

FOREWORD

This booklet is designed to provide pilots and flight instructors with a compact reference guide to frequently used practical test standards and logbook endorsements. **Although we've done our best to retain the content and meaning of the original documents, numerous changes have been made in an effort to increase clarity and reduce length. If in doubt about anything in this guide, pilots should refer to the official versions of the Private Pilot and Instrument Rating Practical Test Standards (PTS).**

Source documents for this guide include the Private Pilot Practical Test Standards for Airplanes, FAA-S-8081-14A (effective August 1, 2002) and the Instrument Rating Practical Test Standards for Airplane, Helicopter, and Powered Lift, FAA-S-8081-4E (effective January, 2010). Sample logbook endorsements are from FAA Advisory Circular (AC) 61-65E. Revision service is not provided, so be sure to check for official FAA updates.

Practical Test Standards may be downloaded from the FAA's AFS-600 Web site. AOPA members can also find both the full PTS and an in-depth analysis of recent changes at the following address:
www.aopa.org/members/files/flttrain/idxpts.html.

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General Information on Practical Tests

NOTE: *The information in this section applies to both the Private Pilot and Instrument PTS.*

Definitions:

AREAS OF OPERATION: The major phases of the test.

TASKS: The knowledge areas, flight procedures, and maneuvers within an AREA OF OPERATION. Each task includes several elements that must be performed satisfactorily. If no aircraft class (ASEL or AMEL, for example) is listed in the TASK title, it applies to all classes.

General Information:

The practical test must follow the appropriate PTS. *The examiner may conduct the test in any order, but the ground portion must be accomplished before the flight portion.* **ALL** TASKs included in each AREA OF OPERATION must be accomplished in their entirety, unless otherwise noted.

Applicants who already hold a particular certificate and are simply seeking an additional category and/or class rating should use the Additional Rating Task Table. The examiner may also evaluate the applicant's competence in other areas.

ASF Tip: *The Additional Rating Task Table tells you which areas of the PTS to focus on if you're adding a new aircraft rating to an existing certificate. For example: If you already hold a private certificate with a glider rating and want to add an airplane single-engine land rating, go to the Task Table in the Airplane PTS, find the column labeled "glider," and read downward to find out which TASKs (if any) are required within each AREA OF OPERATION.*

If an applicant who wishes to add a category and/or class rating to an existing certificate already holds two or more category/class ratings at that certificate level (or higher), the “least restrictive” of differing requirements in the Additional Rating Task Table applies.

Flight Instructor Responsibilities

Flight instructors are responsible for training the applicant to acceptable standards in all areas required by the PTS. They should be skillful and knowledgeable, and should emphasize effective visual scanning and collision avoidance throughout training.

ASF Tip: *If you don't know the answer to a question during the oral portion of the test, don't try to fake your way through: The examiner won't be fooled. Admit that you're stumped and offer to look up the answer.*

Examiner Responsibilities

The examiner is responsible for determining that the applicant meets the standards of the PTS. Oral questioning should always be used prudently (particularly during the flight portion of the test). As much as possible, examiners should test correlative abilities rather than rote learning.

If the examiner determines that a TASK is incomplete, or its success in doubt, he/she may require the applicant to repeat it. This does not mean that instruction, practice, or the repeating of an unsatisfactory task is permitted. When practical, the remainder of the test should be completed before repeating the questionable TASK.

ASF Tip: *If you want to learn more about what to expect on a practical test, check out the Designated Pilot and Flight Engineer Examiner's Handbook (FAA Order 8710.3D). Available free on the FAA Web site, it provides detailed plain-language guidance for examiners on how to conduct practical tests.*

The examiner should exercise good judgment in simulating emergencies, using the safest means possible. If the procedure being evaluated would jeopardize safety, the applicant should simulate that portion of the maneuver. Throughout the test, the examiner will evaluate the applicant's use of visual scanning and collision avoidance procedures.

ASF Tip: Free publications on a number of safety-related topics are available online at www.asf.org.

Examiners should place special emphasis on critical safety topics. The following areas will be evaluated during the practical test, even if not specifically addressed under each TASK:

1. Positive aircraft control;
2. Positive exchange of flight controls;
3. Stall/spin awareness;
4. Collision avoidance;
5. Wake turbulence avoidance;
6. Land and hold short operations (LAHSO);
7. Runway incursion avoidance;
8. Controlled flight into terrain (CFIT);
9. Temporary flight restrictions (TFR);
10. Special use airspace (SUA);
11. Aeronautical decision making (ADM);
12. Checklist usage; and
13. Other areas deemed appropriate.

ASF Tip: Be sure to perform clearing turns prior to any maneuver during the "air work" portion of the practical test. It's a good idea to begin with a full 360-degree turn. After the first maneuver, you can switch to 90- to 180-degree turns. Once you've done several maneuvers, perform another 360-degree turn (but don't fixate on the heading indicator).

Single-Pilot Resource Management

Single-Pilot Resource Management refers to the effective use of ALL available resources: human, hardware, and information. Human resources include ATC and Flight Service personnel, among others. Single-Pilot Resource Management is a set of skills that must be evident in all TASKs.

ASF Tip: *Absent other arrangements, the applicant serves as the acting pilot in command (PIC)—the person with final authority and responsibility for the operation and safety of the flight—during a practical test. Although designated examiners may agree to act as PIC for the flight test by prior arrangement, the FAA strongly recommends that they not do so.*

Aeronautical Decision Making and Risk Management

The examiner must evaluate the applicant's aeronautical decision making and risk management skills by developing scenarios (incorporating as many TASKs as possible) to test the applicant's ability to make good choices. The ability to use all available assets to determine the safest course of action is essential for satisfactory performance. Scenarios should be realistic and within the capabilities of the aircraft.

Applicant's Use of Checklists

Applicants should use appropriate checklists. In situations where use of a checklist would be unsafe or impractical, a review of the checklist after the elements have been accomplished is appropriate.

Use of Distractions During Practical Tests

Many accidents have occurred when the pilot has been distracted during a critical phase of flight. Examiners should cause realistic in-flight distractions to evaluate the applicant's ability to control the aircraft while dividing attention inside and outside the cockpit.

ASF Tip: *Nonflying friends, relatives, employees, etc., are not allowed to ride along during practical tests. However, with the consent of the applicant, examiner, and aircraft owner/operator, individuals with a legitimate interest in the flight (instructors, chief pilots, aviation safety inspectors, etc.) may come along.*

Positive Exchange of Flight Controls

Because it's always vital to understand who has control of the aircraft, a three-step process for the exchange of flight controls is recommended.

When the instructor wishes the student to take control, he says, "You have the flight controls." The student acknowledges: "I have the flight controls." The flight instructor again says, "You have the flight controls." When control is returned to the instructor, follow the same procedure. A visual check is recommended to verify that the exchange has occurred.

Satisfactory Performance

Satisfactory performance means safely demonstrating:

1. All TASKs within standards;
2. Mastery of the aircraft with the successful outcome of each TASK never seriously in doubt;
3. Proficiency and competency within standards;
4. Sound judgment;
5. Single-pilot competence, if the aircraft is type certificated for single-pilot operations.

ASF Tip: *If you're comfortable doing it, verbalize the actions you're taking in the airplane during the test (for example: "Okay, I'm going to pull the power back to 1800 rpm to get us slowed down"). Done properly (no rambling allowed), this can help demonstrate your understanding of the task at hand, and help put the examiner at ease.*

Unsatisfactory Performance

PTS tolerances represent the performance expected under good flying conditions. If the applicant does not meet the standards of any TASK, the test is failed.

The examiner or applicant may discontinue the test any time an AREA OF OPERATION has been failed.

The test may be continued ONLY with the consent of the applicant. If the test is discontinued, the applicant is entitled to credit for AREAS OF OPERATION and their associated TASKs satisfactorily performed. However, the examiner may reevaluate any TASK during the retest. Typical grounds for disqualification are:

1. Action (or lack thereof) that requires examiner intervention to maintain safe flight.
2. Failure to visually clear the area before and during maneuvers.
3. Consistently exceeding PTS tolerances.
4. Failure to take prompt corrective action when tolerances are exceeded.

ASF Tip: *About checkrides, it's been said that "It's all right to be wrong, but it's not all right to stay wrong." Nobody's perfect. If you make a mistake during the practical test—overshoot an assigned heading, deviate from an altitude, etc.—the examiner will probably be much more interested in how you react to the error than the error itself.*

A Notice of Disapproval will include the AREA OF OPERATION and specific TASK(s) not meeting standards, as well as the AREA(s) OF OPERATION/TASK(s) not tested and the number of practical test failures. If the applicant fails because of a special emphasis area, the Notice will show the associated TASK.

ASF Tip: *Although it still collects applicants' social security numbers (SSNs) on the 8710-1 form, the FAA will no longer initiate the use of an SSN as a certificate number (airmen certificates already carrying the SSN as a certificate number will continue to be issued with that number unless the applicant requests another). If you prefer not to provide your SSN at all, notify the examiner. He or she should place the words "Do Not Use" in the SSN box of the 8710-1 form.*

Letter of Discontinuance

If a practical test is discontinued for reasons other than unsatisfactory performance (e.g., equipment failure, weather, or illness), the FAA Form 8710-1 and, if applicable, the Airman Knowledge Test Report will be returned to the applicant, and the examiner will issue a Letter of Discontinuance. The Letter should identify the AREAS OF OPERATION and TASKs successfully completed. The applicant should present these to the examiner when the test is resumed.

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Practical Test Standards: Private Pilot, Airplane Single-Engine Land

Private Pilot Prerequisites

The applicant must:

1. Be at least 17 years old;
2. Read, speak, write, and understand English;
3. Have passed the knowledge test within the 24 calendar months preceding the practical test;
4. Have received the training and aeronautical experience required by regulation;
5. Hold at least a current third class medical certificate;
6. Have an instructor's endorsement certifying that he/she has received and logged preparatory training within 60 days of the date of application, and is prepared for the test;
7. Have an endorsement certifying satisfactory knowledge of any subject areas in which he/she was deficient on the knowledge test.

ASF Tip: *When preparing for a practical test, double- and triple-check to be sure that you meet all the prerequisites (particularly the aeronautical experience requirements). Examiners do look carefully at logbooks, and—believe it or not—one of the most common mistakes applicants (and their instructors) make is in failing to verify that they have the hours legally required for the test.*

APPLICANT'S PRACTICAL TEST CHECKLIST

ACCEPTABLE AIRCRAFT

- Aircraft Documents
- Airworthiness Certificate
- Registration Certificate
- Operating Limitations
- Aircraft Maintenance Records

- Logbook Record of Airworthiness Inspections and AD Compliance
- Pilot's Operating Handbook, or
- FAA-Approved Airplane Flight Manual

ASF Tip: *If you're using a rented aircraft for the practical test, do yourself a favor and schedule it for an entire day (or more, if the test is at another airport and there's a chance that weather might ground you). Don't add "being in a hurry to get the airplane back in time" to your list of anxieties on the day of the test.*

PERSONAL EQUIPMENT

- View-Limiting Device (instrument "hood" or equivalent)
- Current Aeronautical Charts
- Computer and Plotter
- Flight Plan Form
- Flight Logs
- Current AIM, Airport/Facility Directory, and Appropriate Publications

ASF Tip: *The FAA has started using a system called IACRA to process airman certificate and rating applications. It's basically an online version of the paper 8710-1 form. Some examiners have switched to IACRA, while others continue to use the 8710-1: Prior to the checkride, be sure to find out which one your examiner uses.*

PERSONAL RECORDS

- Identification—Photo/Signature ID
- Pilot Certificate
- Current and Appropriate Medical Certificate
- Computer Test Report
- Pilot Logbook with Appropriate Instructor Endorsements
- FAA Form 8060-5, Notice of Disapproval (if applicable)
- Approved School Graduation Certificate (if applicable)
- Examiner's Fee (if applicable)

Aircraft and Equipment Required for the Practical Test

The applicant must provide an airworthy, certificated aircraft for the practical test. The aircraft must:

1. Be an airplane, single-engine land of U.S., foreign, or military registry;
2. Have dual controls, except as provided for in FAR 61.45; and
3. Be capable of performing all areas of operation appropriate to the rating sought.

ASF Tip: *If a piece of equipment is installed in the airplane, be prepared to answer questions about it—even if it's an old Loran-C receiver that hasn't been used in ten years.*

ASF Tip: *It's best to take the practical test in an airplane with which you're very familiar. If maintenance or scheduling problems result in a last-minute switch to an aircraft you haven't previously flown, consider postponing the exam. Airplanes of the same make and model often have different equipment and "quirks," which is why it's usually best to stick with one you know well.*

ADDITIONAL RATING TASK TABLE
Airplane Single-Engine Land

Addition of an Airplane Single-Engine Land Rating
to an existing Private Pilot Certificate

Required TASKs are indicated by either the TASK letter(s) that apply(s) or an indication that all or none of the TASKs must be tested based on the notes in each AREA OF OPERATION.

PRIVATE PILOT RATING(S) HELD

AREA OF OPERATION	ASES	AMEL	AMES	RH	RG	Glider	Balloon	Airship
I	F,G	F,G	F,G	F,G	F,G	F,G	F,G	F,G
II	D	NONE	D	A,C,D,E	A,D,E	A,B,C,D,E	A,B,C,D,E	A,B,C,D,E
III	C	NONE	C	B,C	NONE	B,C	B,C	B,C
IV	A,B,C,D,E,F	A,B,C,D,E,F	A,B,C,D,E,F	A,B,C,D,E,F,G,H	A,B,C,D,E,F,G,H	A,B,C,D,E,F,G,H	A,B,C,D,E,F,G,H	A,B,C,D,E,F,G,H
V	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
VI	NONE	NONE	NONE	ALL	NONE	ALL	ALL	ALL
VII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VIII	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
IX	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
X	A,B	A,B	A,B	ALL	ALL	ALL	ALL	ALL
XI	NONE	NONE	NONE	NONE	NONE	ALL	ALL	ALL
XII	A	NONE	A	A	A	A	A	A

I. AREA OF OPERATION: PREFLIGHT PREPARATION

NOTE: The examiner should develop a scenario based on real-time weather to evaluate TASKs C and D.

A. TASK: CERTIFICATES AND DOCUMENTS

1. Explain private pilot privileges, limitations, currency requirements, and logbooks.
2. Explain medical certificate classes and durations.
3. Locate and explain aircraft operating and airworthiness documents, placards, and instrument markings.

B. TASK: AIRWORTHINESS REQUIREMENTS

1. Explain required equipment for day/night VFR, procedures for determining airworthiness for aircraft with inoperative instruments or equipment, and procedures for obtaining a ferry permit.
2. Locate and explain records of required aircraft maintenance and inspections.

C. TASK: WEATHER INFORMATION

1. Analyze weather reports, charts, and forecasts from various sources.
2. Make a competent “go/no-go” decision based on available weather information.

ASF Tip: It's not enough to show up for the check-ride with a printout of a DUAT or DUATS session or notes from a phone briefing. Be sure you can intelligently discuss the weather as it pertains to the proposed flight assigned by the examiner.

D. TASK: CROSS-COUNTRY FLIGHT PLANNING

1. Present and explain a preplanned VFR cross country flight assigned by the examiner.
2. Use current aeronautical charts to identify pertinent airspace, obstructions, terrain features and checkpoints.

3. Select most favorable altitudes and compute headings, flight time, and fuel requirements.
4. Select appropriate navigation signals/facilities and communication frequencies.
5. Apply pertinent information from NOTAMs, A/FD, and other publications.
6. Complete a navigation log and simulate filing a VFR flight plan.

E. TASK: NATIONAL AIRSPACE SYSTEM

1. Explain basic VFR weather minimums.
2. List airspace classes, operating rules, pilot certification, and airplane equipment requirements.
3. Discuss special use and other airspace areas.

ASF Tip: *Be particularly aware of Temporary Flight Restrictions (TFRs). Know where to find out about them, check notams before the flight, and steer clear of any in the area. Inadvertently flying through a TFR is a sure way to fail a checkride.*

F. TASK: PERFORMANCE AND LIMITATIONS

1. Explain the use of charts, tables, and data to determine performance and the effects of exceeding limitations.
2. Compute weight and balance, determining that the weight and CG are within limits and will remain so during the flight.
3. Describe the effects of atmospheric conditions on airplane performance.

G. TASK: OPERATION OF SYSTEMS

1. Explain at least three of the major mechanical systems of the flight test airplane.

H. TASK: AEROMEDICAL FACTORS

1. List the symptoms, causes, effects, and corrective actions of at least three medical conditions sometimes encountered in flight.

2. Explain the effects of alcohol, drugs, and over-the-counter medications.
3. Explain the effects of excess nitrogen during scuba dives upon pilots or passengers in flight.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

A. TASK: PREFLIGHT INSPECTION

1. Discuss reasons for the inspection, what must be inspected, and how to detect defects.
2. Inspect the airplane using a checklist.
3. Verify the airplane is in condition for safe flight.

B. TASK: COCKPIT MANAGEMENT

1. Secure all loose items in the aircraft.
2. Organize equipment efficiently so that it is readily available.
3. Brief occupants on safety belts, shoulder harnesses, doors, and emergency procedures.

C. TASK: ENGINE STARTING

1. Understand engine starting procedures, including external power sources, hand-propping safety, and starting under various atmospheric conditions.
2. Position the airplane properly.
3. Utilize the checklist for starting procedures.

D. TASK: TAXIING

1. Perform a brake check.
2. Position flight controls properly for wind.
3. Control direction and speed without excessive use of brakes.
4. Comply with airport/taxiway markings, signals, and ATC instructions.
5. Avoid other aircraft and hazards.

E. TASK: BEFORE TAKEOFF CHECK

1. Demonstrate an understanding of reasons for checking each item and how to detect malfunctions.
2. Position the airplane properly.
3. Divide attention inside and outside the cockpit.
4. Ensure that engine temp and pressures are suitable for runup and takeoff.
5. Complete the before takeoff checklist and ensure the airplane is in safe condition.
6. Review takeoff airspeeds and distances, departure, and emergency procedures.
7. Ensure no conflict with traffic prior to taxiing into takeoff position.

**III. AREA OF OPERATION:
AIRPORT OPERATIONS****A. TASK: RADIO COMMUNICATIONS AND ATC LIGHT SIGNALS**

1. Select appropriate frequencies and use recommended phraseology.
2. Acknowledge radio communications and comply with instructions.
3. Know ATC light signals.

B. TASK: TRAFFIC PATTERNS

1. Understand traffic patterns and procedures, including airports with and without control towers, as well as runway incursion, collision, wake turbulence, and wind shear avoidance.
2. Use proper traffic pattern procedures and maintain appropriate spacing from other aircraft.
3. Maintain traffic pattern altitude, **±100 feet**, and the appropriate airspeed, **±10 knots**.
4. Apply wind drift correction to maintain proper ground track.

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

1. Demonstrate an understanding of airport, runway, and taxiway operations.
2. Properly identify and interpret airport signs, markings, and lighting.

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

A. TASK: NORMAL AND CROSSWIND TAKEOFF AND CLIMB

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

1. Understand how to perform normal and crosswind takeoffs, climbs, and rejected takeoffs.
2. Follow proper procedures for the takeoff roll.
3. Lift off at the recommended airspeed and accelerate to V_Y , then maintain it **+10/-5 knots**.
4. Retract landing gear and flaps, as appropriate, after a climb is established.
5. Maintain takeoff power and V_Y **+10/-5 knots** to a safe maneuvering altitude.
6. Maintain directional control and wind-drift correction.
7. Comply with noise abatement procedures.
8. Complete the appropriate checklist.

B. TASK: NORMAL AND CROSSWIND APPROACH AND LANDING

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

1. Select a suitable touchdown point, considering ground/flight conditions.
2. Establish approach/landing configuration and airspeed, adjusting pitch and power as required.

3. Maintain a stabilized approach and recommended airspeed, or in its absence not more than 1.3 VSO, **+10/-5 knots**, with wind gust factor applied.
4. Make smooth, timely, and correct control inputs for roundout and touch down smoothly at the approximate stalling speed.
5. Touch down at or within **400 feet** beyond a specified point, with no drift, and the airplane aligned with and over the runway center.
6. Maintain crosswind correction and directional control throughout the approach and landing.
8. Complete the appropriate checklist.

C. TASK: SOFT-FIELD TAKEOFF AND CLIMB

1. Position the flight controls to maximize lift as quickly as possible.
2. Clear the area, and taxi onto the takeoff surface without stopping while advancing the throttle to takeoff power.
3. Establish a pitch attitude that will transfer weight to the wings as rapidly as possible.
4. Lift off and remain in ground effect while accelerating to V_X or V_Y , as appropriate.
5. Pitch for V_X or V_Y and maintain it **+10/-5 knots** during the climb.
6. Retract landing gear and flaps as appropriate.
7. Maintain takeoff power and V_X or V_Y **+10/-5 knots** to a safe maneuvering altitude.
8. Maintain directional control and wind-drift correction throughout the takeoff and climb.
9. Complete the appropriate checklist.

D. TASK: SOFT-FIELD APPROACH AND LANDING

1. Select the most suitable touchdown area, considering ground/flight conditions.
2. Establish approach/landing configuration and airspeed; adjust pitch and power as required.
3. Maintain a stabilized approach and recommended airspeed, or in its absence not more than 1.3 VSO, **+10/-5 knots**, with wind gust factor applied.

4. Make smooth, timely, and correct control applications during roundout and touchdown.
5. Touch down softly with no drift, and with the airplane aligned with the runway/landing path.
6. Maintain crosswind correction and directional control throughout the approach and landing.
7. Maintain proper position of the flight controls and sufficient speed to taxi on the soft surface.
8. Complete the appropriate checklist.

E. TASK: SHORT-FIELD TAKEOFF AND MAXIMUM PERFORMANCE CLIMB

1. Position the flight controls and set flaps appropriately.
2. Clear the area, utilize all available takeoff area, and line up on the runway centerline.
3. Apply brakes (if appropriate) while advancing throttle smoothly to takeoff power.
4. Lift off at recommended airspeed, and accelerate to the obstacle clearance airspeed or V_X .
5. Maintain obstacle clearance airspeed, or V_X , **+10/-5 knots**, until the obstacle is cleared, or until the airplane is 50 feet agl.
6. Accelerate to V_Y after clearing the obstacle and maintain it **+10/-5 knots**, during the climb.
7. Retract landing gear and flaps as appropriate.
8. Maintain takeoff power and V_Y **+10/-5** to a safe maneuvering altitude.
9. Maintain directional control and proper wind-drift correction throughout the takeoff and climb.
10. Complete the appropriate checklist.

F. TASK: SHORT-FIELD APPROACH AND LANDING

1. Select the most suitable touchdown point, considering ground/flight conditions.
2. Establish approach/landing configuration and airspeed; adjust pitch and power as required.
3. Maintain a stabilized approach and recommended approach airspeed, or in its absence not more than $1.3 V_{SO}$, **+10/-5 knots**, with wind gust factor applied.

4. Make smooth, timely, and correct control applications during roundout and touchdown.
5. Touch down smoothly at minimum control airspeed.
6. Touch down at or within **200 feet** beyond a specified point, with no side drift, minimum float, and with the airplane aligned with and over the runway centerline.
7. Maintain crosswind correction and directional control throughout the approach and landing.
8. Apply brakes to stop in the shortest distance consistent with safety.
9. Complete the appropriate checklist.

G. TASK: FORWARD SLIP TO A LANDING

1. Select the most suitable touchdown point, considering ground/flight conditions.
2. Establish the slip at the appropriate point; adjust pitch and power as required.
3. Maintain runway centerline and an airspeed resulting in minimum float.
4. Make smooth, timely, and correct control applications during slip recovery, roundout, and touchdown.
5. Touch down smoothly at the approximate stalling speed, at or within **400 feet** beyond a specified point, with no side drift, and with the airplane aligned with and over the runway centerline.
6. Maintain crosswind correction and directional control throughout the approach and landing.
7. Complete the appropriate checklist.

H. TASK: GO-AROUND/REJECTED LANDING

1. Make a timely decision to discontinue the approach.
2. Apply takeoff power immediately, pitch for V_Y , and maintain V_Y **+10/-5 knots**.
3. Retract the flaps and landing gear, as appropriate.
4. Maneuver to the side of the runway to avoid conflicting traffic.
5. Maintain takeoff power and V_Y **+10/-5** to a safe maneuvering altitude.
6. Maintain directional control and proper wind-drift correction throughout.
7. Complete the appropriate checklist.

V. AREA OF OPERATION: PERFORMANCE MANEUVER

TASK: STEEP TURNS

1. Establish the recommended airspeed or, if one is not stated, a safe airspeed not to exceed V_A .
2. Roll into a coordinated 360° turn; maintain a **45° bank**.
3. Perform the task in the opposite direction, as specified by the examiner.
4. Divide attention between airplane control and orientation.
5. Maintain the entry altitude, **±100 feet**, airspeed, **±10 knots**, bank, **±5°**; and roll out on the entry heading, **±10°**.

VI. AREA OF OPERATION: GROUND REFERENCE MANEUVERS

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

A. TASK: RECTANGULAR COURSE

1. Select a suitable reference area.
2. Enter a left or right pattern, **600 to 1,000 feet agl** at an appropriate distance from the selected area, **45° to the downwind leg**.
3. Apply wind-drift correction to maintain a constant ground track.
4. Divide attention between airplane control and ground track while maintaining coordinated flight.
5. Maintain altitude, **±100 feet**; maintain airspeed, **±10 knots**.

B. TASK: S-TURNS

1. Select a suitable ground reference line.
2. Plan to enter at **600 to 1,000 feet agl**, perpendicular to the selected reference line.
3. Apply wind-drift correction to track a constant radius turn on each side of the reference line.
4. Reverse the turn directly over the reference line.

5. Divide attention between airplane control and the ground track while maintaining coordinated flight.
6. Maintain altitude, **±100 feet**; maintain airspeed, **±10 knots**.

C. TASK: TURNS AROUND A POINT

1. Select a suitable ground reference point.
2. Plan to enter left or right at **600 to 1,000 feet agl**, at an appropriate distance from the reference point.
3. Apply wind-drift correction to track a constant radius turn around the reference point.
4. Divide attention between airplane control and ground track while maintaining coordinated flight.
5. Maintain altitude, **±100 feet**; maintain airspeed, **±10 knots**.

VII. AREA OF OPERATION: NAVIGATION

A. TASK: PILOTAGE AND DEAD RECKONING

1. Follow the preplanned course by reference to landmarks, relating surface features to chart symbols.
2. Navigate by means of precomputed headings, groundspeeds, and elapsed time.
3. Correct for and record differences between pre-flight calculations and those determined en route.
4. Verify the airplane's position within **three nautical miles** of the flight-planned route.
5. Arrive at en route checkpoints within **five minutes** of the initial or revised ETA and provide a destination estimate.
6. Maintain the appropriate altitude, **±200 feet** and headings, **±15°**.

B. TASK: NAVIGATION SYSTEMS AND RADAR SERVICES

1. Demonstrate the ability to use an electronic navigation system.
2. Locate the airplane's position using the navigation system.

3. Intercept and track a course, radial, or bearing.
4. Recognize and describe the indication of station/waypoint passage, if appropriate.
5. Recognize signal loss and take appropriate action.
6. Use proper communication procedures when using radar services.
7. Maintain the appropriate altitude, **±200 feet** and headings **±15°**.

C. TASK: DIVERSION

1. Select an appropriate alternate airport and route.
2. Make an accurate estimate of heading, ground-speed, time, and fuel consumption to the alternate airport.
3. Maintain the appropriate altitude, **±200 feet** and heading, **±15°**.

D. TASK: LOST PROCEDURES

1. Select an appropriate course of action.
2. Maintain an appropriate heading and climb, if necessary.
3. Identify prominent landmarks.
4. Use navigation systems/facilities and/or contact an ATC facility for assistance.

VIII. AREA OF OPERATION: SLOW FLIGHT AND STALLS

A. TASK: MANEUVERING DURING SLOW FLIGHT

1. Select an entry altitude allowing the task to be completed **no lower than 1,500 feet agl**.
2. Maintain an airspeed at which any increase in angle of attack, load factor, or reduction in power would result in an immediate stall.
3. Accomplish coordinated straight-and-level flight, turns, climbs, and descents with landing gear and flap configurations specified by the examiner.
4. Divide attention between airplane control and orientation.

5. Maintain altitude, **±100 feet**; heading, **±10°**; air-speed, **+10/-0 knots**; and bank angle, **±10°**.

B. TASK: POWER-OFF STALLS

1. Select an altitude allowing the task to be completed **no lower than 1,500 feet agl.**
2. Establish a descent in the approach or landing configuration, as specified by the examiner.
3. Transition smoothly to a pitch attitude that will induce a stall.
4. Maintain a heading, **±10°**, in straight flight; maintain an angle of bank **not to exceed 20°, ±10°**, in turning flight, while inducing the stall.
5. Recognize the stall and recover promptly after the stall by simultaneously reducing angle of attack, increasing power to maximum allowable, and leveling wings with a minimum loss of altitude.
6. Retract the flaps to the recommended setting; if applicable, retract the landing gear after a positive rate of climb is established.
7. Accelerate to VX or VY speed before the final flap retraction; return to the altitude, heading, and air-speed specified by the examiner.

C. TASK: POWER-ON STALLS

NOTE: *In some high performance airplanes, the power setting may have to be reduced below the PTS guideline to prevent excessively high pitch attitudes (greater than 30° nose up).*

1. Select an entry altitude that allows the task to be completed **no lower than 1,500 feet agl.**
2. Establish takeoff or departure configuration. Set power to **no less than 65 percent.**
3. Transition from takeoff or departure attitude to a pitch attitude that will induce a stall.
4. Maintain heading, **±10°**, in straight flight; maintain an angle of bank **not to exceed 20°, ±10°**, in turning flight, while inducing the stall.

5. Recognize the stall and recover promptly by simultaneously reducing angle of attack, increasing power and leveling the wings, with minimum loss of altitude.
6. Retract the flaps to the recommended setting; if applicable, retract the landing gear after a positive rate of climb is established.
7. Accelerate to V_X or V_Y before final flap retraction; return to the altitude, heading, and airspeed specified by the examiner.

D. TASK: SPIN AWARENESS

1. Understand aerodynamic factors related to spins.
2. Be able to discuss flight situations where unintentional spins may occur.
3. Know procedures for recovery from unintentional spins.

IX. AREA OF OPERATION: BASIC INSTRUMENT MANEUVERS

NOTE: *The examiner shall select TASK E and at least two other TASKs.*

A. TASK: STRAIGHT-AND-LEVEL FLIGHT

1. Maintain coordinated straight-and-level flight solely by reference to instruments using proper instrument cross-check and interpretation.
2. Maintain altitude, **± 200 feet**; heading, **$\pm 20^\circ$** ; and airspeed, **± 10 knots**.

B. TASK: CONSTANT AIRSPEED CLIMBS

1. Establish the climb configuration specified by the examiner.
2. Transition to climb pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation.

3. Demonstrate climbs solely by reference to instruments at a constant airspeed to specific altitudes in straight flight and turns.
4. Level off at the assigned altitude and maintain it, **±200 feet**; maintain heading, **±20°**; maintain airspeed, **±10 knots**.

C. TASK: CONSTANT AIRSPEED DESCENTS

1. Establish the descent configuration specified by the examiner.
2. Transition to descent pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation.
3. Demonstrate descents solely by reference to instruments at a constant airspeed to specific altitudes in straight flight and turns.
4. Level off at the assigned altitude and maintain it, **±200 feet**; maintain heading, **±20°**; maintain airspeed, **±10 knots**.

D. TASK: TURNS TO HEADINGS

1. Transition into a coordinated, level turn using proper instrument cross-check and interpretation.
2. Demonstrate turns to headings solely by reference to instruments; maintain altitude, **±200 feet**; maintain a standard rate turn and roll out on the assigned heading, **± 10°**; maintain airspeed, **±10 knots**.

E. TASK: RECOVERY FROM UNUSUAL FLIGHT ATTITUDES

1. Recognize unusual attitudes solely by reference to instruments; recover promptly to stable, level flight using proper cross-check and interpretation and coordinated control application in the correct sequence.

F. TASK: RADIO COMMUNICATIONS, NAVIGATION SYSTEMS/FACILITIES, AND RADAR SERVICES

1. Understand radio communications, navigation systems/facilities, and radar services available for use during instrument flight.

2. Select the proper frequency and identify the facility.
3. Follow verbal instructions and/or navigation systems for guidance.
4. Determine the minimum safe altitude.
5. Maintain altitude, **±200 feet**; maintain heading, **±20°**; maintain airspeed, **±10 knots**.

X. AREA OF OPERATION: EMERGENCY OPERATIONS

A. TASK: EMERGENCY APPROACH AND LANDING (SIMULATED)

1. Analyze the situation and select an appropriate course of action.
2. Establish and maintain best-glide airspeed, **±10 knots**.
3. Select a suitable landing area.
4. Considering the flight and ground environment, plan and follow a flight pattern to the landing area.
5. Prepare for landing, or go-around, as specified by the examiner.
6. Follow the appropriate checklist.

B. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS

1. Understand system and equipment malfunctions appropriate to the airplane.
2. Take appropriate action in at least three simulated emergencies appropriate to the airplane.
3. Follow the appropriate checklist or procedure.

C. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR

1. Understand emergency and survival equipment appropriate to aircraft and flight environment.
2. Identify equipment that should be aboard the airplane.

XI. AREA OF OPERATION: NIGHT OPERATION

TASK: NIGHT PREPARATION

1. Understand human night vision.
2. Understand airport lighting systems.
3. Understand airplane lighting systems.
4. List personal equipment essential for night flight.
5. Understand night orientation, navigation, and chart reading techniques.
6. Demonstrate knowledge of safety precautions and emergencies unique to night flying.

XII. AREA OF OPERATION: POSTFLIGHT PROCEDURES

A. TASK: AFTER LANDING, PARKING, AND SECURING

1. Maintain directional control while decelerating after touchdown.
2. Observe runway hold lines and other markings and lighting.
3. Park in an appropriate area and follow the appropriate shutdown procedure.
4. Complete the appropriate checklist.
5. Conduct a postflight inspection and secure the aircraft.

Practical Test Standards: Instrument Rating

INTRODUCTION

NOTE: *The information contained in the section “General Information on Practical Tests” (see p. 5) applies to both the Private and Instrument PTS.*

Aircraft and Equipment Required

The applicant must provide an airworthy, certificated aircraft whose operating limitations do not prohibit the TASKs required by the PTS. The aircraft must have flight instruments necessary for control without outside visual references, as well as the equipment necessary for ATC communications, and for the performance of at least two of the following nonprecision approaches: VOR, NDB, GPS (without vertical guidance), LOC, LDA, SDF, or RNAV, and one precision approach: ILS, LPV, GLS, or MLS. GPS equipment must be instrument certified and contain a current database. Note: An LPV approach may be used as a nonprecision approach if the DA is more than 300 feet. If the DA is 300 feet or less, it may be used as a precision approach.

For PTS purposes, any flight instrument that uses LCD or picture tube displays will be called an “Electronic Flight Instrument Display.” The simulated loss of a primary electronic flight instrument display must be tailored to failures that would normally be encountered in the aircraft. If possible, total failure of the electronic flight instrument display, with access only to the standby instruments or backup display, should be evaluated.

ASF Tip: *An aircraft with a throw-over control yoke (an older Beech Bonanza, for example) is not acceptable for use during an instrument rating practical test.*

The applicant is expected to use an autopilot and/or flight management system (FMS), if installed, to assist in aircraft management. The examiner should test the applicant's knowledge of systems installed and operative during the oral and flight portions of the test. The applicant must demonstrate the use of the autopilot and/or FMS during one of the nonprecision approaches.

If the aircraft has an operable and properly installed GPS, the applicant must demonstrate GPS approach proficiency.

Question: *I hold a private pilot certificate with ASEL and AMEL ratings. If I take my instrument test in a single-engine airplane, will I be able to legally operate under IFR in a twin?*

Answer: *No. Your certificate will bear the limitation "Multiengine limited to VFR only." If you take the checkride in a multiengine airplane, however, you'll automatically gain instrument privileges for single-engine aircraft.*

The applicant must provide a view limiting device that prevents him/her from seeing outside the aircraft, while not inhibiting the examiner's vision. The applicant and examiner should agree on, and brief, a procedure for donning and removing the device.

Use of FAA-Approved Flight Simulator or Flight Training Device

FAA-qualified and approved flight simulators or flight training devices (FTDs) may be used to complete certain TASKs, although at least one instrument approach must be demonstrated in an aircraft. One precision and one nonprecision approach not selected for actual flight demonstration may be performed in flight simulators or FTDs.

In the aircraft, certain elements may be accomplished through “simulated” actions in the interest of safety and practicality. When accomplished in a flight simulator or FTD, these same actions should not be “simulated.” Similarly, safety precautions taken in the aircraft for the accomplishment of a specific maneuver or procedure need not be taken when a flight simulator or FTD is used.

Whether accomplished in an aircraft, flight simulator, or FTD, all TASKs carry the same performance standards.

ASF Tip: A “segmented” practical test is normally one in which both an aircraft and a flight simulator or FTD are used. In such a case, the applicant should be given the oral portion of the test first, followed by the FS/FTD portion and, finally, the flight portion. In the event of weather delays or mechanical problems, however, it is permissible to deviate from this order.

Examiner Responsibilities

Except for takeoff and landing, all TASKs shall be conducted solely by reference to instruments.

The examiner may not assist in the management of the aircraft, radio communications, navigational equipment, and navigational charts. If the test is conducted in an aircraft operation requiring two pilots, the examiner may assume the duties of the second in command. When conducting practical tests in a helicopter (without autopilot, SAS, or copilot), examiners may act as an autopilot (e.g., hold heading and altitude), when requested, to allow applicants to tune radios, select charts, etc. Examiners may perform the same functions as an autopilot but should not act as a copilot performing more extensive duties. The examiner shall remain alert for other traffic at all times and use proper ATC terminology when simulating ATC clearances.

ASF Tip: When given an instruction to turn, climb, or descend while wearing a view-limiting device, remind the examiner to clear the area by asking “Clear right?” (or “left,” “above,” or “below,” as appropriate) and waiting for a response before changing course.

Single-Pilot Resource Management

Throughout the practical test, the examiner will evaluate the applicant’s ability to use aeronautical decision-making procedures to evaluate risks. The examiner will do this by developing a scenario incorporating as many TASKS as possible. For example, the examiner may develop a scenario incorporating weather decisions and performance planning.

Single-Pilot Resource Management (SRM) is the art of managing all the resources available to ensure that a successful outcome is never in doubt. SRM resources can include hardware, information, and human resources—for example, dispatchers, weather briefers, maintenance personnel, and air traffic controllers. SRM is a set of competencies that must be evident in all TASKS in this PTS as applied to single-pilot operation.

The following six items are areas of SRM:

1. Aeronautical Decision Making

Objective: To determine that the applicant exhibits sound aeronautical decision making during the planning and execution of the flight. The applicant should:

1. Use a decision-making process, such as the DECIDE model or 3P model, when making critical decisions. The applicant should be able to explain the factors and alternative courses of action that were considered.

2. Recognize and explain hazardous attitudes that may have influenced decisions.
3. Choose (and execute) an appropriate course of action for any situation that may require changes to the original flight plan. This should lead to a safe conclusion of the flight.
4. Explain how risk management, CFIT awareness, overall situational awareness, use of automation, and task management influenced the decisions made and the resulting course of action.

2. Risk Management

Objective: *To determine that the applicant can use risk management tools and models to assess potential risks. The applicant should:*

1. Explain the four fundamental risk elements associated with the scenario flight, and how each one was assessed.
2. Use a tool, such as the PAVE checklist, to help assess the four risk elements.
3. Use a personal checklist, such as the I'MSAFE checklist, to determine personal risks.
4. Use weather reports and forecasts to determine associated risks.
5. Explain how to recognize risks and how mitigate them throughout the flight.
6. Use the 5P model to assess the risks associated with each of the five factors.

3. Task Management

Objective: *To determine that the applicant can prioritize the various tasks associated with the planning and execution of the flight. The applicant should:*

1. Explain how to prioritize tasks so as to minimize distractions from flying the aircraft.
2. Considering the phase of flight, complete all tasks in a timely manner without becoming distracted from flying.

3. Execute checklists and procedures in a manner that does not increase workload at critical times (while intercepting the final approach course, for example).

4. Situational Awareness

Objective: *To determine that the applicant can maintain situational awareness during all phases of the flight. The applicant should:*

1. Explain the concept of situational awareness.
2. Explain the dangers of becoming fixated on a particular problem to the exclusion of other concerns.
3. At any time, be able to summarize the situation in a way that demonstrates an accurate assessment of the flight's current and future status, including weather, terrain, traffic, ATC, fuel, and aircraft status.
4. Use navigation, traffic, terrain and weather displays, along with other features of the aircraft, to maintain awareness of the situation and any reasonably anticipated changes.

5. Controlled Flight Into Terrain Awareness

Objective: *To determine the applicant can accurately assess risks associated with terrain and obstacles, maintain awareness of such obstructions, and use appropriate techniques to avoid hitting them. The applicant should:*

1. Use current charts to ensure that the intended flight path avoids terrain and obstacles.
2. Be aware of potential terrain and obstacle hazards along the intended route.
3. If applicable, explain the terrain display, TAWS, and/or GPWS installed in the aircraft.
4. If applicable, use the terrain display, TAWS, and/or GPWS to maintain awareness and avoid terrain and obstacles.

5. Plan departures and arrivals to avoid terrain and obstacles.
6. Alter flight as necessary to avoid terrain.
7. Plan any course diversion in such a way as to insure proper terrain and obstruction clearance.
8. Explain and understand aircraft performance limitations associated with CFIT accidents.

6. Automation Management

Objective: *To determine that the applicant can use the automation features of the aircraft, including autopilot and flight management systems, to manage workload while staying aware of the current and anticipated modes and status of the automation. The applicant should:*

1. Explain how to recognize the current mode of operation of the autopilot/FMS.
2. Explain how to recognize anticipated and unanticipated mode or status changes of the autopilot/FMS.
3. Be able to state at any time during the flight the current mode or status and what the next anticipated mode or status will be.
4. Use the autopilot/FMS to reduce workload as appropriate for the phase of flight, during emergency or abnormal operations.
5. Recognize unanticipated mode changes in a timely manner and promptly return the automation to the correct mode.

Crew Resource Management

Crew Resource Management (CRM) is the application of team management concepts in the flight deck environment. If the test is conducted in an aircraft operation requiring a crew of two, the examiner shall evaluate the applicant's ability to use good CRM throughout the test.

Emphasis on Attitude Instrument Flying and Emergency Instrument Procedures

The FAA is concerned about numerous accidents involving spatial disorientation of instrument-rated pilots in partial-panel situations.

The PTS requires basic instrument flight maneuvers while referring to both full-panel and backup flight instruments. Examiners should determine competency in either the PRIMARY and SUPPORTING or the CONTROL and PERFORMANCE CONCEPT method of instrument flying.

In some aircraft, the location of the magnetic compass may give the applicant an unfair advantage while using the backup flight instruments. In these cases, the examiner may devise other options to limit the applicant's view. By no means shall the examiner limit his or her view as the safety pilot.

Practical Test Prerequisites: Instrument Rating

The applicant must:

1. Hold at least a current private pilot certificate with an aircraft rating appropriate to the instrument rating sought;
2. Have passed the instrument knowledge test within the previous 24 calendar months;
3. Have obtained the training and aeronautical experience required by regulation;
4. Read, speak, write, and understand English;
5. Have a written statement from an instructor certifying that the applicant received preparatory flight training within the 60 days preceding the application date. The instructor must also state that he/she finds the applicant competent to pass the practical test, and that the applicant has satisfactory knowledge of any subject area(s) in which the Airman Knowledge Test Report noted a deficiency.

APPLICANT'S PRACTICAL TEST CHECKLIST

ACCEPTABLE AIRCRAFT

- View-limiting device
- Aircraft Documents: Airworthiness Certificate, Registration Certificate
- Rating Limitations
- Aircraft Maintenance Records: Airworthiness Inspections

PERSONAL EQUIPMENT

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

ASF Tip: The FAA has started using a system called IACRA to process airman certificate and rating applications. It's basically an online version of the paper 8710-1 form. Some examiners have switched to IACRA, while others continue to use the 8710-1: Prior to the checkride, be sure to find out which one your examiner uses.

PERSONAL RECORDS

- Identification—Photo/Signature ID
- Pilot Certificate
- Medical Certificate
- Completed FAA Form 8710-1, or IACRA equivalent
- Airman Knowledge Test Report, or IACRA equivalent
- Logbook with Instructor's Endorsement
- Notice of Disapproval or IACRA equivalent (if applicable)
- Approved School Graduation Certificate (if applicable)
- Examiner's Fee (if applicable)
- Letter of Discontinuance or IACRA equivalent (if applicable)

RATING TASK TABLE

ADDITIONAL INSTRUMENT RATING DESIRED				
Required TASKs are indicated by either the TASK letter(s) that apply(s) or an indication that all or none of the TASKs must be tested.				
AREA OF OPERATION	INSTRUMENT AIRPLANE	INSTRUMENT HELICOPTER	INSTRUMENT POWERED LIFT	INSTRUMENT PROFICIENCY CHECK
I	NONE	NONE	NONE	NONE
II	A,C	A,C	A,C	NONE
III	NONE	NONE	NONE	C
IV	ALL	ALL	ALL	B
V	NONE	NONE	NONE	ALL
VI	ALL	ALL	ALL	ALL
VII	ALL	ALL	ALL	B,C,D
VIII	ALL	ALL	ALL	ALL

I. AREA OF OPERATION: PREFLIGHT PREPARATION

A. TASK: PILOT QUALIFICATIONS

1. Demonstrate knowledge of requirements to act as pilot in command under IFR by describing requirements for maintaining instrument currency, regaining currency after it has been lost, and pilot recordkeeping.

B. TASK: WEATHER INFORMATION

NOTE: *Where current weather reports, forecasts, or other information is not available, it should be simulated by the examiner in a manner that will adequately measure the applicant's competence.*

1. Exhibit adequate knowledge of aviation weather by obtaining, reading, and analyzing applicable weather reports.
2. Correctly analyze the weather for the route of flight and destination, determine whether an alternate is required and, if so, whether the selected alternate meets regulatory requirements.

C. TASK: CROSS-COUNTRY FLIGHT PLANNING

1. Present and explain a preplanned cross-country flight, as previously assigned by the examiner (preplanning is at examiner's discretion). It should be planned using real-time weather and conform to the applicable regulatory requirements for IFR.
2. Calculate the estimated time en route and total fuel required using real-world factors.
3. Select and interpret current and applicable en route charts, instrument departure procedures (DPs), RNAV, STAR, and Instrument Approach Procedure (IAP) charts.
4. Obtain and interpret applicable NOTAM information.
5. Determine that calculated performance is within the aircraft's capability and operating limitations.

6. Complete a flight plan in a manner that accurately reflects the conditions of the proposed flight (does not have to be filed with ATC).
7. Demonstrate adequate knowledge of GPS and RAIM capability, if aircraft is so equipped.
8. Demonstrates knowledge of icing and how to recognize it, effects of icing on aircraft performance, and both general and aircraft-specific procedures (if applicable) for handling icing situations.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

A. TASK: AIRCRAFT SYSTEMS RELATED TO IFR OPERATIONS

1. Demonstrate knowledge of applicable aircraft anti-icing/deicing system(s) and their operating methods, including: airframe, propeller, intake, fuel, and pitot-static.

B. TASK: AIRCRAFT FLIGHT INSTRUMENTS AND NAVIGATION EQUIPMENT

1. Demonstrate knowledge of applicable aircraft flight instrument systems and their operating characteristics, including: pitot-static, altimeter, air-speed indicator, VSI, attitude indicator, HSI, magnetic compass, turn coordinator, heading indicator, electrical, vacuum, and electronic flight instrument display.
2. Exhibit knowledge of applicable aircraft navigation systems and their operating characteristics, including: VOR, DME, ILS, marker beacons, transponder/encoder, ADF, GPS, FMS, and autopilot.

C. TASK: INSTRUMENT COCKPIT CHECK

1. Explain the reasons for the preflight cockpit check of instruments, avionics, and navigation equipment and discuss how to detect defects.

2. Following the appropriate checklist, perform a cockpit check of instruments, avionics, and navigation equipment and determine that they are in condition for safe instrument flight.
3. Note any discrepancies and determine whether the aircraft is safe for instrument flight or requires maintenance.

III. AREA OF OPERATION: AIR TRAFFIC CONTROL CLEARANCES AND PROCEDURES

NOTE: *The ATC clearance may be actual or simulated based upon the flight plan.*

A TASK: AIR TRAFFIC CONTROL CLEARANCES

1. Understand ATC clearances and pilot/controller responsibilities, including tower en route control and clearance void times.
2. Copy the ATC clearance correctly, in a timely manner.
3. Determine whether it is possible to comply with the clearance.
4. Correctly interpret the clearance and, if necessary, request clarification, verification, or change.
5. Correctly read back the ATC clearance in the sequence received.
6. Use standard phraseology when communicating with ATC.
7. Set transponder codes, communication, and navigation systems in compliance with the ATC clearance.
8. Demonstrate single-pilot resource management skills.

B. TASK: COMPLIANCE WITH DEPARTURE, EN ROUTE, AND ARRIVAL PROCEDURES AND CLEARANCES

1. Understand ATS routes and related pilot/controller responsibilities.
2. Use current and appropriate navigation publications for the flight.

3. Select and use appropriate communication facilities; select and identify navaids to be used.
4. Perform aircraft checklist items for each phase of flight.
5. Establish two-way communications with the proper controlling agency.
6. Comply with all ATC instructions and airspace restrictions in a timely manner.
7. Exhibit knowledge of communication failure procedures.
8. Intercept all courses, radials, and bearings appropriate to the procedure, route, or clearance.
9. Maintain the applicable airspeed within **+/-10 knots**; headings within **+/-10°**; altitude within **+/-100 feet**; and track a course, radial, or bearing within **3/4 scale deflection of the CDI**.
10. Demonstrate single-pilot resource management skills.

C. TASK: HOLDING PROCEDURES

NOTE: *Disregard any reference to DME if the aircraft is not so equipped.*

1. Understand holding procedures.
2. Change to the appropriate holding airspeed **within three minutes** of, but prior to reaching, the holding fix.
3. Select an entry procedure that ensures the aircraft will remain within the holding pattern airspace.
4. Recognize arrival at the holding fix and promptly enter the holding pattern.
5. Comply with ATC reporting requirements.
6. Use the proper timing criteria as required by altitude or ATC instructions.
7. Comply with pattern leg lengths when a DME distance is specified.
8. Use proper wind correction procedures to maintain the desired pattern and arrive over the fix as close as possible to a specified time.

9. Maintain airspeed within **+/-10 knots**; altitude within **+/-100 feet**; headings within **+/-10°**; and track a selected course, radial, or bearing within **3/4 scale deflection of the CDI**.
10. Use MFD or other graphical displays, if installed, to monitor aircraft position relative to the desired flightpath while holding.
11. Demonstrate single-pilot resource management skills.

IV. AREA OF OPERATION: FLIGHT BY REFERENCE TO INSTRUMENTS

A. TASK: BASIC INSTRUMENT FLIGHT MANEUVERS (IA, IH, PL, AA, HA, PLA, PC)

1. Demonstrate understanding of attitude instrument flying during straight-and-level, climbs, turns, and descents while conducting various instrument flight procedures.
2. Maintain altitude within **+/- 100 feet** during level flight, headings within **+/- 10°**, airspeed within **+/- 10 knots**, and bank angles within **+/- 5°** during turns.
3. Use proper instrument cross-check and interpretation, and apply control corrections as necessary.

B. TASK: RECOVERY FROM UNUSUAL FLIGHT ATTITUDES

NOTE: *Any intervention by the examiner to prevent the aircraft from exceeding any operating limitations, or entering an unsafe flight condition, is disqualifying.*

1. Demonstrate understanding of unusual flight attitude recoveries (both nose-high and nose-low).
2. Using proper instrument cross-check and interpretation, apply pitch, bank, and power corrections in the correct sequence to return the aircraft to stabilized, level flight.

V. AREA OF OPERATION: NAVIGATION SYSTEMS

A. TASK: INTERCEPTING AND TRACKING NAVIGATIONAL SYSTEMS AND DME ARCS

NOTE: Any reference to DME arcs, ADF, or GPS shall be disregarded if the aircraft is not equipped with these systems.

1. Understand how to intercept and track navigational systems and DME arcs.
2. Tune and identify the navigation facility.
3. Set and orient the course to be intercepted into the course selector, or identify the course on the RMI.
4. Intercept the course at a predetermined angle, inbound or outbound from a navigational facility.
5. Maintain airspeed within **+/-10 knots**, altitude within **+/-100 feet**, and selected headings within **+/-5°**.
6. Apply proper correction to maintain a course, allowing no more than **3/4 scale deflection of the CDI** or within **+/-10°** in case of an RMI.
7. Determine the aircraft position relative to the navigational facility or waypoint (if using GPS).
8. Intercept a DME arc and maintain that arc within **+/-1 nautical mile**.
9. Recognize navigational receiver or facility failure and, when required, report the failure to ATC.
10. Use MFD or other graphical displays (if installed) to monitor aircraft position relative to the appropriate flightpath.

VI. AREA OF OPERATION: INSTRUMENT APPROACH PROCEDURES

NOTE: TASK D, Circling Approach, is applicable only to the airplane category.

NOTE: The requirements for conducting a GPS approach for the purposes of this test are explained in the introduction.

A. TASK: NONPRECISION APPROACH (NPA)

NOTE: *The applicant must perform at least two non-precision approaches, one of which must include a procedure turn (or, in the case of an RNAV approach, a Terminal Arrival Area (TAA) procedure). At least one of these must be flown without the use of autopilot or radar vectors (the yaw damper and flight director are not considered parts of the autopilot for these purposes). If equipment allows, at least one nonprecision approach shall be flown without vertical guidance. The examiner should select nonprecision approaches similar to the type the applicant is likely to use. The choices must utilize two different types of navigational aids. For example: NDB, VOR, LOC, LDA, GPS, or RNAV.*

1. Select and follow the appropriate instrument approach procedure.
2. Establish two-way communications with ATC as appropriate using proper phraseology and technique.
3. Select, tune, identify, and confirm the operational status of navigation equipment used for the approach.
4. Comply with all clearances issued by ATC or the examiner, and promptly advise ATC or the examiner any time if unable to comply with a clearance.
5. Recognize any inaccurate or inoperative flight instrumentation and take appropriate action.
6. Establish the appropriate aircraft configuration and airspeed considering turbulence and wind shear, and complete appropriate checklist items.
7. Prior to the final approach segment, maintain altitude within **+/-100 feet**, heading within **+/-10°**, allow **less than 3/4 scale deflection of the CDI** (or within **+/-10°** in the case of an RMI), and maintain airspeed within **+/-10 knots**.
8. Adjust the MDA and visibility for the aircraft approach category when required by such factors as: NOTAMs, inoperative navigation equipment, inoperative landing visual aids, NWS reporting factors and criteria.

9. Establish a rate of descent and track to ensure arrival at the MDA prior to reaching the MAP, with the aircraft always positioned so that a descent to the intended runway can be made at a normal rate, using normal maneuvers.
10. While on the final approach segment, allow no more than a **3/4-scale deflection of the CDI** (within **10°** in case of an RMI), and maintain the desired airspeed within **+/-10 knots**.
11. Maintain the MDA, when reached, within **+100 feet, -0 feet** to the MAP.
12. Execute the missed approach procedure when the required visual references for the intended runway are not distinctly visible and identifiable at the MAP.
13. Execute a normal landing from a straight-in or circling approach when instructed by the examiner.
14. Use MFD or other graphical displays (if installed) to monitor aircraft position relative to the appropriate flightpath.
15. Demonstrate single-pilot resource management skills.

ASF Tip: *If things really aren't going well on an approach—you got a bad vector to final, or you're having significant trouble getting stabilized on the final approach course—it's usually best to abandon the attempt and try again. In the examiner's eyes, this will probably look better than continuing to push forward into a deteriorating situation. The same holds true for landings.*

B. TASK: PRECISION APPROACH (PA)

NOTE: *A precision approach to DA/DH must be accomplished in simulated or actual instrument conditions.*

1. Perform precision instrument approaches selected by the examiner.
2. Establish two-way communications with ATC as appropriate and use proper phraseology and techniques.

3. Comply with all clearances, instructions, and procedures, and advise ATC if unable to comply.
4. Establish the appropriate airplane configuration and airspeed, considering flight conditions.
5. Complete appropriate checklist items, including engine out approach and landing checklists, if appropriate.
6. Prior to the final approach segment, maintain the desired altitude **+/-100 feet**, airspeed within **+/-10 knots**, heading within **+/-10°**; and accurately track radials, courses, and bearings.
7. Select, tune, identify, and monitor the status of navigation equipment used for the approach.
8. Adjust the MDA and visibility for the aircraft approach category when required by such factors as: NOTAMs, inoperative navigation equipment, inoperative landing visual aids, NWS reporting factors and criteria.
9. At the beginning of the glide slope, establish a rate of descent approximating that required to follow it.
10. Maintain a stabilized approach from the Final Approach Fix to DA/DH, allowing no more than **3/4 scale deflection** of either the glide slope or localizer, and maintain the desired airspeed within **+/-10 knots**.
11. Initiate either a missed approach or a transition to landing at Decision Height.
12. Initiate a missed approach immediately if the required visual references for the runway are not unmistakably visible and identifiable at the DA/DH.
13. Transition to a normal landing approach (missed approach for seaplanes) only when a descent to the runway can be made at a normal rate, using normal maneuvering.
14. Maintain localizer and glide slope within **3/4 scale deflection** during the visual descent from DA/DH until the glide slope must be abandoned to land normally.

15. Use MFD or other graphical displays (if installed) to monitor aircraft position relative to the appropriate flightpath.
16. Demonstrate single-pilot resource management skills.

C. TASK: MISSED APPROACH

1. Initiate the missed approach promptly, in a manner appropriate for the aircraft.
2. Report beginning the missed approach to ATC.
3. Comply with published or alternate missed approach procedures.
4. Advise ATC or examiner whenever unable to comply with a clearance, restriction, or climb gradient.
5. Follow the checklist for the go-around procedure.
6. If appropriate, request ATC clearance to an alternate airport or clearance limit, or as directed by the examiner.
7. Maintain the recommended airspeed within **+/- 10 knots**; heading, course, or bearing within **+/- 10°**; and altitude(s) within **+/-100 feet** during the missed approach procedure.
8. Use MFD or other graphical displays (if installed) to monitor aircraft position relative to the appropriate flightpath.
9. Demonstrate single-pilot resource management skills.

D. TASK: CIRCLING APPROACH

1. Select and comply with the appropriate circling approach procedure considering weather and aircraft capabilities.
2. Confirm the direction of traffic and adhere to all restrictions and ATC/examiner instructions.
3. Do not exceed visibility criteria or descend below the circling altitude until in a position from which a descent to a normal landing can be made.

4. After reaching the authorized MDA, maintain the altitude within **+100 feet, -0 feet** while maneuvering for a normal landing. The runway selected must require at least a 90° change of direction from the final approach course.
5. Demonstrate single-pilot resource management skills.

E. TASK: LANDING FROM A STRAIGHT-IN OR CIRCLING APPROACH

1. Demonstrate an understanding of pilot responsibilities, and the environmental, operational, and meteorological factors that affect a landing from a straight-in or a circling approach.
2. Transition to visual flight at the DA/DH, MDA, or VDP, allowing for safe maneuvering and a normal landing.
3. Adhere to all ATC (or examiner) advisories, such as NOTAMs, wind shear, wake turbulence, runway surface, braking conditions, etc.
4. Complete appropriate checklists for the pre-landing and landing phase.
5. Maintain positive aircraft control throughout the landing maneuver.
6. Demonstrate single-pilot resource management skills.

VII. AREA OF OPERATION: EMERGENCY OPERATIONS

A. TASK: LOSS OF COMMUNICATIONS

1. Know how to recognize a loss of communication.
2. Know when to proceed according to the flight plan, and when to deviate from it.
3. Know how/why to time the beginning of an approach to the destination.

ASF Tip: For the checkride, be sure to know (and follow) the lost communications rules in FAR 91.185 to the letter. In real life, of course, the primary goal is to get yourself and the airplane safely on the ground. If you find VFR conditions, **remain VFR**. If you can't find VFR, under certain circumstances the wisest choice may be to deviate from the planned flight and find a suitable alternate airport (for example, if the failure occurred 15 minutes into a three hour flight through busy airspace).

B. TASK: ONE ENGINE INOPERATIVE DURING STRAIGHT-AND-LEVEL FLIGHT AND TURNS (MULTIENGINE AIRPLANE)

1. Recognize simulated engine failure during straight-and-level flight and turns.
2. Set all engine controls, reduce drag, and identify and verify the inoperative engine.
3. Establish best engine-inoperative airspeed and trim the aircraft.
4. Accomplish checklist procedures for securing the inoperative engine.
5. Establish and maintain the recommended flight attitude for best performance during straight-and-level and turning flight.
6. Attempt to determine the reason for the engine failure.
7. Monitor all engine controls and make necessary adjustments.
8. Maintain the specified altitude within **+/-100 feet** (if within the aircraft's capability), airspeed within **+/-10 knots**, and heading within **+/-10°**.
9. Assess the aircraft's performance capability and determine an appropriate action to ensure a safe landing.
10. Avoid loss of aircraft control, or attempted flight contrary to engine-out operating limitations.

C. TASK: ONE ENGINE INOPERATIVE—INSTRUMENT APPROACH (MULTIENGINE AIRPLANE)

1. Explain procedures for an engine-out instrument approach in a multiengine aircraft.
2. Recognize simulated engine failure promptly.
3. Set all engine controls, reduce drag, and identify and verify the inoperative engine.
4. Establish the best engine-inoperative airspeed and trim the aircraft.
5. Follow checklist procedures for securing the inoperative engine.
6. Establish and maintain the flight attitude and configuration giving best performance for maneuvering during the approach.
7. Attempt to determine the reason for the engine failure.
8. Monitor all engine control functions and make necessary adjustments.
9. Request, receive, and follow an actual or simulated ATC clearance for an instrument approach.
10. Establish a rate of descent that will ensure arrival at the MDA/DH prior to the MAP, with the aircraft always in a position from which a landing on the intended runway can be made straight-in or circling.
11. Where applicable, maintain the specified altitude within **+/-100 feet**, airspeed within **+/-10 knots** (if within the aircraft's capability), and heading within **+/-10°**.
12. Set the navigation and communication equipment for the approach and use proper communication technique.
13. Avoid loss of aircraft control, or attempted flight contrary to engine-out operating limitations.
14. When circling, comply with the published criteria for the aircraft approach category.
15. During the final approach segment, allow no more than **3/4 scale deflection** of either the localizer, glide slope, or GPS indications (**no more than +/-10° or 3/4 scale deflection** of a non-precision final approach course).

16. Use MFD or other graphical displays (if installed) to help navigate the approach.
17. Demonstrate single-pilot resource management skills.
18. Complete a safe landing.

D. TASK: APPROACH WITH LOSS OF PRIMARY FLIGHT INSTRUMENT INDICATORS

Note: This approach counts as one of the required nonprecision approaches.

1. Recognize inaccurate or inoperative primary flight instruments, and advise ATC or the examiner.
2. Advise ATC or examiner whenever unable to comply with a clearance.
3. Demonstrate a nonprecision approach without the use of the primary flight instruments to the standards of the nonprecision approach TASK (AREA OF OPERATION VI, TASK A).

VIII. AREA OF OPERATION: POSTFLIGHT PROCEDURES

A. TASK: CHECKING INSTRUMENTS AND EQUIPMENT

1. Understand proper operation of instrument and navigation equipment.
2. Note all flight equipment for proper operation.
3. Note all equipment and/or aircraft malfunctions and document any improper operation or failures.

Flight Review

BASIC REQUIREMENTS [FAR 61.56(a)]

1.0 hour ground training (minimum)

1.0 hour flight training (minimum)

Must include:

1. A review of general operating and flight rules of FAR part 91.
2. A review of maneuvers and procedures that, at the instructor's discretion, are necessary to demonstrate the safe exercise of certificate privileges.

TIPS FOR PILOTS

- Flight reviews are valid for **24 calendar months**.
Example: If you last completed a flight review on June 6, 2009, you'd be legal to act as PIC (assuming other criteria were met) until June 30, 2010.
- A current medical certificate is **not** required to successfully complete a flight review. If you don't have a medical, however, be sure to let the CFI know: He or she will have to serve as the acting PIC for the flight.
- If you don't successfully complete the flight review with a particular CFI, you're not required to return to the same CFI in order to complete it.
- A completed flight review in **any** category/class of aircraft renews privileges for **all** categories/classes of aircraft.
- You may **not** fly solo without a current flight review (by definition, you're the acting PIC when solo). Nothing, however, prohibits a pilot without a current flight review from manipulating the controls of an aircraft, so long as another qualified pilot is serving as the acting PIC.
- Suggested study topics:
 - FAR Part 91 and other applicable regulations
 - Aeronautical decision making
 - Cross-country flight planning and weather
 - Personal minimums

- Basic flight maneuvers
- Emergency procedures

TIPS FOR CFIs

- Before the review, talk with the pilot:
 - What kind of flying does he/she normally do?
 - How many hours per year?
 - All in the local area?
 - Long cross-country flights?
 - Mainly towered airports? Nontowered?
 - Single-engine? Multiengine?
 - Any areas that need special attention?
 - Handling crosswinds?
 - Airspace knowledge?
 - Communications?
 - Night flying?
- Use that information to tailor the review to the pilot:
 - Cover the finer points of their “everyday” operations.
 - It’s easy to get sloppy on these things.
 - Look for “killer” problems:
 - Stall/spin awareness
 - Basic instrument skills
 - Handling go-arounds
 - Also push beyond the “comfort zone.”
 - Spend some time on things the pilot *doesn’t* do often.
- Test for *understanding*—use scenarios to test decision-making skills.
- Stress security issues—TFRs, airspace, blanket notams, Airport Watch.
- An hour of flight is the minimum:
 - The rustier the pilot, the longer it could take.
 - Take the time **you** feel is necessary: It’s your signature in the logbook.
- Pilots can’t “fail” a flight review:
 - They successfully complete one...
 - Or don’t get an endorsement.

Don’t make the flight review a “box-checking” exercise! Try to teach every pilot something new.

Instrument Proficiency Check

BASIC REQUIREMENTS [FAR 61.57(d)]

- Must consist of a “representative number of tasks required by the instrument rating practical test” (see below).
- Must be given in an aircraft, flight simulator, or FTD appropriate to the aircraft category.
- For gliders, must be given in either a single-engine airplane or a glider.

ASF Tip: Consider the FAA’s instrument currency requirements an absolute minimum. Before acting as PIC on an IFR flight, we suggest that pilots have the following (in addition to FAA requirements):

- At least one hour of actual or simulated instrument time, and at least one instrument approach, in the previous 30 days.
- An instrument proficiency check within the previous six calendar months.

PTS TASKS REQUIRED

- Holding procedures (III - C)
- Recovery from unusual flight attitudes (IV - B)
- Intercepting and tracking navigational systems and DME arcs (V - A)
- Nonprecision approach (VI - A)
- Precision approach (VI - B)
- Missed approach (VI - C)
- Circling approach [airplane category only] (VI - D)
- Landing from a straight-in or circling approach (VI - E)
- Multiengine aircraft only:
 - One engine inoperative during straight-and-level flight and turns (VII - B)
 - One engine inoperative—instrument approach (VII - C)
- Approach with loss of primary flight instrument indicators (VII - D)
- Checking instruments and equipment (VIII - A)

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Sample Endorsements

The following are recommended sample endorsements for use by instructors when endorsing airmen logbooks. **Endorsements must be legible** and include the instructor's signature, date of signature, certificated flight instructor (CFI) or certificated ground instructor (CGI) certificate number, and certificate expiration date, if applicable. Additional endorsements may be found in FAA Advisory Circular 61-65E.

Signatures should follow this format:

[signature] [date] [printed name]

987654321 CFI Exp. 12-31-09

ASF Tip: Not sure about the legal implications of logbook endorsements? AOPA members can learn more by reading the following articles:

“CFI Solo Endorsements”:

**[www.aopa.org/members/ftmag/
article.cfm?article=4549](http://www.aopa.org/members/ftmag/article.cfm?article=4549)**

“Marking Time”:

**[www.aopa.org/members/ftmag/
article.cfm?article=306](http://www.aopa.org/members/ftmag/article.cfm?article=306)**

STUDENT PILOT ENDORSEMENTS

Presolo aeronautical knowledge:

I certify that (First name, MI, Last name) has satisfactorily completed the presolo knowledge exam of section 61.87(b) for the (make and model aircraft).

Presolo flight training:

I certify that (First name, MI, Last name) has received the required presolo training in a (make and model aircraft). I have determined he/she has demonstrated the proficiency of section 61.87(d) and is proficient to make solo flights in (make and model aircraft).

Presolo flight training at night:

I certify that (First name, MI, Last name) has received the required presolo training in a (make and model aircraft). I have determined he/she has demonstrated the proficiency of section 61.87(o) and is proficient to make solo flights at night in a (make and model aircraft).

Solo flight (each additional 90-day period):

I certify that (First name, MI, Last name) has received the required training to qualify for solo flying. I have determined he/she meets the applicable requirements of section 61.87(p) and is proficient to make solo flights in (make and model).

Solo takeoffs and landings at another airport within 25 nm:

I certify that (First name, MI, Last name) has received the required training of section 61.93(b)(1). I have determined that he/she is proficient to practice solo takeoffs and landings at (airport name). The takeoffs and landings at (airport name) are subject to the following conditions: (List any applicable conditions or limitations.)

Initial solo cross-country flight:

I certify that (First name, MI, Last name) has received the required solo cross-country training. I find he/she has met the applicable requirements of section 61.93, and is proficient to make solo cross-country flights in a (make and model aircraft).

Solo cross-country flight:

I have reviewed the cross-country planning of (First name, MI, Last name). I find the planning and preparation to be correct to make the solo flight from (location) to (destination) via (route of flight) with landings at (name the airports) in a (make and model aircraft) on (date). (List any applicable conditions or limitations.)

Repeated solo cross-country flights not more than 50 nm from the point of departure:

I certify that (First name, MI, Last name) has received the required training in both directions between and at both (airport names). I have determined that he/she is proficient of section 61.93(b)(2) to conduct repeated solo cross-country flights over that route, subject to the following conditions: (List any applicable conditions or limitations.)

Solo flight in Class B airspace:

I certify that (First name, MI, Last name) has received the required training of section 61.95(a). I have determined he/she is proficient to conduct solo flights in (name of Class B) airspace. (List any applicable conditions or limitations.)

Solo flight to, from, or at an airport located in Class B airspace:

I certify that (First name, MI, Last name) has received the required training of section 61.95(a)(1). I have determined that he/she is proficient to conduct solo flight operations at (name of airport). (List any applicable conditions or limitations.)

PRIVATE PILOT ENDORSEMENTS

Aeronautical knowledge test:

I certify that (First name, MI, Last name) has received the required training in accordance with section 61.105. I have determined he/she is prepared for the (name the knowledge test).

Flight proficiency/practical test:

I certify that (First name, MI, Last name) has received the required training in accordance with sections 61.107 and 61.109. I have determined he/she is prepared for the (name the practical test).

COMMERCIAL PILOT ENDORSEMENTS*Aeronautical knowledge test:*

I certify that (First name, MI, Last name) has received the required training of section 61.125. I have determined that he/she is prepared for the (name the knowledge test).

Flight proficiency/practical test:

I certify that (First name, MI, Last name) has received the required training of section 61.127 and section 61.129. I have determined he/she is prepared for the (name the practical test).

INSTRUMENT RATING ENDORSEMENTS*Aeronautical knowledge test:*

I certify that (First name, MI, Last name) has received the required training of section 61.65(b). I have determined that he/she is prepared for the (name the knowledge test).

Flight proficiency/practical test:

I certify that (First name, MI, Last name) has received the required training of section 61.65(c) and (d). I have determined he/she is prepared for the Instrument—(airplane, helicopter, or powered-lift) practical test.

ADDITIONAL ENDORSEMENTS*Completion of a flight review:*

I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has satisfactorily completed a flight review of section 61.56(a) on (date).

NOTE: No logbook entry reflecting unsatisfactory performance on a flight review is required.

Completion of a phase of an FAA-sponsored pilot proficiency award program (WINGS):

I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has satisfactorily completed the ___ phase of a WINGS program on (date).

Completion of an instrument proficiency check:

I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has satisfactorily completed the instrument proficiency check of section 61.57(d) in a (list make and model of aircraft) on (date).

NOTE: *No logbook entry reflecting unsatisfactory performance on an instrument proficiency check is required.*

To act as PIC in a complex airplane:

I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has received the required training of section 61.31(e) in a (make and model of complex airplane). I have determined that he/she is proficient in the operation and systems of a complex airplane.

To act as PIC in a high performance airplane:

I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has received the required training of section 61.31(f) in a (make and model of high performance airplane). I have determined that he/she is proficient in the operation and systems of a high performance airplane.

To act as PIC in a tailwheel airplane:

I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has received the required training of section 61.31(i) in a (make and model of tailwheel airplane). I have determined that he/she is proficient in the operation of a tailwheel airplane.

To act as PIC of an aircraft in solo operations when the pilot does not hold an appropriate category/class rating:

I certify that (First name, MI, Last name) has received the training as required by section 61.31(d)(3) to serve as a PIC in a (category and class of aircraft). I have determined that he/she is prepared to serve as PIC in that (make and model of aircraft).

Retesting after failure of a knowledge or practical test:

I certify that (First name, MI, Last name) has received the additional (flight and/or ground, as appropriate) training as required by section 61.49. I have determined that he/she is prepared for the (name the knowledge/practical test).

NOTE: *In the case of a failed knowledge test, the instructor may complete the endorsement in the space provided at the bottom of the applicant's airman knowledge test report. The instructor must sign the block provided for the instructor's recommendation on the reverse side of FAA Form 8710-1 application for each retake of a practical test.*

Additional aircraft category or class rating (other than ATP):

I certify that (First name, MI, Last name), (pilot certificate), (certificate number), has received the required training for an additional (name the aircraft category/class rating). I have determined that he/she is prepared for the (name the practical test) for the addition of a (name the aircraft category/class rating).

Review of a home study curriculum:

I certify I have reviewed the home study curriculum of (First name, MI, Last name). I have determined he/she is prepared for the (name the knowledge test).

Verification of U.S. citizenship:

I certify that (First name, MI, Last name) has presented me a (insert type of document presented, such as a U.S. birth certificate or U.S. passport, and the relevant control or sequential number on the document, if any) establishing that (he or she) is a U.S. citizen or national in accordance with 49 CFR 1552.3(h).