA OF OPERATION is failed and therefore, the practical test is failed.

The examiner or applicant may discontinue the test at any time when the failure of an AREA OF OPERATION makes the applicant ineligible for the certificate. **The test may be continued ONLY with the consent of the applicant.**

If the test is discontinued, the applicant is entitled credit for only those AREAS OF OPERATION and their associated TASKs satisfactorily performed. However, during the retest, and at the discretion of the examiner, any TASK may be re-evaluated, including those previously passed.

The following are typical areas of unsatisfactory performance and grounds for disqualification.

1. Any action or lack of action by the applicant that requires corrective intervention by the examiner 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 Notice of Disapproval is issued, the examiner shall record the applicant's unsatisfactory performance in terms of the AREA OF OPERATION 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 shall also be recorded. If the applicant fails the practical test because of a special emphasis area, the Notice of Disapproval shall indicate the associated TASK. For example, SECTION 1, V. AREA OF OPERATION: PERFORMANCE MANEUVERS, TASK B: ASCENTS AND DESCENTS, failure to use proper collision avoidance procedures.

**Proficiency Check—Sport Pilot-Satisfactory Performance when Adding an Additional Category/Class**

Satisfactory performance of TASKs to add category/class privileges is based on the applicant's ability to safely:

1. perform the TASKs specified in the AREAS OF OPERATION for the certificate or privileges sought within the approved standards;
2. demonstrate mastery of the aircraft with the successful outcome of each TASK performed never seriously in doubt;
3. demonstrate satisfactory proficiency and competency within the approved standards;
4. demonstrate sound judgment in aeronautical decision making/risk management; and
5. demonstrate single-pilot competence.

When an applicant is adding a category/class privileges to his or her Sport Pilot Certificate, the authorized instructor, upon satisfactory completion of the proficiency check, shall endorse the applicant's logbook indicating that the applicant is qualified to operate the additional sport pilot category/class of aircraft. The authorized instructor shall forward FAA Form 8710-11 to Airman Registry within 10 days.

**Proficiency Check—Sport Pilot-Unsatisfactory Performance when Adding an Additional Category/Class**

When the applicant's performance does not meet the standards in the PTS, the authorized instructor conducting the proficiency check shall annotate the unsatisfactory performance on the FAA Form 8710-11 and forward it to Airman Registry within 10 days. A Notice of Disapproval will **NOT** be issued in this instance; rather, the applicant should be provided with a list of the AREAS OF OPERATION and the specific TASKs not meeting the standard, so that the applicant may receive additional training.

When the applicant receives the additional training in the AREAS OF OPERATION and the specific TASK(s) found deficient during the proficiency check, the recommending instructor shall endorse the applicant's logbook indicating that the applicant has received additional instruction and has been found competent to pass the proficiency check. The applicant shall complete a new FAA Form 8710-11, and the recommending instructor shall endorse the application. The authorized instructor, other than the one who provided the additional training, shall evaluate the applicant. When the applicant successfully accomplishes a

complete proficiency check, the authorized instructor, shall forward the FAA Form 8710-11 to Airman Registry within 10 days and endorse the applicant's logbook indicating the airman's additional category/class privileges.

### **Single-Pilot Resource Management**

Single-Pilot Resource Management refers to the effective use of ALL available resources: human resources, hardware, and information. It is similar to Crew Resource Management (CRM) procedures that are being emphasized in multi-crewmember operations except that only one crewmember (the pilot) is involved. Human resources "...includes all other groups routinely working with the pilot who are involved in decisions that are required to operate a flight safely. These groups include, but are not limited to: dispatchers, weather briefer, maintenance personnel, and air traffic controllers." Single-pilot Resource Management is not a single TASK; it is a set of skill competencies that must be evident in all TASKs in this practical test standard as applied to single-pilot operation.

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

Throughout the practical test or proficiency check, the applicant is evaluated on the use of an appropriate checklist (if specified by the manufacturer.) 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. 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 or Proficiency Checks**

Numerous studies indicate that many accidents have occurred when the pilot has been distracted during critical phases of flight. To evaluate the applicant's ability to utilize proper control technique while dividing attention both inside and/or outside the cockpit, the examiner or authorized instructor shall cause realistic distractions during the flight portion of the practical test or proficiency check 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-step process in the exchange of flight controls between pilots is a proven procedure and one that is strongly recommended.

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

### **Letter of Discontinuance**

When a practical test is discontinued for reasons other than unsatisfactory performance (i.e., equipment failure, weather, or illness) FAA Form 8710-11, and, if applicable, the Airman Knowledge Test Report, shall be returned to the applicant. The examiner at that time shall prepare, sign, and issue 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 shall be advised that the Letter of Discontinuance shall be presented to the examiner when the practical test is resumed, and made part of the certification file.

### **Aeronautical Decision Making and Risk Management**

The examiner or authorized instructor shall evaluate the applicant's ability throughout the practical test or proficiency check to use good aeronautical decision making procedures in order to evaluate risks. The examiner or authorized instructor shall accomplish this requirement by developing scenarios that incorporate as many TASKs as possible to evaluate the applicants risk management in making safe aeronautical decisions. For example, the examiner or authorized instructor may develop a scenario that incorporates weather decisions and performance planning.

**SECTION 1**

**SPORT PILOT**

**AIRSHIP**

# SECTION 1—CONTENTS

## SPORT PILOT AIRSHIP

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# APPLICANT'S PRACTICAL TEST CHECKLIST

## APPOINTMENT WITH EXAMINER:

EXAMINER'S NAME \_\_\_\_\_

LOCATION \_\_\_\_\_

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

### ACCEPTABLE AIRCRAFT

- Aircraft Documents: Airworthiness Certificate, Registration Certificate, and Operating Limitations
- Aircraft Maintenance Records: Logbook Record of Inspections/Airworthiness Directives/Safety Directives
- Pilot's Operating Handbook or FAA-Approved Flight Manual or Manufacturer's Operating Instructions

### PERSONAL EQUIPMENT

- Current Aeronautical Chart
- Flight Logs
- Current AFD and Appropriate Publications

### PERSONAL RECORDS

- Identification—Photo/Signature ID
- Pilot Certificate
- Medical Certificate or Driver's License
- Completed FAA Form 8710-11, Application for an Airman Certificate and/or Rating—Light Sport
- Airman Knowledge Test Report
- Logbook with Instructor's Endorsement
- FAA Form 8060-5, Notice of Disapproval (if applicable)
- Examiner's Fee (if applicable)

**EXAMINER'S PRACTICAL TEST CHECKLIST**

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

LOCATION \_\_\_\_\_

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

**I. PREFLIGHT PREPARATION**

- A. Certificates and Documents
- B. Airworthiness Requirements
- C. Weather Information
- D. Cross-Country Flight Planning
- E. National Airspace System
- F. Operation of Systems
- G. Aeromedical Factors
- H. Performance and Limitations
- I. Principles of Flight

**II. PREFLIGHT PROCEDURES**

- A. Preflight Inspection
- B. Cockpit Management
- C. Engine Starting
- D. Unmasting and Positioning for Takeoff
- E. Ground Handling
- F. Before Takeoff Check

**III. AIRPORT OPERATIONS**

- A. Radio Communications
- B. Traffic Patterns
- C. Airport and Runway Markings and Lighting

**IV. TAKEOFFS, LANDINGS, AND GO-AROUNDS**

- A. Ground Weigh-Off
- B. Up-Ship Takeoff
- C. Wheel Takeoff
- D. Approach and Landing
- E. Go-Around

## **V. PERFORMANCE MANEUVERS**

- A. Straight-and-Level Flight
- B. Ascents and Descents
- C. Level Turns
- D. In-Flight Weigh-Off
- E. Manual Pressure Control
- F. Static and Dynamic Trim

## **VI. GROUND REFERENCE MANEUVERS**

- A. Rectangular Course
- B. Turns Around a Point

## **VII. NAVIGATION**

- A. Pilotage and Dead Reckoning
- B. Diversion
- C. Lost Procedures

## **VIII. EMERGENCY OPERATIONS**

- A. Engine Fire During Flight
- B. Envelope Emergencies
- C. Free Ballooning
- D. Ditching and Emergency Landing
- E. Systems and Equipment Malfunctions
- F. Emergency Equipment and Survival Gear

## **IX. POSTFLIGHT PROCEDURES**

- A. Masting
- B. Post-masting

## I. AREA OF OPERATION: PREFLIGHT PREPARATION

### A. TASK: CERTIFICATES AND DOCUMENTS

REFERENCES: 14 CFR parts 43, 61, 91; FAA-H-8083-3, FAA-H-8083-25; POH/AFM/FAA Operating Limitations.

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

1. Explaining—
  - a. certificate privileges, limitations, and currency experience.
  - b. medical eligibility.
  - c. pilot logbook or flight records.
2. Locating and explaining—
  - a. airworthiness and registration certificates.
  - b. operating limitations, placards, instrument markings, and flight training supplement.
  - c. weight and balance data and/or equipment list, as applicable.

### B. TASK: AIRWORTHINESS REQUIREMENTS

REFERENCES: 14 CFR part 91; FAA-H-8083-25; Aircraft Operating Limitations.

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

1. Explaining—
  - a. required instruments and equipment for sport pilot privileges.
  - b. procedures and limitations for determining if the aircraft, with inoperative instruments and/or equipment, is airworthy or in a condition for safe flight.
2. Explaining—
  - a. airworthiness directives/safety directives. (As applicable to the aircraft brought for flight test.)
  - b. maintenance/inspection requirements and appropriate record keeping.

**C. TASK: WEATHER INFORMATION**

REFERENCES: 14 CFR part 91; AC 00-6, AC 00-45, AC 61-134; FAA-H-8083-25, AC 61-84; AIM.

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

1. Exhibits knowledge of the elements related to real time weather information appropriate to the specific category/class aircraft by consulting the weather reports, charts, and forecasts from aeronautical weather reporting sources.
2. Makes a competent "go/no-go" decision based on available weather information.
3. Describes importance of avoiding adverse weather and inadvertent entry into instrument meteorological conditions (IMC).
4. Explains courses of action to safely exit from an inadvertent IMC encounter.

**D. TASK: CROSS-COUNTRY FLIGHT PLANNING**

REFERENCES: 14 CFR part 91; FAA-H-8083-25; AC 61-84; Navigation Charts; AFD; AIM.

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

1. Exhibits knowledge of the elements related to cross-country flight planning appropriate to the category/class aircraft.
2. Uses appropriate and current aeronautical charts.
3. Properly identifies airspace, obstructions, and terrain features.
4. Selects easily identifiable en route checkpoints, as appropriate.
5. Selects most favorable altitudes considering weather conditions and equipment capabilities.
6. Computes headings, flight time, and fuel requirements.
7. Selects appropriate navigation system/facilities and communication frequencies, if so equipped.
8. Applies pertinent information from NOTAMs, AFD, and other flight publications.
9. Completes navigation log and simulates filing a VFR flight plan.

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

REFERENCES: 14 CFR parts 71, 91; Navigation Charts; AIM.

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

1. Basic VFR weather minimums, operating rules, pilot certification, and aircraft equipment requirements for the following classes of airspace—
  - a. Class B.
  - b. Class C.
  - c. Class D.
  - d. Class E.
  - e. Class G.
2. Special use and other airspace areas.
3. Temporary flight restrictions (TFRs).

## **F. TASK: OPERATION OF SYSTEMS**

REFERENCES: FAA-H-8083-25; POH/AFM.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to the operation of systems on the light-sport aircraft provided for the flight test by explaining at least three (3) of the following systems:

1. Surface control systems.
2. Flight instruments and associated controls.
3. Landing gear.
4. Engines.
5. Propellers.
6. Fuel and oil system.
7. Electrical system.
8. Envelope/ballonet pressure systems.
9. Environmental system.
10. Avionics and auxiliary equipment.
11. Any system unique to the airship flown.
12. Ground support equipment.

**G. TASK: AEROMEDICAL FACTORS**

REFERENCES: FAA-H-8083-25; AIM.

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

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

## H. TASK: PERFORMANCE AND LIMITATIONS

REFERENCES: FAA-H-8083-1, FAA-H-8083-3, FAA-H-8083-25; Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and appropriate data, if available from the manufacturer, to determine performance in various phases of flight, including operational characteristics and loading, and the adverse effects of exceeding limitations.
2. Computes operating weight, maximum load, and trim condition.
3. Determines airship performance with regard to—
  - a. weight limitations.
  - b. static and dynamic lift capability.
  - c. effect of superheat on ballonet(s) and percent of fullness.
  - d. effect of gas purity and superheat on lift.
  - e. temperature and humidity changes on performance and lift.
  - f. temperature inversion on descents.
  - g. leaks in ballonet(s) and envelope.
  - h. average ballonet volume with respect to total envelope volume and service ceiling.
  - i. loss of gross lift when above pressure height.
  - j. relationship of ballonet fullness to pressure height.
4. Determines airship performance, considering the effects of the following conditions—
  - a. weights and lift (static and dynamic).
  - b. relationship of ballonet fullness to pressure height.
  - c. superheat on percent of fullness.
  - d. average ballonet volume with respect to total envelope volume.
  - e. loss of gross lift when above pressure height.
  - f. leaks in ballonets and envelope.
  - g. gas purity on lift.
  - h. superheat on lift.
  - i. maximum rate climb and descent limitations.

## I. TASK: PRINCIPLES OF FLIGHT

REFERENCE: Airship Flight Manual.

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

1. Aerostatics—
  - a. physical properties of gases.
  - b. laws of Archimedes, Bernoulli, Boyle, and Charles.
  - c. application of these laws (pressure height, superheat, buoyancy).
  - d. lift (gross, net, useful, disposable).
2. Aerodynamics—
  - a. fineness ratio.
  - b. aerodynamic pressure.
  - c. dynamic lift/drag.

## II. AREA OF OPERATION: PREFLIGHT PROCEDURES

**NOTE:** For single-seat applicants, the examiner shall select at least TASKs A, C, D, and E as applicable to the aircraft.

### A. TASK: PREFLIGHT INSPECTION

REFERENCES: FAA-H-8083-3; Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to preflight inspection. This shall include which items must be inspected, the reasons for checking each item, and how to detect possible defects.
2. Inspects the airship with reference to the checklist.
3. Verifies the airship is in condition for safe flight.

### B. TASK: COCKPIT MANAGEMENT

REFERENCES: FAA-H-8083-3; Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to cockpit management procedures.
2. Ensures all loose items in the cockpit and passenger area are secured.
3. Briefs passenger on the use of safety belts and emergency procedures.
4. Organizes essential material and equipment in a logical, efficient flow pattern.
5. Maintains orderly records reflecting progress of the flight, as appropriate.

**C. TASK: ENGINE STARTING**

REFERENCES: FAA-H-8083-3, FAA-H-8083-25; Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to engine starting. This shall include the use of an external power source and starting under various atmospheric conditions, as appropriate.
2. Observes safety precautions related to starting, considering open hangars, other aircraft, and the safety of nearby persons and property on the ramp.
3. Accomplishes the correct starting procedure including proper adjustment of engine controls.
4. Prevents movement of airship during and after start.
5. Completes the appropriate checklist.

**D. TASK: UNMASTING AND POSITIONING FOR TAKEOFF**

REFERENCE: Airship Flight Manual.

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

1. Briefs ground crew and coordinates hand signals and voice commands.
2. Prevents airship from riding up on the mast.
3. Ensures proper envelope pressure and trim before coming off the mast.
4. Uses ground crew and airship controls properly to move away from the mast and into position for takeoff.
5. Divides attention inside and outside the cockpit so as to avoid possible immediate takeoff after coming off the mast.
6. Completes the appropriate checklist.

### **E. TASK: GROUND HANDLING**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to ground handling, appropriate to the airship provided for the practical test.
2. Determines the required number of crew members, considering the weather conditions, the status of the airship, and the method of handling.
3. Briefs the ground crew on all pertinent phases of ground handling procedures.
4. Maintains coordination with the crew chief and the proper use of hand signals and voice commands with the crew.
5. Recognizes undesirable airship movement and takes appropriate action.
6. Maintains proper envelope pressure and trim and alertness for wind shifts.
7. Maintains proper position while controlled by the ground crew.

### **F. TASK: BEFORE TAKEOFF CHECK**

REFERENCES: FAA-H-8083-3; Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to the before takeoff check.
2. Positions the airship properly to avoid hazards.
3. Divides attention inside and outside the cockpit.
4. Ensures that engine temperatures and pressures are suitable for run-up and takeoff.
5. Accomplishes the before takeoff check and confirms that the airship is in safe operating condition.
6. Reviews takeoff performance, wind direction and speed, expected takeoff distance, emergency procedures, and the departure procedure.
7. Ensures that the takeoff path is clear of obstacles.
8. Assures no conflict with traffic prior to takeoff.
9. Completes the appropriate checklist.

### III. AREA OF OPERATION: AIRPORT OPERATIONS

#### A. TASK: RADIO COMMUNICATIONS

**NOTE:** If the aircraft is not radio equipped, this TASK shall be tested orally for procedures ONLY

REFERENCES: 14 CFR Part 91; FAA-H-8083-25; AIM.

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

1. Exhibits knowledge of the elements related to radio communications at airports without operating control towers.
2. Selects appropriate frequencies.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications.

#### B. TASK: TRAFFIC PATTERNS

REFERENCES: FAA-H-8083-3, FAA-H-8083-25; AIM.

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

1. Exhibits knowledge of the elements related to traffic patterns. This shall include operations at controlled and uncontrolled airports, runway incursion and collision avoidance, wake turbulence avoidance, and wind shear.
2. Complies with traffic pattern procedures.
3. Maintains proper spacing from other traffic.
4. Corrects for wind drift to maintain the proper ground track.
5. Maintains orientation with the runway or landing area to be used.
6. Establishes a final approach at an appropriate distance from the runway or landing area.
7. Maintains the appropriate traffic pattern altitude,  $\pm 200$  feet.
8. Maintains airspeed for the current static condition of the airship.

**C. TASK: AIRPORT AND RUNWAY MARKINGS AND LIGHTING**

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

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

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

#### **IV. AREA OF OPERATION: TAKEOFFS, LANDINGS, AND GO-AROUNDS**

**NOTE:** For single-seat applicants, the examiner shall select at all TASKs.

##### **A. TASK: GROUND WEIGH-OFF**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to ground weigh-off.
2. Determines the static and trim condition.
3. Maintains zero inclination and heading into the wind.
4. Prevents fore-and-aft surge.
5. Checks weigh-off and trim with neutral elevators when HANDS OFF command is given.
6. Ballasts the airship according to the conditions and type of flight contemplated without exceeding the weight limits.
7. Completes the appropriate checklist.

##### **B. TASK: UP-SHIP TAKEOFF**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to an upwind takeoff.
2. Determines heaviness limitations and weather conditions under which an up-ship takeoff may be made.
3. Ensures that sufficient ground crew is available so as to obtain adequate upward velocity.
4. Idles engines and uses the rudder as necessary during weigh-off.
5. Remains within the takeoff heaviness limits.
6. Uses proper and timely hand signals and voice commands with ground crew.
7. Applies up elevator pressure as ground crew lifts airship and transitions to a nose-up attitude keeping tail clear of the ground.
8. Applies power as the airship nears the top of its upward thrust.
9. Prevents the tail from striking the ground.
10. Increases airspeed sufficiently to carry the load dynamically.
11. Completes the appropriate checklist.

**C. TASK: WHEEL TAKEOFF**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to a wheel takeoff. This shall include a wheel takeoff under various degrees of heaviness, including maximum heavy conditions.
2. Determines the approximate takeoff roll and ensures that the area is clear and sufficient, considering wind conditions and field surface.
3. Positions the airship to utilize the maximum available takeoff area and maintains trim.
4. Uses the proper hand signals and voice commands with the ground crew.
5. Applies power slowly, in a timely manner.
6. Attains sufficient airspeed to carry the load dynamically while on the wheel.
7. Uses elevators to assist the airship in lifting dynamically.
8. Maintains directional control and the proper inclination to keep the tail off the ground.
9. Completes the appropriate checklist.

**D. TASK: APPROACH AND LANDING**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to an approach and landing, including light and heavy airships.
2. Accomplishes static weigh-off prior to commencing the approach.
3. Adjusts trim, as necessary, for landing, considering weight and condition of air.
4. Coordinates flight and power controls, as necessary.
5. Makes smooth and gradual approach maintaining direction and angle of descent.
6. Recognizes and adheres to waveoff signals.
7. Lands at a speed appropriate for approaching the ground crew.
8. Reverses thrust, if applicable.
9. Completes the appropriate checklist.

**E. TASK: GO-AROUND**

REFERENCE: Airship Flight Manual.

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

1. Makes a timely decision to discontinue the approach to landing.
2. Uses correct procedures for a light or heavy airship, as appropriate.
3. Coordinates use of power and flight controls to effect a smooth transition to a climb attitude.
4. Completes the appropriate checklist.

## V. AREA OF OPERATION: PERFORMANCE MANEUVERS

**NOTE:** For single-seat applicants, the examiner shall select at least TASKs A, B, and C.

### A. TASK: STRAIGHT-AND-LEVEL FLIGHT

REFERENCE: Airship Flight Manual.

**Objective.** To determine that the applicant

1. Exhibits knowledge of the elements related to straight-and-level flight.
2. Uses the flight controls in a smooth, coordinated manner with minimum pitching and yawing.
3. Adjusts and maintains dynamic trim.
4. Maintains the specified altitude,  $\pm 200$  feet and the specified heading,  $\pm 20^\circ$ .

### B. TASK: ASCENTS AND DESCENTS

REFERENCE: Airship flight Manual.

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

1. Exhibits knowledge of the elements related to ascents and descents, including limitations.
2. Ascends and descends while keeping the gas pressure within operating limits.
3. Demonstrates proper pressure control and makes smooth altitude changes.
4. Controls rates of ascent and descent,  $\pm 300$  feet per minute.

### C. TASK: LEVEL TURNS

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to level turns.
2. Enters, maintains, and rolls out of level turns with smooth, coordinated control application.
3. Uses elevators and rudders properly to control effects of rolling tendency, loss of dynamic lift.
4. Maintains the specified altitude,  $\pm 200$  feet and rolls out on the assigned heading,  $\pm 20^\circ$ .

**D. TASK: IN-FLIGHT WEIGH-OFF**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to in-flight weigh-off.
2. Steers the airship into the wind in level flight at a minimum altitude of at least 500 feet AGL.
3. Reduces the power to the specified airspeed and stabilizes the airship.
4. Determines if the airship is being affected by updrafts or downdrafts.
5. Neutralizes the elevator and rudder controls.
6. Observes the attitude of the airship and pressure differential in the ballonets.
7. Determines trim and static condition.
8. Adjusts trim properly.

**E. TASK: MANUAL PRESSURE CONTROL**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to manual pressure control.
2. Controls the pressure manually as recommended by the manufacturer to a predetermined valve(s) setting.
3. Monitors operation of pressure valves and system.
4. Maintains a constant altitude,  $\pm 200$  feet.

**F. TASK: STATIC AND DYNAMIC TRIM**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to static and dynamic trim.
2. Establishes static trim for various weight conditions.
3. Establishes dynamic trim for various flight conditions.

## VI. AREA OF OPERATION: GROUND REFERENCE MANEUVERS

**NOTE:**The examiner shall select at least one ground reference maneuver.

**NOTE:**For single-seat applicants, the examiner shall select TASK A.

### A. TASK: RECTANGULAR COURSE

REFERENCES: FAA-H-8083-3; Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to a rectangular course.
2. Selects a suitable altitude and ground reference.
3. Plans the maneuver so as to enter at traffic pattern altitude, at an appropriate distance from the selected reference area.
4. Applies adequate wind drift correction during straight-and-turning flight to maintain a constant ground track around the rectangular reference area.
5. Divides attention between coordinated airship control and the ground track.
6. Maintains altitude,  $\pm 200$  feet.

### B. TASK: TURNS AROUND A POINT

REFERENCES: FAA-H-8083-3; Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to turns around a point.
2. Selects the ground reference point.
3. Plans the maneuver so as to not descend below 600 feet above the ground at an appropriate distance from the reference point.
4. Applies adequate wind drift correction to track a constant radius circle around the selected reference point.
5. Divides attention between airship control and the ground track, and maintains coordinated flight.
6. Maintains altitude,  $\pm 200$  feet.

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

### **A. TASK: PILOTAGE AND DEAD RECKONING**

REFERENCES: FAA-H-8083-3, FAA-H-8083-25.

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

1. Exhibits knowledge of the elements related to pilotage and dead reckoning.
2. Follows the preplanned course solely by visual reference to landmarks.
3. Identifies landmarks by relating the surface features to chart symbols.
4. Navigates by means of precomputed headings, groundspeed, and elapsed time.
5. Makes a reasonable estimate of heading, groundspeed, arrival time, and fuel consumption to the destination.
6. Corrects for, and records, the differences between preflight fuel, groundspeed, and heading calculations and those determined en route.
7. Verifies the airship's position within 3 nautical miles of the flight-planned route at all times.
8. Arrives at the en route checkpoints or destination within 5 minutes of the ETA.
9. Maintains the appropriate altitude,  $\pm 200$  feet and established heading,  $\pm 20^\circ$ .
10. Completes all appropriate checklists.

### **B. TASK: DIVERSION**

REFERENCES: FAA-H-8083-3, FAA-H-8083-25.

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

1. Exhibits knowledge of the elements related to diversion.
2. Selects an appropriate alternate airport and route.
3. Diverts promptly toward the alternate airport.
4. Makes a reasonable estimate of heading, groundspeed, arrival time, and fuel consumption to the alternate airport.
5. Maintains the appropriate altitude,  $\pm 200$  feet and established heading,  $\pm 20^\circ$ .

**C. TASK: LOST PROCEDURES**

REFERENCES: FAA-H-8083-3, FAA-H-8083-25.

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

1. Exhibits knowledge of the elements related to lost procedures.
2. Selects the best course of action when given a lost situation.
3. Maintains the original or an appropriate heading and climbs, if necessary.
4. Identifies the nearest concentration of prominent landmarks.
5. Uses navigation systems/facilities and/or contacts an appropriate ATC facility for assistance.

## VIII. AREA OF OPERATION: EMERGENCY OPERATIONS

**NOTE:** These TASKs are knowledge TASKs only.

### A. TASK: ENGINE FIRE DURING FLIGHT

REFERENCE: Airship Flight Manual.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to engine fire during flight by explaining the procedures used for:

1. Applying full power in an attempt to blow out the fire in the affected engine.
2. Extinguishing the fire.
3. Shutting down the engine, using the checklist, if the fire persists.
4. Preparing to land at the earliest opportunity.

### B. TASK: ENVELOPE EMERGENCIES

REFERENCE: Airship Flight Manual.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to envelope emergencies by explaining the procedures used for:

1. A puncture or rip in the gas envelope and/or in a ballonnet.
2. An excessive helium loss.
3. Rain /icing on the envelope.
4. Emergency valve operations.
5. Emergency air-to-helium operations.

**C. TASK: FREE BALLOONING**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to free ballooning.
2. Assesses airship static condition and determines ballast needs.
3. Establishes equilibrium in a timely manner.
4. Turns off all nonessential electrical equipment.
5. Determines cause of engine failure and attempts restart.
6. Selects suitable landing site and establishes communications with the crew.
7. Uses minimum helium valving and ballast dumping during descent.
8. Secures loose equipment.
9. Completes the appropriate emergency checklist.

**D. TASK: DITCHING AND EMERGENCY LANDING**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to ditching and emergency landing.
2. Simulates jettisoning ballast, considering potential fire hazard when dumping fuel.
3. Instructs passengers in safety procedures.
4. Ensures life jackets are on correctly, if ditching.
5. Secures loose equipment.
6. Simulates securing all systems to minimize chance of fire or other damage.
7. Completes the appropriate emergency checklist.

## **E. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS**

REFERENCE: Airship Flight Manual.

**NOTE:** The examiner shall not simulate a system or equipment malfunction in a manner that may jeopardize safe flight or result in possible damage to the airship.

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

1. Exhibits knowledge of the elements related to causes, indications and pilot actions for various systems and equipment malfunctions.
2. Analyzes the situation and takes action, appropriate to the airship used for the practical test, in at least three (3) of the following areas, if applicable—
  - a. Control system/actuator malfunction.
  - b. Fuel starvation.
  - c. Electrical system malfunction.
  - d. Propeller malfunction.
  - e. Pressure system malfunction.

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

REFERENCE: Airship Flight Manual.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to emergency equipment appropriate to the following environmental conditions:

1. Mountainous terrain.
2. Large bodies of water.
3. Desert conditions.
4. Extreme temperature changes.

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

**NOTE:** For single-seat applicants, the examiner shall select all TASKs applicable to the aircraft.

### **A. TASK: MASTING**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to masting.
2. Maintains coordination with crew chief through use of proper hand signals and voice commands.
3. Remains in control of airspeed and positions airship properly.
4. Coordinates use of power and flight controls.
5. Places airship in proper trim and ballast when approaching the mast.
6. Completes the appropriate checklist.

### **B. TASK: POST-MASTING**

REFERENCE: Airship Flight Manual.

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

1. Exhibits knowledge of the elements related to post-masting, appropriate to the airship used for the practical test.
2. Uses proper engine shutdown procedures.
3. Complies with equipment requirements for maintaining envelope pressure.
4. Ensures mast security relative to weather conditions.
5. Gives consideration to weather with the airship on the mast.
6. Completes the appropriate checklist.

**SECTION 2**

**SPORT PILOT**

**BALLOON**

## SECTION 2—CONTENTS

### SPORT PILOT BALLOON

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# APPLICANT'S PRACTICAL TEST CHECKLIST

## APPOINTMENT WITH EXAMINER:

EXAMINER'S NAME \_\_\_\_\_

LOCATION \_\_\_\_\_

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

### ACCEPTABLE AIRCRAFT

- Aircraft Documents: Airworthiness Certificate, Registration Certificate, and Operating Limitations
- Aircraft Maintenance Records: Logbook Record of Inspections/Airworthiness Directives/Safety Directives
- Pilot's Operating Handbook or FAA-Approved Flight Manual or Manufacturer's Operating Instructions

### PERSONAL EQUIPMENT

- Current Aeronautical Charts
- Computer and Plotter
- Flight Plan Form
- Flight Logs
- Current AIM, AFD, and Appropriate Publications

### PERSONAL RECORDS

- Identification—Photo/Signature ID
- Pilot Certificate
- Medical Certificate or Driver's License
- Completed FAA Form 8710-11, Application for an Airman Certificate and/or Rating—Sport Pilot
- Airman Knowledge Test Report
- Logbook with Instructor's Endorsement
- FAA Form 8060-5, Notice of Disapproval (if applicable)
- Examiner's Fee (if applicable)

## EXAMINER'S PRACTICAL TEST CHECKLIST

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

LOCATION \_\_\_\_\_

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

### I. PREFLIGHT PREPARATION

- A. Certificates and Documents
- B. Airworthiness Requirements
- C. Weather Information
- D. Flight Planning
- E. National Airspace System
- F. Operation of Systems
- G. Aeromedical Factors
- J. Performance and Limitations
- K. Principles of Flight

### II. PREFLIGHT PROCEDURES

- A. Launch Site Selection
- B. Crew Briefing and Preparation
- C. Layout and Assembly
- D. Preflight Inspection
- E. Inflation
- F. Basket/Gondola Management
- G. Pre-launch Check

### III. AIRPORT OPERATIONS

- A. Radio Communications

### IV. LAUNCHES AND LANDINGS

- A. Normal Launch
- B. Launch Over Obstacle
- C. Approach to Landing
- D. Normal Landing
- E. High-Wind Landing

## **V. PERFORMANCE MANEUVERS**

- A. Ascents
- B. Altitude Control (Level Flight)
- C. Descents
- D. Contour Flying
- E. Obstruction Clearance
- F. Tethering
- G. Winter Flying
- H. Mountain Flying

## **VI. NAVIGATION**

- Navigation

## **VII. EMERGENCY OPERATIONS**

- A. Systems and Equipment Malfunctions
- B. Emergency Equipment and Survival Gear
- C. Water Landing
- E. Thermal Flight

## **VIII. POSTFLIGHT PROCEDURES**

- A. Recovery
- B. Deflation and Packing
- C. Refueling

## I. AREA OF OPERATION: PREFLIGHT PREPARATION

### A. TASK: CERTIFICATES AND DOCUMENTS

REFERENCES: 14 CFR parts 43, 61, 91; FAA-H-8083-3, FAA-H-8083-25; POH/AFM/FAA Operating Limitations.

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

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

### B. TASK: AIRWORTHINESS REQUIREMENTS

REFERENCES: 14 CFR part 91; FAA-H-8083-11, FAA-H-8083-25; Aircraft Operating Limitations.

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

1. Explaining—
  - a. required instruments and equipment for day VFR.
  - b. procedures and limitations for determining airworthiness of aircraft with inoperative instruments and equipment.
2. Explaining—
  - a. airworthiness directives/safety directives. (As applicable to the aircraft brought for flight test.)
  - b. maintenance/inspection requirements and appropriate record keeping.

**C. TASK: WEATHER INFORMATION**

REFERENCES: 14 CFR part 91; AC 00-6, AC 00-45, AC 61-84, AC 61-134; FAA-H-8083-25; AIM.

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

1. Exhibits knowledge of the elements related to real time weather information appropriate to the specific category/class aircraft by consulting the weather reports, charts, and forecasts from aeronautical weather reporting sources.
2. Makes a competent "go/no-go" decision based on available weather information.
3. Describes importance of avoiding adverse weather and inadvertent entry into instrument meteorological conditions (IMC).
4. Explains courses of action to safely exit from an inadvertent IMC encounter.

**D. TASK: FLIGHT PLANNING**

REFERENCES: 14 CFR part 91; FAA-H-8083-25; AC 61-84; Navigation Charts; A/FD; AIM.

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

1. Exhibits knowledge of the elements related to flight planning appropriate to the aircraft.
2. Uses appropriate and current aeronautical charts.
3. Properly identifies airspace, obstructions, and terrain features.
4. Selects easily identifiable checkpoints, as appropriate.
5. Selects most favorable altitudes considering weather conditions and equipment capabilities.
6. Computes headings, flight time, and fuel requirements.
7. Selects appropriate navigation system/facilities and communication frequencies, if so equipped.
8. Applies pertinent information from NOTAMs, A/FD, and other flight publications.

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

REFERENCES: 14 CFR parts 71, 91; Navigation Charts; AIM.

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

1. Basic VFR weather minimums, operating rules, pilot certification, and aircraft equipment requirements for the following classes of airspace—
  - a. Class B.
  - b. Class C.
  - c. Class D.
  - d. Class E.
  - e. Class G.
2. Special use and other airspace areas.
3. Temporary flight restrictions (TFRs).

## **F. TASK: OPERATION OF SYSTEMS**

REFERENCES: FAA-H-8083-25; POH/AFM.

**Objective.** To determine that the applicant exhibits knowledge of the elements related to the operation of systems on the light-sport aircraft provided for the flight test by explaining at least three (3) of the following systems:

1. Fuel system, burners, pilot lights and associated gauges.
2. Venting and/or deflation systems.
3. Flight instruments and gauges.
4. Avionics/communications system, as appropriate.

## **G. TASK: AEROMEDICAL FACTORS**

REFERENCES: FAA-H-8083-25; AIM.

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

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

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

REFERENCES: FAA-H-8083-3, FAA-H-8083-11, FAA-H-8083-25; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of appropriate data, if available from the manufacturer, to determine performance. This shall include operational characteristics and loading, and the adverse effects of exceeding limitations.
2. Computes operating weight, maximum load, and expected envelope temperature, as related to maximum envelope temperature.
3. Determines balloon performance, considering density altitude, wind, other weather related conditions, and terrain.
4. Determines normal and maximum rates of ascent and descent, and the altitude required to arrest high rates of descent.
5. Determines envelope temperatures, including never-exceed temperature and maximum continuous temperature, if appropriate.
6. Determines whether the computed performance is within the balloon's capabilities and operating limitations.

## I. TASK: PRINCIPLES OF FLIGHT

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Physical laws applicable to balloon flight. Laws of Archimedes, Bernoulli, Boyle, and Charles.
2. Effects of changes in temperature, pressure, humidity, and altitude on maintaining equilibrium.
3. Effects of false or uncontrolled lift during takeoff, landing, and windshear penetration.

## II. AREA OF OPERATION: PREFLIGHT PROCEDURES

**NOTE:** For single-seat applicants, the examiner shall select at least TASKs A, B, C, D, E, F, and G.

### A. TASK: LAUNCH SITE SELECTION

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to launch site selection.
2. Arranges to launch with adequate time to complete the flight safely considering wind, weather conditions, and landing sites.
3. Selects a launch site with emphasis on—
  - a. suitable landing areas.
  - b. airspace considerations.
  - c. surface wind and winds aloft.
  - d. accessibility.
  - e. size and surface condition.
  - f. hazards and obstacles in the vicinity of the site.
4. Makes a competent “go/no-go” decision considering all of the factors involved in the selection of a safe launch site.

### B. TASK: CREW BRIEFING AND PREPARATION

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to crew briefing and preparation.
2. Designates a crew chief, if appropriate, and assigns each crewmember specific duties and responsibilities, considering the experience level of each crewmember.
3. Briefs crewmembers in all areas of the flight, including layout and assembly; tie-off, if appropriate; inflation; in-flight; landing; recovery; and emergency procedures.
4. Establishes a common means of communication, such as hand signals and/or two-way radio.
5. Describes the proposed direction of flight and the estimated time aloft.
6. Ensures that all necessary equipment is on board.
7. Supervises and coordinates all activities.
8. Completes the appropriate checklist.

### C. TASK: LAYOUT AND ASSEMBLY

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to layout and assembly.
2. Positions balloon properly, considering wind conditions and obstacles.
3. Checks fuel system for security, leaks, and correct fuel pressure.
4. Uses tie-off, if appropriate.
5. Assembles balloon as appropriate.
6. Completes the appropriate checklist.

**D. TASK: PREFLIGHT INSPECTION**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to visual inspection. This shall include which items must be inspected, the reasons for checking each item, and how to detect possible defects.
2. Inspects the balloon with reference to the checklist emphasizing the—
  - a. basket.
  - b. fuel system.
  - c. flight instruments.
  - d. fire extinguisher items.
  - e. envelope.
  - f. venting and/or deflation systems.
  - g. suspension and handling lines.
4. Verifies the balloon is in condition/airworthy for safe flight.
5. Completes the appropriate checklist.

#### **E. TASK: INFLATION**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to inflation.
2. Accomplishes the proper tie-off procedure, if appropriate.
3. Positions the inflater for cold inflation.
4. Begins ignition and hot air inflation.
5. Inflates the balloon to a vertical position.
6. Positions and secures the vent/deflation lines.
7. Completes the appropriate checklist.

#### **F. TASK: BASKET/GONDOLA MANAGEMENT**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to basket/gondola management procedures.
2. Ensures all loose items in the basket/gondola are secured.
3. Briefs passenger on the proper boarding, in-flight, and landing behavior and procedures.
4. Organizes material and equipment in a logical, efficient manner.
5. Completes the appropriate checklist.

#### **G. TASK: PRE-LAUNCH CHECK**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to the pre-launch check. This shall include the reasons for checking each item and how to detect malfunctions.
2. Reviews the wind conditions, temperatures, and obstructions.
3. Divides attention inside and outside the basket/gondola.
4. Performs final instrument check.
5. Ensures that the vent/deflation lines are positioned and secured properly.
6. Determines equilibrium.
7. Accomplishes the pre-launch check and confirms that the balloon is in condition/airworthy for safe flight.
8. Accomplishes final coordination with the ground crew, including signals and emergency procedures.
9. Assures no conflict with traffic prior to launch.
10. Completes the appropriate checklist.

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

#### **A. TASK: RADIO COMMUNICATIONS**

**NOTE:** If the aircraft is not radio equipped, this TASK shall be tested orally for procedures ONLY.

REFERENCES: 14 CFR part 91; FAA-H-8083-25; AIM.

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

1. Exhibits knowledge of the elements related to radio communications at airports without operating control towers.
2. Selects appropriate frequencies.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications.

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

**NOTE:** For single-seat applicants, the examiner shall select all TASKs.

##### **A. TASK: NORMAL LAUNCH**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to a normal launch.
2. Directs ground crew to clear the area.
3. Recognizes equilibrium.
4. Uses tie-off quick release line correctly, if appropriate.
5. Recognizes presence of false lift and wind conditions.
6. Coordinates lift-off and initial ascent.
7. Completes the appropriate checklist.

##### **B. TASK: LAUNCH OVER OBSTACLE**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to a launch over an obstacle.
2. Determines the height of the obstacle.
3. Considers the distance to the obstacle relative to the wind conditions.
4. Uses tie-off quick release line correctly, if appropriate.
5. Recognizes the presence of false lift.
6. Acts decisively so as to clear the obstacle safely.
7. Completes the appropriate checklist.

### **C. TASK: APPROACH TO LANDING**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to an approach to landing.
2. Considers the wind conditions, landing area, obstructions, and surface, and selects the most suitable touchdown point.
3. Establishes the appropriate approach profile and rate(s) of descent.
4. Ensures that each passenger is thoroughly briefed and positioned properly in accordance with landing conditions.
5. Stows loose articles and secures equipment, as appropriate.
6. Makes a timely decision to abort the approach, if necessary.
7. Completes the appropriate checklist.

### **D. TASK: NORMAL LANDING**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to a normal landing.
2. Prepares vent/deflation system for use.
3. Touches down within the designated area or aborts the landing and ascends as specified by the examiner.
4. Uses burner controls, vent/deflation system properly to stabilize balloon on touchdown.
5. Stabilizes balloon prior to passengers exiting.
6. Completes the appropriate checklist.

## **E. TASK: HIGH-WIND LANDING**

**NOTE:** If a high-wind condition does not exist, the applicant's knowledge of the TASK shall be evaluated through oral testing.

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to a high-wind landing.
2. Ensures a thorough briefing to include positioning of occupants and securing of equipment.
3. Identifies hazards associated with a high-wind landing.
4. Selects a landing site appropriate for high-wind conditions.
5. Prepares vent/deflation system for use.
6. Uses burner controls and vent/deflation system to land the balloon and control ground travel.
7. Touches down within the designated area or aborts the landing and ascends as specified by the examiner.
8. Extinguishes pilot lights at the appropriate time.
9. Completes the appropriate checklist.

## V. AREA OF OPERATION: PERFORMANCE MANEUVERS

**NOTE:** For single-seat applicants, the examiner shall select at least TASKs A, B, C, D, E, and F.

### A. TASK: ASCENTS

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to ascents.
2. Transitions from level flight to ascent, as specified by the examiner.
3. Ascends at an appropriate rate,  $\pm 100$  feet per minute.
4. Transitions from ascent to level flight at an altitude specified by the examiner,  $\pm 100$  feet.

### B. TASK: ALTITUDE CONTROL (LEVEL FLIGHT)

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to altitude control.
2. Recognizes vertical movement.
3. Maintains equilibrium by smooth use of burner controls.
4. Uses instruments to assist in altitude control.
5. Maintains assigned altitudes,  $\pm 100$  feet.

### C. TASK: DESCENTS

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to descents.
2. Transitions from level flight to descent, as specified by the examiner.
3. Descends at a specified rate,  $\pm 100$  feet per minute.
4. Transitions from descent to level flight at an altitude specified by the examiner,  $\pm 100$  feet.

**D. TASK: CONTOUR FLYING**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to contour flying.
2. Uses all controls properly to maintain the desired altitude, based on the appropriate clearance over terrain and obstacles.
3. Considers the effects of wind gusts, wind shear, thermal activity and orographic conditions.
4. Allows adequate clearance for livestock and other animals.
5. Divides attention between balloon control, ground track, visual scanning and forward surveillance.

**E. TASK: OBSTRUCTION CLEARANCE**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to obstruction clearance.
2. Recognizes obstructions, including powerlines, and allows time to take appropriate action.
3. Uses proper procedures to avoid obstructions.
4. Uses proper procedures when collision is imminent.

**F. TASK: TETHERING**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. The proper recognition of wind conditions and obstructions.
2. The recognition of the effects of false lift and wind gusts.
3. The recommended tethering procedure with emphasis on utilizing an adequate number of appropriate tether lines of adequate strength, in the proper location.
4. The briefing for ground crewmembers, to include crowd control.

**G. TASK: WINTER FLYING**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. The proper preparation, equipment, and survival supplies necessary for flight in cold temperatures.
2. The proper methods for pressurizing fuel tanks.
3. The added concerns for fuel vaporization, leaks, and risk of fire during cold weather.

**H. TASK: MOUNTAIN FLYING**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. The proper preparation, equipment, and survival supplies necessary for flight over mountainous terrain.
2. The accessibility to landing areas.
3. The recognition of cloud formations and descending air currents on the leeward side of mountains as evidence of possible turbulence.
4. The caution required in regard to windshear encounters and possible rapid weather changes.

## VI. AREA OF OPERATION: NAVIGATION

### A. TASK: NAVIGATION

REFERENCE: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to navigation.
2. Identifies airspace and altitude restrictions.
3. Identifies landmarks by relating surface features to chart symbols.
4. Verifies the balloon's position at all times.
5. Manages fuel properly.
6. Determines the duration of the flight, considering—
  - a. availability of suitable landing areas.
  - b. fuel consumption.
  - c. wind and other atmospheric conditions.
  - d. obstructions.
  - e. payload.
7. Notes the differences, if any, between preflight flight planning and the actual flight.
8. Completes the appropriate checklist.

## VII. AREA OF OPERATION: EMERGENCY OPERATIONS

**NOTE:** These TASKs are knowledge TASKs only.

### A. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to systems and equipment malfunctions appropriate to the balloon used for the practical test.
2. Analyzes the situation and takes the appropriate action for simulated emergencies, such as—
  - a. pilot light flameout or failure.
  - b. blast valve failure.
  - c. fuel exhaustion.
  - d. propane leak.
  - e. envelope failure.
  - f. any other systems and equipment malfunction appropriate to the balloon provided for the flight test.
3. Follows the appropriate emergency checklist.

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

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to emergency equipment and survival gear appropriate to the balloon provided for the practical test, such as—
  - a. location and purpose.
  - b. method of operation or use.
  - c. servicing requirements.
  - d. method of safe storage.
  - e. equipment and survival gear appropriate for operation in various climates and topographical environments.

**C. TASK: WATER LANDING**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. The emergency conditions under which water landings are necessary.
2. The effect of wind direction and speed, and water current.
3. The preparation required for contact with water, to include briefing passengers.
4. The procedure to be used for actual water landing.

**D. TASK: THERMAL FLIGHT**

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. The conditions that cause thermal activity.
2. The recognition of convective conditions and associated hazards.
3. The effects of thermal activity on balloon flight.
4. The procedures to be used upon encountering thermal activity.

## VIII. AREA OF OPERATION: POSTFLIGHT PROCEDURES

**NOTE:** For single-seat applicants, the examiner shall select TASKS A and B.

### A. TASK: RECOVERY

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to recovery.
2. Coordinates landing and recovery with landowner, as appropriate.
3. Minimizes property damage during recovery.
4. Supervises ground crew during recovery, including vehicle and spectator control.
5. Debriefs crewmembers on all flight activities.

### B. TASK: DEFLATION AND PACKING

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. Exhibits knowledge of the elements related to deflation and packing.
2. Ensures the fuel system is secure.
3. Deflates envelope properly, considering wind conditions and obstacles.
4. Disassembles envelope and basket components, as appropriate.
5. Packs and stores envelope, basket and components, and fuel system, as appropriate.
6. Performs satisfactory postflight inspection.
7. Completes the appropriate checklist.

### C. TASK: REFUELING

REFERENCES: FAA-H-8083-11; Balloon Flight Manual.

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

1. A crewmember briefing on safety precautions.
2. The danger of explosion and burns when handling propane.
3. The need for adequate ventilation.
4. Water contamination.
5. The proper method of filling the cylinders, as appropriate.

**SECTION 3**

**SPORT PILOT**

**FLIGHT INSTRUCTOR**

## SECTION 3—CONTENTS

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# APPLICANT'S PRACTICAL TEST CHECKLIST

## APPOINTMENT WITH EXAMINER:

EXAMINER'S NAME \_\_\_\_\_

LOCATION \_\_\_\_\_

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

### ACCEPTABLE AIRCRAFT

- Aircraft Documents: Airworthiness Certificate
- Registration Certificate
- Aircraft Maintenance Records: Airworthiness Inspections/Airworthiness Directives/Safety Directives
- Pilot's Operating Handbook or FAA-Approved Flight Manual or Manufacturer's Operating Instructions

### PERSONAL EQUIPMENT

- Current Aeronautical Charts
- Computer and Plotter
- Flight Plan Form
- Flight Logs
- Current AIM
- Current Airport Facility Directory

### PERSONAL RECORDS

- Identification—Photo/Signature ID
- Pilot Certificate
- Medical Certificate or Driver License
- Completed FAA Form 8710-11, Application for an Airman Certificate and/or Rating—Sport Pilot
- Airman Knowledge Test Report
- Logbook with Instructor's Endorsement
- FAA Form 8060-5, Notice of Disapproval (if applicable)
- Examiner's Fee (if applicable)

## EXAMINER'S PRACTICAL TEST CHECKLIST FOR FLIGHT INSTRUCTOR AIRSHIP

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

LOCATION \_\_\_\_\_

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

### I. FUNDAMENTALS OF INSTRUCTING

**Note: The examiner must select TASK F and one other TASK.**

- A. The Learning Process
- B. Human Behavior and Effective Communication
- 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

**Note: The examiner must select TASK D and at least one other TASK.**

- A. Aeromedical Factors
- B. Visual Scanning and Collision Avoidance
- C. Federal Aviation Regulations and Publications
- D. **Logbook Entries and Certificate Endorsements**

### III. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

**Note: The examiner must select at least one maneuver TASK.**

- A. **Maneuver Lesson**

Instructor applicants must be tested in the following areas of operation appropriate to the aircraft category/class instructor privileges they seek (refer to the appropriate category/class section of the PTS). Notes listed under each area of operation identify the TASKs that must be tested. In some cases the specific TASK is identified, in other cases a minimum number of TASKs are identified.

# EXAMINER'S PRACTICAL TEST CHECKLIST FOR FLIGHT INSTRUCTOR AIRSHIP—Continued

SEE SECTION 1 OF THE PTS

## AREAS OF OPERATION

### I. PREFLIGHT PREPARATION

**Note: The examiner must select two TASKs.**

- A. Certificates and Documents
- B. Airworthiness Requirements
- C. Weather Information
- D. Cross-Country Flight Planning
- E. National Airspace System
- F. Operation of Systems
- G. Aeromedical Factors
- H. Performance and Limitations
- I. Principles of Flight

### II. PREFLIGHT PROCEDURES

**Note: The examiner must select two TASKs.**

- A. Preflight Inspection
- B. Cockpit Management
- C. Engine Starting
- D. Unmasting and Positioning for Takeoff
- E. Ground Handling
- F. Before Takeoff Check

### III. AIRPORT OPERATIONS

**Note: The examiner must select TASK C.**

- A. Radio Communications
- B. Traffic Patterns
- C. **Airport and Runway Markings and Lighting**

### IV. TAKEOFFS, LANDINGS, AND GO-AROUNDS

**Note: The examiner must select TASKs A, B or C, and D or E.**

- A. Ground Weigh-Off
- B. Up-Ship Takeoff
- C. Wheel Takeoff

## EXAMINER'S PRACTICAL TEST CHECKLIST FOR FLIGHT INSTRUCTOR AIRSHIP—Continued

- D. Approach and Landing
- E. Go-Around

### V. PERFORMANCE MANEUVERS

**Note: The examiner must select two TASKs.**

- A. Straight-and-Level Flight
- B. Ascents and Descents
- C. Level Turns
- D. In-Flight Weigh-Off
- E. Manual Pressure Control
- F. Static and Dynamic Trim

### VI. GROUND REFERENCE MANEUVERS

**Note: The examiner must select one TASK.**

- A. Rectangular Course
- B. Turns Around a Point

### VII. NAVIGATION

**Note: The examiner must select one TASK.**

- A. Pilotage and Dead Reckoning
- B. Diversion
- C. Lost Procedures

### VIII. EMERGENCY OPERATIONS

**Note: The examiner must select one TASK.**

- A. Engine Fire During Flight
- B. Envelope Emergencies
- C. Free Ballooning
- D. Ditching and Emergency Landing
- E. Systems and Equipment Malfunctions
- F. Emergency Equipment and Survival Gear

**EXAMINER'S PRACTICAL TEST CHECKLIST FOR FLIGHT  
INSTRUCTOR AIRSHIP—Continued**

**IX. POSTFLIGHT PROCEDURES**

**Note: The examiner must select one TASK.**

- A. Masting
- B. Post-masting

## INSTRUCTOR'S PROFICIENCY CHECK CHECKLIST FOR FLIGHT INSTRUCTOR AIRSHIP

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

LOCATION \_\_\_\_\_

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

### I. FUNDAMENTALS OF INSTRUCTING

**Note: The instructor may select any of the below listed FOI TASKs for a proficiency check. However, these TASKs are not required on a proficiency check.**

- A. The Learning Process
- B. Human Behavior and Effective Communication
- 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

**Note: The instructor must select TASK D and at least one other TASK.**

- A. Aeromedical Factors
- B. Visual Scanning and Collision Avoidance
- C. Federal Aviation Regulations and Publications
- D. Logbook Entries and Certificate Endorsements**

### III. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

**Note: The instructor must select at least one maneuver TASK.**

#### A. Maneuver Lesson

Instructor applicants must be tested in the following areas of operation appropriate to the aircraft category/class instructor privileges they seek (refer to the appropriate category/class section of the PTS). Notes listed under each area of operation identify the TASKs that must be tested. In some cases, the specific TASK is identified by a **bold font**, and in other cases, a minimum number of TASKs are identified.

**INSTRUCTOR'S PROFICIENCY CHECK CHECKLIST FOR  
FLIGHT INSTRUCTOR AIRSHIP—Continued**

**SEE SECTION 1 OF THE PTS**

**AREAS OF OPERATION**

**I. PREFLIGHT PREPARATION**

**Note: The instructor must select TASKs F and I.**

- A. Certificates and Documents
- B. Airworthiness Requirements
- C. Weather Information
- D. Cross-Country Flight Planning
- E. National Airspace System
- F. Operation of Systems**
- G. Aeromedical Factors
- H. Performance and Limitations
- I. Principles of Flight**

**II. PREFLIGHT PROCEDURES**

**Note: The instructor must select TASKs A and D.**

- A. Preflight Inspection**
- B. Cockpit Management
- C. Engine Starting
- D. Unmasting and Positioning for Takeoff**
- E. Ground Handling
- F. Before Takeoff Check

**III. AIRPORT OPERATIONS**

**Note: The instructor must select TASK C.**

- A. Radio Communications
- B. Traffic Patterns
- C. Airport and Runway Markings and Lighting**

**IV. TAKEOFFS, LANDINGS, AND GO-AROUNDS**

**Note: The instructor must select TASKs A, B or C, and D or E.**

- A. Ground Weigh-Off
- B. Up-Ship Takeoff
- C. Wheel Takeoff

## INSTRUCTOR'S PROFICIENCY CHECK CHECKLIST FOR FLIGHT INSTRUCTOR AIRSHIP—Continued

- D. Approach and Landing
- E. Go-Around

### V. PERFORMANCE MANEUVERS

**Note: The instructor must select two TASKs.**

- A. Straight-and-Level Flight
- B. Ascents and Descents
- C. Level Turns
- D. In-Flight Weigh-Off
- E. Manual Pressure Control
- F. Static and Dynamic Trim

### VI. GROUND REFERENCE MANEUVERS

**Note: The instructor must select one TASK.**

- A. Rectangular Course
- B. Turns Around a Point

### VII. NAVIGATION

**Note: The instructor must select one TASK.**

- A. Pilotage and Dead Reckoning
- B. Diversion
- C. Lost Procedures

### VIII. EMERGENCY OPERATIONS

**Note: The instructor must select one TASK.**

- A. Engine Fire During Flight
- B. Envelope Emergencies
- C. Free Ballooning
- D. Ditching and Emergency Landing
- E. Systems and Equipment Malfunctions
- F. Emergency Equipment and Survival Gear

**INSTRUCTOR'S PROFICIENCY CHECK CHECKLIST FOR  
FLIGHT INSTRUCTOR AIRSHIP—Continued**

**IX. POSTFLIGHT PROCEDURES**

**Note: The instructor must select one TASK.**

- A. Masting
- B. Post-masting

## EXAMINER'S PRACTICAL TEST CHECKLIST FOR FLIGHT INSTRUCTOR BALLOON

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

LOCATION \_\_\_\_\_

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

### I. FUNDAMENTALS OF INSTRUCTING

**Note: The examiner must select TASK F and one other TASK.**

- A. The Learning Process
- B. Human Behavior and Effective Communication
- 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

**Note: The examiner must select TASK D and at least one other TASK.**

- A. Aeromedical Factors
- B. Visual Scanning and Collision Avoidance
- C. Federal Aviation Regulations and Publications
- D. Logbook Entries and Certificate Endorsements**

### III. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

**Note: The examiner must select one maneuver TASK.**

- A. Maneuver Lesson**

Instructor applicants must be tested in the following areas of operation appropriate to the aircraft category/class instructor privileges they seek (refer to the appropriate category/class section of the PTS). Notes listed under each area of operation identify the TASKs that must be tested. In some cases, the specific TASK is identified by a **bold font**, and in other cases, a minimum number of TASKs are identified.

**EXAMINER'S PRACTICAL TEST CHECKLIST FOR FLIGHT  
INSTRUCTOR BALLOON—Continued**

**SEE SECTION 2 OF THE PTS**

**AREAS OF OPERATION**

**I. PREFLIGHT PREPARATION**

**Note: The examiner must select TASKs C, F, AND I.**

- A. Certificates and Documents
- B. Airworthiness Requirements
- C. Weather Information**
- D. Flight Planning
- E. National Airspace System
- F. Operation of Systems**
- G. Aeromedical Factors
- H. Performance and Limitations
- I. Principles of Flight**

**II. PREFLIGHT PROCEDURES**

**Note: The examiner must select TASKs C and E and one other TASK.**

- A. Launch Site Selection
- B. Crew Briefing and Preparation
- C. Layout and Assembly**
- D. Preflight Inspection
- E. Inflation**
- F. Basket/Gondola Management
- G. Pre-launch Check

**III. AIRPORT OPERATIONS**

**Note: The examiner must select TASK A.**

- A. Radio Communications**

**IV. LAUNCHES AND LANDINGS**

**Note: The examiner must select two TASKs.**

- A. Normal Launch
- B. Launch Over Obstacle
- C. Approach to Landing

## EXAMINER'S PRACTICAL TEST CHECKLIST FOR FLIGHT INSTRUCTOR BALLOON—Continued

- D. Normal Landing
- E. High-Wind Landing

### V. PERFORMANCE MANEUVERS

**Note: The examiner must select two TASKs**

- A. Ascents
- B. Altitude Control (Level Flight)
- C. Descents
- D. Contour Flying
- E. Obstruction Clearance
- F. Tethering
- G. Winter Flying
- H. Mountain Flying

### VI. NAVIGATION

**Note: The examiner must select TASK A.**

- A. Navigation

### VII. EMERGENCY OPERATIONS

**Note: The examiner must select TASK D and one other TASK.**

- A. Systems and Equipment Malfunctions
- B. Emergency Equipment and Survival Gear
- C. Water Landing
- D. Thermal Flight

### VIII. POSTFLIGHT PROCEDURES

**Note: The examiner must select one TASK.**

- A. Recovery
- B. Deflation and Packing
- C. Refueling

## FLIGHT INSTRUCTOR'S PROFICIENCY CHECK CHECKLIST FOR FLIGHT INSTRUCTOR BALLOON

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

LOCATION \_\_\_\_\_

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

### I. FUNDAMENTALS OF INSTRUCTING

**Note: The instructor may select any of the below listed FOI TASKs for a proficiency check. However, these TASKs are not required on a proficiency check.**

- A. The Learning Process
- B. Human Behavior and Effective Communication
- 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

**Note: The instructor must select TASK D and at least one other TASK.**

- A. Aeromedical Factors
- B. Visual Scanning and Collision Avoidance
- C. Federal Aviation Regulations and Publications
- D. **Logbook Entries and Certificate Endorsements**

### III. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

**Note: The instructor must select one maneuver TASK.**

- A. **Maneuver Lesson**

Instructor applicants must be tested in the following areas of operation appropriate to the aircraft category/class instructor privileges they seek (refer to the appropriate category/class section of the PTS). Notes listed under each area of operation identify the TASKs that must be tested. In some cases, the specific TASK is identified by a **bold font**, and in other cases, a minimum number of TASKs are identified.

**FLIGHT INSTRUCTOR'S PROFICIENCY  
CHECK CHECKLIST FOR FLIGHT  
INSTRUCTOR BALLOON—Continued**

**SEE SECTION 2 OF THE PTS**

**AREAS OF OPERATION**

**I. PREFLIGHT PREPARATION**

**Note: The instructor must select TASKs C, F, AND I.**

- A. Certificates and Documents
- B. Airworthiness Requirements
- C. Weather Information**
- D. Flight Planning
- E. National Airspace System
- F. Operation of Systems**
- G. Aeromedical Factors
- H. Performance and Limitations
- I. Principles of Flight**

**II. PREFLIGHT PROCEDURES**

**Note: The instructor must select TASKs C and E and one other TASK.**

- A. Launch Site Selection
- B. Crew Briefing and Preparation
- C. Layout and Assembly**
- D. Preflight Inspection
- E. Inflation**
- F. Basket/Gondola Management
- G. Pre-launch Check

**III. AIRPORT OPERATIONS**

**Note: The instructor must select TASK A.**

- A. Radio Communications**

**IV. LAUNCHES AND LANDINGS**

**Note: The instructor must select two TASKs.**

- A. Normal Launch
- B. Launch Over Obstacle
- C. Approach to Landing

**FLIGHT INSTRUCTOR'S PROFICIENCY  
CHECK CHECKLIST FOR FLIGHT  
INSTRUCTOR BALLOON—Continued**

- D. Normal Landing
- E. High-Wind Landing

**V. PERFORMANCE MANEUVERS**

**Note: The instructor must select two TASKs.**

- A. Ascents
- B. Altitude Control (Level Flight)
- C. Descents
- D. Contour Flying
- E. Obstruction Clearance
- F. Tethering
- G. Winter Flying
- H. Mountain Flying

**VI. NAVIGATION**

**Note: The instructor must select TASK A.**

- A. Navigation

**VII. EMERGENCY OPERATIONS**

**Note: The instructor must select TASK D and one other TASK.**

- A. Systems and Equipment Malfunctions
- B. Emergency Equipment and Survival Gear
- C. Water Landing
- D. **Thermal Flight**

**VIII. POSTFLIGHT PROCEDURES**

**Note: The instructor must select one TASK.**

- A. Recovery
- B. Deflation and Packing
- C. Refueling

# FLIGHT INSTRUCTOR CERTIFICATE WITH SPORT PILOT PRIVILEGES

## Flight Instructor Practical Test Section Description

This section provides guidance and procedures for obtaining a Flight Instructor Certificate with a sport pilot rating and for adding privileges to an existing Flight Instructor Certificate at the sport pilot level. Information provided in the Introduction of this practical test standard also applies to this section.

The examiner or authorized instructor determines that the applicant meets the TASK Objective through the demonstration of competency in all elements of knowledge and/or skill unless otherwise noted. 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 word “examiner” is used throughout the standards to denote either the FAA inspector or an FAA designated pilot examiner who conducts an official practical test or proficiency check. When an examiner conducts a proficiency check they are acting in the capacity of an authorized instructor.

At the flight instructor level, 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. able to perform the procedures and maneuvers included in the standards at a more precise level than that indicated in the sport pilot tolerances; and
4. the ability to analyze and correct common errors related to a TASK.

## Use of the Flight Instructor Section

The FAA requires that all flight instructor practical tests and proficiency checks be conducted in accordance with this Section and the policies set forth in the INTRODUCTION of this practical test standard. The flight instructor applicant must be prepared to demonstrate the ability to instruct effectively in **ALL** TASKs included in the AREAS OF OPERATION appropriate to the category/class unless otherwise noted.

A proficiency check is an evaluation of aeronautical knowledge and flight proficiency IAW 14 CFR part 61.419. A proficiency check shall be administered using the appropriate PTS for the category of aircraft when a pilot or a flight instructor adds new category/class privileges. Upon successful completion of the proficiency check the authorized instructor will endorse the applicant's logbook indicating the added category/class of equipment that the applicant is authorized to operate. When an examiner conducts a proficiency check they are acting in the capacity of an authorized instructor.

All of the procedures and maneuvers to be tested are included in the sport pilot practical test standards. The flight instructor section contains the AREAS OF OPERATION that are generic to all flight instructor evaluations. Flight instructors must also be tested on TASKs located in the appropriate category/class section the PTS. Those TASKs are listed in the examiner's practical test checklist and the instructor's proficiency check checklist. The mandatory TASKs are identified by a note located in each area of operation. In some cases specific TASKs are identified. In other cases the examiner/instructor selects one or more TASKs in an area of operation for evaluation. This allows for the practical test for initial certification and additional privileges to be completed within a reasonable time frame.

The term "instructional knowledge" means the instructor applicant is capable of using the appropriate reference to provide the "application or correlative level of knowledge" of a subject matter topic, procedure, or maneuver. It also means that the flight instructor applicant's discussions, explanations, and descriptions should follow the recommended teaching procedures and techniques explained in FAA-H-8083-9, Aviation Instructor's Handbook.

In preparation for the practical test or proficiency check, the examiner or authorized instructor shall develop a written "plan of action." The "plan of action" for an initial certification test shall include the required TASKs and one or more TASKs in the *Fundamentals of Instruction, Technical Subject Area* and the *Preflight Lesson on a Maneuver to be Performed in Flight* AREAS OF OPERATION. Additionally, the examiner shall test the required TASK(s) listed in the examiner's practical test checklist, for the appropriate category. The "plan of action" must **always** include the

required TASKs noted in each AREA OF OPERATION. **Any TASK selected shall be evaluated in its entirety.**

If the applicant is unable to perform a TASK listed in the "plan of action" due to circumstances beyond his/her control, the examiner or authorized instructor may substitute another TASK from the applicable AREA OF OPERATION.

The "plan of action" used by an authorized instructor for a proficiency check administered for the addition of an aircraft category and/or class privilege to a Flight Instructor Certificate shall include TASKs required in the AREAS OF OPERATION as indicated in the instructor's proficiency check checklist located in this section.

With the exception of the required TASKs, the examiner or authorized instructor shall not tell the applicant in advance which TASKs will be included in the "plan of action." The applicant shall be prepared in **ALL** knowledge and skill areas included in the standards. Throughout the flight portion of the practical test or proficiency check, the examiner or authorized instructor shall evaluate the applicant's ability to simultaneously demonstrate and explain procedures and maneuvers, and to give flight instruction to students at various stages of flight training and levels of experience.

The examiner or authorized instructor is expected to use good judgment in the performance of simulated emergency procedures. The examiner or authorized instructor shall not simulate any condition that may jeopardize safe flight or result in possible damage to the aircraft. The use of the safest means for simulation is expected. Consideration must be given to local conditions, both meteorological and topographical, at the time of the test, as well as the applicant's workload, and the condition of the aircraft used. If the procedure being evaluated would jeopardize safety, it is expected that the applicant will simulate that portion of the maneuver.

## **Special Emphasis Areas**

Examiners and authorized instructors shall place special emphasis upon areas of aircraft operations considered critical to flight safety. Among these are:

1. positive aircraft control;
2. procedures for positive exchange of flight controls (who is flying the aircraft);
3. collision avoidance;
4. wake turbulence and low level windshear avoidance;
5. controlled flight into terrain (CFIT);
6. aeronautical decision making/risk management;
7. checklist usage;
8. spatial disorientation;
9. temporary flight restrictions (TFR);
10. special use airspace (SUA);
11. aviation security; and
12. other areas deemed appropriate to any phase of the practical test or proficiency check.

The examiner or authorized instructor shall place special emphasis on the applicant's demonstrated ability to teach precise aircraft control and sound judgment in aeronautical decision making/risk management. Evaluation of the applicant's ability to teach judgment shall be accomplished by asking the applicant to describe the presentation of practical problems that would be used in instructing students in the exercise of sound judgment. The examiner or authorized instructor shall also emphasize the evaluation of the applicant's demonstrated ability to teach the special emphasis areas.

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

### **Sport Pilot Flight Instructor Prerequisites—Initial**

An applicant for a flight instructor—initial certification practical test is to:

1. be at least 18 years of age;
2. be able to read, speak, write, and understand the English language. If there is a doubt, use AC 60-28, English Language Skill Standards required by 14 CFR part 61 ;
3. hold at least a current and valid Sport Pilot Certificate or higher with an aircraft category and class, privilege or rating appropriate to the flight instructor rating sought;

4. have passed the fundamentals of instructing knowledge test since the beginning of the 24<sup>th</sup> month before the month in which he/she takes the practical test or meet the requirements of 14 CFR part 61;
5. have passed the appropriate sport pilot flight instructor knowledge test(s) (appropriate to the category/class) since the beginning of the 24<sup>th</sup> month before the month in which he/she takes the practical test; and
6. have an endorsement from an authorized instructor certifying that the applicant has been given flight training in the AREAS OF OPERATION specified in sections of 14 CFR part 61, section 61.415 and a written statement from an authorized flight instructor within the preceding 60 days, in accordance with section 61.39, that instruction was given in preparation for the practical test. The endorsement shall also state that the instructor finds the applicant prepared for the required practical test, and that the applicant has demonstrated satisfactory knowledge of the subject area(s) in which the applicant was deficient on the airman knowledge test.

### **Sport Pilot Flight Instructor Prerequisites—Additional Privileges**

A certificated flight instructor seeking privileges to provide flight training in an additional category/class of light-sport aircraft is required by 14 CFR part 61 to:

1. hold a valid pilot certificate with ratings appropriate to the flight instructor category and class, privileges or rating sought;
2. receive a logbook endorsement from an authorized instructor in the AREAS OF OPERATION specified in 14 CFR part 61 for the additional category/class privilege sought;
3. successfully pass a proficiency check from an authorized instructor other than the instructor who conducted the training in the AREAS OF OPERATION specified in 14 CFR part 61 for the additional category/class privilege sought; and
4. receive a logbook endorsement certifying proficiency in the required AREAS OF OPERATION and authorized for the additional category/class privilege.

## **Sport Pilot Flight Instructor Prerequisites—Additional Privileges-Registered Ultra-light Instructor**

If you are a registered ultra-light instructor with an FAA-recognized ultra-light organization on or before September 1, 2004, and you want to apply for a flight instructor certificate with a sport pilot rating, not later than January 31, 2008 –

1. You must hold either a current and valid Sport Pilot Certificate, a current Recreational Pilot Certificate and meet the requirements of 14 CFR part 61, section 61.101(c), or at least a current and valid Private Pilot Certificate issued under this part.
2. You must meet the eligibility requirements in 14 CFR part 61, sections 61.403 and 61.23. You do not have to meet the aeronautical knowledge requirements specified in section 61.407, the flight proficiency requirements specified in section 61.409 and the aeronautical experience requirements specified in section 61.411, except you must meet the minimum total flight time requirements in the category and class of light-sport aircraft specified in section 61.411.
3. You do not have to meet the aeronautical knowledge requirement specified in 14 CFR part 61, section 61.407(a) if you have passed an FAA-recognized ultra-light organization's fundamentals of instruction knowledge test.
4. You must submit a certified copy of your ultra light pilot records from the FAA-recognized ultra-light organization. Those records must—
  - a. Document that you are a registered ultra-light flight instructor with that FAA-recognized ultra-light organization; and
  - b. Indicate that you are recognized to operate and provide training in the category and class of aircraft for which you seek privileges.
5. You must pass the knowledge test and practical test for a flight instructor certificate with a sport pilot rating applicable to the aircraft category and class for which you seek flight instructor privileges.

### **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 category/class in this practical test standard. In addition, the rated flight instructor is required to prepare the flight instructor applicant in all TASKs in the AREAS OF OPERATION listed in Section 3.

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 must 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 at a more precise level than that required at the sport pilot level; and
4. competent to pass the required practical test for the issuance of the Flight Instructor Certificate—Sport Pilot with the associated category/class privilege or the addition of a category/class privileges.

Throughout the flight instructor applicant's training, the flight instructor is responsible for emphasizing the performance of, and the ability to teach, effective visual scanning, runway incursion avoidance, and collision avoidance procedures. The flight instructor applicant should develop and use scenario based teaching methods particularly on special emphasis areas. These areas are covered in AC 90-48, Pilot's Role in Collision Avoidance; FAA-H-8083-11, Balloon Flying Handbook; FAA-H-8083-25, Pilot's Handbook of Aeronautical Knowledge; and the current Aeronautical Information Manual.

### **Examiner Responsibility**

The examiner conducting the practical test or the authorized instructor conducting the proficiency check is responsible for determining that the applicant meets acceptable standards of teaching ability, knowledge, and skill in the selected TASKs. The examiner or authorized instructor 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 at a more precise level than that indicated in the sport pilot tolerances; and
4. ability to describe, recognize, analyze and correct common errors related to the skill procedures and maneuvers covered in the TASKs.

#### **Change 1 (6/9/06)**

It is intended that oral questioning be used at any time during the ground or flight portion of the practical test or proficiency check 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 or proficiency check, the examiner or authorized instructor shall act as a student during selected maneuvers. This will give the examiner or authorized instructor an opportunity to evaluate the flight instructor applicant's ability to analyze and correct simulated common errors related to these maneuvers. The examiner or authorized instructor will place special emphasis on the applicant's use of visual scanning and collision avoidance procedures, and the applicant's ability to teach those procedures.

Examiners and authorized instructors should to the greatest extent possible test the applicant's application and correlation skills. When possible, scenario based questions should be used during the practical test or proficiency check.

If the examiner or authorized instructor determines that a TASK is incomplete, or the outcome uncertain, the examiner may require the applicant to repeat that TASK, or portions of that TASK. This provision has been made in the interest of fairness and does not mean that instruction, practice or the repeating of an unsatisfactory TASK is permitted during the certification process. When practical, the remaining TASKs of the practical test or proficiency phase should be completed before repeating the questionable TASK.

#### **Initial Flight Instructor Certification Check—Satisfactory Performance**

An applicant who seeks initial flight instructor certification will be evaluated in all AREAS OF OPERATION of the standards appropriate to the category/class rating(s) sought. The examiner shall refer to the examiner's practical test checklist, for the appropriate category, located in this section, to determine the TASKs to be tested, in each AREA OF OPERATION.

The practical test is passed if, in the judgment of the examiner, the applicant demonstrates satisfactory performance with regard to:

1. knowledge of the fundamentals of instructing;
2. knowledge of the technical subject areas;
3. knowledge of the flight instructor's responsibilities concerning the pilot certification process;
4. knowledge of the flight instructor's responsibilities concerning logbook entries and pilot certificate endorsements;

5. ability to perform the procedures and maneuvers included in the standards at a more precise level than that indicated in the sport pilot tolerances while giving effective instruction;
6. competence in teaching the procedures and maneuvers selected by the examiner;
7. competence in describing, recognizing, analyzing, and correcting common errors simulated by the examiner; and
8. knowledge of the development and effective use of a course of training, a syllabus, and a lesson plan.

### **Initial Flight Instructor Certification Check—Unsatisfactory Performance**

If, in the judgment of the examiner, the applicant does not meet the standards of performance of any TASK performed, the applicable AREA OF OPERATION is considered failed and therefore, the practical test or proficiency check is failed. The examiner or applicant may discontinue the test at any time when the failure of an AREA OF OPERATION makes the applicant ineligible for the certificate or rating sought. **The test will be continued only with the consent of the applicant.**

If the test is discontinued, the applicant is entitled credit for only those AREAS OF OPERATION and their associated TASKs satisfactorily performed. However, during the retest and at the discretion of the examiner, any TASK may be re-evaluated, including those previously considered satisfactory.

Specific reasons for disqualification is:

1. failure to perform a procedure or maneuver at a more precise level than that indicated in the Sport Pilot tolerances while giving effective flight instruction;
2. failure to provide an effective instructional explanation while demonstrating a procedure or maneuver (explanation during the demonstration must be clear, concise, technically accurate, and complete with no prompting from the examiner);
3. any action or lack of action by the applicant which requires corrective intervention by the examiner to maintain safe flight; or
4. failure to use proper and effective visual scanning techniques to clear the area before and while performing maneuvers.

**Change 1 (6/9/06)**

When a Disapproval Notice is issued, the examiner shall record the applicant's unsatisfactory performance in terms of AREA(s) OF OPERATIONS and specific TASK(s) not meeting the standard appropriate to the practical test conducted. If the applicant fails the practical test because of a special emphasis area, the Notice of Disapproval shall indicate the associated TASK. An example would be: AREA OF OPERATION VI, Traffic Patterns, failure to teach proper collision avoidance procedures.

**Proficiency Check—Satisfactory Performance when Adding an Additional Category/Class**

The authorized instructor shall refer to the instructor's proficiency check checklist, for the appropriate category, located in this section, to determine the TASKs to be tested, in each AREA OF OPERATION. The proficiency check is passed if, in the judgment of the authorized instructor, the applicant demonstrates satisfactory performance with regard to:

1. knowledge of the fundamentals of instructing;
2. knowledge of the technical subject areas;
3. knowledge of the flight instructor's responsibilities concerning the pilot certification process;
4. knowledge of the flight instructor's responsibilities concerning logbook entries and pilot certificate endorsements;
5. be able to perform the procedures and maneuvers included in the standards at a more precise level than that indicated in the sport pilot tolerances while giving effective instruction;
6. competence in teaching the procedures and maneuvers selected by the examiner;
7. competence in describing, recognizing, analyzing, and correcting common errors simulated by the examiner; and
8. knowledge of the development and effective use of a course of training, a syllabus, and a lesson plan.

When an applicant is adding a category/class privileges to their Flight Instructor Certificate, the evaluating authorized instructor shall, upon successful completion of the proficiency check, endorse the applicant's logbook indicating that the applicant is qualified to instruct in an additional sport pilot category/class of aircraft. The authorized instructor shall forward FAA Form 8710-11 to Airman Registry within 10 days.

**Proficiency Check—Unsatisfactory Performance when Adding an Additional Category/Class**

When the applicant's performance does not meet the standards in the PTS, the authorized instructor conducting the proficiency check shall annotate the unsatisfactory performance on the FAA Form 8710-11 and forward it to Airman Registry within 10 days. A Notice of Disapproval will **NOT** be issued in this instance; rather, the applicant should be provided with a list of the AREAS OF OPERATION and the specific TASKs not meeting the standard, so that the applicant may receive additional training.

Specific reasons for disqualification is:

1. failure to perform a procedure or maneuver at a more precise level than that indicated in the sport pilot tolerances while giving effective flight instruction;
2. failure to provide an effective instructional explanation while demonstrating a procedure or maneuver (explanation during the demonstration must be clear, concise, technically accurate, and complete with no prompting from the authorized instructor);
3. any action or lack of action by the applicant which requires corrective intervention by the examiner to maintain safe flight; or
4. failure to use proper and effective visual scanning techniques to clear the area before and while performing maneuvers.

When the applicant receives the additional training in the AREAS OF OPERATION and the specific TASK(s) found deficient during the proficiency check, the recommending instructor shall endorse the applicant's logbook indicating that the applicant has received additional instruction and has been found competent to pass the proficiency check. The applicant shall complete a FAA Form 8710-11, and the recommending instructor shall endorse the application. The authorized instructor, other than the one who provided the additional training, shall evaluate the applicant. When the applicant successfully accomplishes a complete proficiency check, the authorized instructor, shall forward the FAA Form 8710-11 to Airman Registry within 10 days and endorse the applicant's logbook indicating the airman's additional privileges.

**Renewal or Reinstatement of a Flight Instructor Certificate**

14 CFR part 61, sections 61.197(a)(1) and 61.199(a) allow an individual that holds a Flight Instructor Certificate to renew or reinstate that certificate by passing a practical test. The examiner shall develop a plan of action that includes at least one TASK, in each AREA OF OPERATION, in the examiner's practical test checklist, for the appropriate category, located in this section. The Renewal or Reinstatement of one rating on a Flight Instructor Certificate renews or reinstates all privileges existing on the certificate.

## **I. AREA OF OPERATION: FUNDAMENTALS OF INSTRUCTING**

**NOTE:** The examiner shall select TASK F and one other TASK.

### **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. Learning theory.
2. Characteristics of learning.
3. Principles of learning.
4. Levels of learning.
5. Learning physical skills.
6. Memory.
7. Transfer of learning.

### **B. TASK: HUMAN BEHAVIOR AND EFFECTIVE COMMUNICATION**

**REFERENCE:** FAA-H-8083-9.

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

1. Human behavior—
  - a. control of human behavior.
  - b. human needs.
  - c. defense mechanisms.
  - d. the flight instructor as a practical psychologist.
2. Effective communication—
  - a. basic elements of communication.
  - b. barriers of effective communication.
  - c. developing communication skills.

**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 methods.
3. Application, by the student, of the material or procedure presented.
4. Review and evaluation of student performance.

**D. TASK: TEACHING METHODS**

REFERENCE: FAA-H-8083-9.

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

1. Material organization.
2. The lecture method.
3. The cooperative or group learning method.
4. The guided discussion method.
5. The demonstration-performance method.
6. Computer-based training method.

**E. TASK: CRITIQUE AND EVALUATION**

REFERENCE: FAA-H-8083-9.

**Objective.** To determine that the applicant exhibits instructional knowledge of the elements of critique and evaluation by explaining:

1. Critique—
  - a. purpose and characteristics of an effective critique.
  - b. methods and ground rules for a critique.
2. Evaluation—
  - a. characteristics of effective oral questions and what types to avoid.
  - b. responses to student questions.
  - c. characteristics and development of effective written questions.
  - d. characteristics and uses of performance test, specifically, the FAA practical test standards.

## 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. Aviation instructor responsibilities in—
  - a. providing adequate instruction.
  - b. establishing standards of performance.
  - c. emphasizing the positive.
  - d. developing plans of action for use during proficiency checks.
  - e. completion of FAA Form 8710-11.
2. Flight instructor responsibilities in—
  - a. providing student pilot evaluation and supervision.
  - b. preparing practical test recommendations and endorsements.
  - c. determining requirements for conducting additional training and endorsement requirements.
  - d. conducting proficiency checks for additional category/class privileges.
3. Professionalism as an instructor by—
  - a. explaining important personal characteristics.
  - b. describing methods to minimize student frustration.

## 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. Developing objectives and standards for a course of training.
2. Theory of building blocks of learning.
3. Requirements for developing a training syllabus.
4. Purpose and characteristics of a lesson plan.

## II. AREA OF OPERATION: TECHNICAL SUBJECT AREAS

**NOTE:** The examiner shall select TASK D and at least one other TASK.

### A. TASK: AEROMEDICAL FACTORS

REFERENCES: FAA-H-8083-3; FAA-S-8081-12, FAA-S-8081-14; AIM.

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

1. How to obtain an appropriate medical certificate.
2. How to obtain a medical certificate in the event of a possible medical deficiency.
3. The causes, symptoms, effects, and corrective action of the following medical factors—
  - a. hypoxia.
  - b. hyperventilation.
  - c. middle ear and sinus problems.
  - d. spatial disorientation.
  - e. motion sickness.
  - f. carbon monoxide poisoning.
  - g. fatigue and stress.
  - h. dehydration.
  - i. hypothermia.
4. The effects of alcohol and drugs, and their relationship to flight safety.

**B. TASK: VISUAL SCANNING AND COLLISION AVOIDANCE**

REFERENCES: FAA-H-8083-25, AC 90-48; FAA-H-8083-3; AIM.

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

1. Relationship between a pilot's physical condition and vision.
2. Environmental conditions that degrade vision.
3. Vestibular and visual illusions.
4. "See and avoid" concept.
5. Proper visual scanning procedure.
6. Relationship between poor visual scanning habits and increased collision risk.
7. Proper clearing procedures.
8. Importance of knowing aircraft blind spots.
9. Relationship between aircraft speed differential and collision risk.
10. Situations that involve the greatest collision risk.

**C. TASK: FEDERAL AVIATION REGULATIONS AND PUBLICATIONS**

REFERENCES: 14 CFR parts 1, 61, 91; NTSB part 830; AC 00-2, FAA-H-8083-25; POH/AFM; AIM.

**Objective.** To determine that the applicant exhibits instructional knowledge of the elements related to Federal Aviation Regulations and publications:

1. Availability and method of revision of 14 CFR parts 1, 61, 91, and NTSB part 830 by describing—
  - a. purpose.
  - b. general content.
2. Availability of flight information publications, advisory circulars, practical test standards, pilot operating handbooks, and FAA-approved airship/balloon flight manuals by describing—
  - a. availability.
  - b. purpose.
  - c. general content.

**D. TASK: LOGBOOK ENTRIES AND CERTIFICATE ENDORSEMENTS**

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

**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.
2. Required student pilot certificate endorsements, including appropriate logbook entries.
3. Preparation of a recommendation for a pilot practical test/proficiency check, including appropriate logbook entry for—
  - a. initial pilot certification.
  - b. additional pilot certification.
  - c. additional aircraft category/class privileges.
  - d. make and model privileges.
  - e. single-seat aircraft.
4. Required endorsement of a pilot logbook for the satisfactory completion of the required FAA flight review.
5. Required flight instructor records.

### III. AREA OF OPERATION: PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

**NOTE:** Examiner shall select at least one maneuver TASK, and ask the applicant to present a preflight lesson on the selected maneuver, as the lesson would be taught to a student.

#### A. TASK: MANEUVER LESSON

REFERENCES: FAA-H-8082-3, FAA-H-8083-9, FAA-H-8083-25; FAA-S-8081-12, FAA-S-8081-14; POH/AFM.

**Objective.** To determine that the applicant exhibits instructional knowledge of the selected maneuver by:

1. Stating the purpose.
2. Giving an accurate, comprehensive oral description, including the elements and common errors.
3. Using instructional aids, as appropriate.
4. Describing the recognition, analysis, and correction of common errors.

Note: Refer to the appropriate checklist for those the additional items that must be tested in sections 1, or 2 of the PTS.