Applicant's Practical Test Checklist

Appointment with Inspector or Examiner

Name:_____

Date/Time: _____

ACCEPTABLE AIRCRAFT

- ☐ View-Limiting Device (if applicable)
- ☐ Aircraft Documents:
  - ☐ Airworthiness Certificate
  - ☐ Registration Certificate
  - ☐ Operating Limitations
- ☐ Aircraft Maintenance Records:
  - ☐ Airworthiness Inspections
- ☐ Pilot's Operating Handbook and FAA-Approved Airplane Flight Manual

PERSONAL EQUIPMENT

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

PERSONAL RECORDS

- ☐ Pilot Certificate
- ☐ Medical Certificate
- ☐ Completed FAA Form 8710-1, Airman Certificate and/or Rating Application
- ☐ Airman Knowledge Test Report
- ☐ Logbook with Instructor's Endorsement
- ☐ Letter of Discontinuance (if applicable)
- ☐ Notice of Disapproval (if applicable)
- ☐ Approved School Graduation Certificate (if applicable)
- ☐ Examiner's Fee (if applicable)

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Examiner's Practical Test Checklist

Flight Instructor – Airplane

(Single-Engine)

Applicant's Name: _____

Examiner's Name: _____

Date:_____ **Type Check:** _____

Type Airplane: _____

Area of Operation:

I. FUNDAMENTALS OF INSTRUCTING

- ☐ **A.** Human Behavior and Effective Communication
- ☐ **B.** The Learning Process
- ☐ **C.** The Teaching Process
- ☐ **D.** Assessment and Critique
- ☐ **E.** Instructor Responsibilities and Professionalism
- ☐ **F.** Techniques of Flight Instruction
- ☐ **G.** Risk Management

II. TECHNICAL SUBJECT AREAS

- ☐ **A.** Aeromedical Factors
- ☐ **B.** Runway Incursion Avoidance
- ☐ **C.** Visual Scanning and Collision Avoidance
- ☐ **D.** Principles of Flight
- ☐ **E.** Airplane Flight Controls
- ☐ **F.** Airplane Weight and Balance
- ☐ **G.** Navigation and Flight Planning
- ☐ **H.** Night Operations
- ☐ **I.** High Altitude Operations
- ☐ **J.** 14 CFR and Publications
- ☐ **K.** National Airspace System
- ☐ **L.** Navigation Systems and Radar Services
- ☐ **M.** Logbook Entries and Certificate Endorsements
- ☐ **N.** Water and Seaplane Characteristics
- ☐ **O.** Seaplane Bases, Rules, and Aids to Marine Navigation

III. PREFLIGHT PREPARATION

- ☐ **A.** Certificates and Documents

- ☐ **B.** Weather Information
- ☐ **C.** Operation of Systems
- ☐ **D.** Performance and Limitations

- ☐ **E.** Airworthiness Requirements

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

- ☐ **A.** Maneuver Lesson

V. PREFLIGHT PROCEDURES

- ☐ **A.** Preflight Inspection
- ☐ **B.** Cockpit Management
- ☐ **C.** Engine Starting
- ☐ **D.** Taxiing—Landplane
- ☐ **E.** Taxiing—Seaplane
- ☐ **F.** Sailing
- ☐ **G.** Before Takeoff Check

VI. AIRPORT AND SEAPLANE BASE OPERATIONS

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

VII. TAKEOFFS, LANDINGS, AND GO-AROUNDS

- ☐ **A.** Normal and Crosswind Takeoff and Climb
- ☐ **B.** Short-Field (Confined Area ASES) Takeoff and Maximum Performance Climb
- ☐ **C.** Soft-Field Takeoff and Climb
- ☐ **D.** Glassy-Water Takeoff and Climb
- ☐ **E.** Rough-Water Takeoff and Climb
- ☐ **F.** Normal and Crosswind Approach and Landing
- ☐ **G.** Slip to a Landing
- ☐ **H.** Go-Around/Rejected Landing
- ☐ **I.** Short-Field (Confined Area ASES) Approach and Landing
- ☐ **J.** Soft-Field Approach and Landing
- ☐ **K.** Power-Off 180° Accuracy Approach and Landing
- ☐ **L.** Glassy-Water Approach and Landing
- ☐ **M.** Rough-Water Approach and Landing

VIII. FUNDAMENTALS OF FLIGHT

- ☐ **A.** Straight-and-Level Flight
- ☐ **B.** Level Turns
- ☐ **C.** Straight Climbs and Climbing Turns
- ☐ **D.** Straight Descents and Descending Turns

IX. PERFORMANCE MANEUVERS A or B and C or D

- ☐ **A.** Steep Turns
- ☐ **B.** Steep Spirals
- ☐ **C.** Chandelles

- ☐ **D.** Lazy Eights

X. GROUND REFERENCE MANEUVERS

- ☐ **A.** Rectangular Course
- ☐ **B.** S-Turns Across a Road
- ☐ **C.** Turns Around a Point
- ☐ **D.** Eights on Pylons

XI. SLOW FLIGHT, STALLS, AND SPINS

- ☐ **A.** Maneuvering During Slow Flight
- ☐ **B.** Power-On Stalls (Proficiency)
- ☐ **C.** Power-Off Stalls (Proficiency)
- ☐ **D.** Cross-controlled Stalls (Demonstration)
- ☐ **E.** Elevator Trim Stalls (Demonstration)
- ☐ **F.** Secondary Stalls (Demonstration)
- ☐ **G.** Spins
- ☐ **H.** Accelerated Maneuver Stalls (Demonstration)

XII. BASIC INSTRUMENT MANEUVERS

- ☐ **A.** Straight-and-Level Flight
- ☐ **B.** Constant Airspeed Climbs
- ☐ **C.** Constant Airspeed Descents
- ☐ **D.** Turns to Headings
- ☐ **E.** Recovery from Unusual Flight Attitudes

XIII. EMERGENCY OPERATIONS

- ☐ **A.** Emergency Approach and Landing (Simulated)
- ☐ **B.** Systems and Equipment Malfunctions
- ☐ **C.** Emergency Equipment and Survival Gear
- ☐ **D.** Emergency Descent

XIV. POSTFLIGHT PROCEDURES

- ☐ **A.** Postflight Procedures
- ☐ **B.** Anchoring
- ☐ **C.** Docking and Mooring
- ☐ **D.** Beaching
- ☐ **E.** Ramping

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Areas of Operation:

I. Fundamentals of Instructing

Note: *The examiner shall select Task E and one other Task.*

Task A: Human Behavior and Effective Communication

Reference: *FAA-H-8083-9A.*

Objective: To determine that the applicant exhibits instructional knowledge of human behavior and effective communication and how these impact effective learning by describing:

1. Definitions of human behavior.

2. Human needs and motivation.

3. Defense mechanisms. (RRR, DD, P)

4. Student emotional reactions.

5. Basic elements of communication.

6. Barriers to effective communication.

7. Developing communication skills.

Task B: The Learning Process

REFERENCE: FAA-H-8083-9A.

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

1. Learning theory.

2. Perceptions and insight.

3. Acquiring knowledge.

4. The laws of learning. (REEPIR)

5. Domains of learning.

6. Characteristics of learning— Learning is:

7. Acquiring skill knowledge. — 3 stages

9. Scenario-based training.

10. Errors.

11. Memory and forgetting.

12. Retention of learning.

13. Transfer of learning.

Task C: The Teaching Process

Reference: FAA-H-8083-9A.

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

1. Preparation of a lesson.

2. Organization of material.

3. Training delivery methods:
   a. Lecture method.

b. Guided discussion method.

c. Computer-assisted learning method.

d. Demonstration-performance method.

e. Drill and practice method.

4. Problem based learning.

5. Instruction aids and training technologies.

Task D: Assessment and Critique

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of assessments and critiques by describing:

1. Assessment:

   a. Purpose of assessment.

   b. General characteristics of effective assessment.

c. Traditional assessment.

d. Authentic assessment.

e. Oral assessment.

f. Characteristics of effective questions.

g. Types of questions to avoid.

2. Critique:

a. Instructors/student critique.

b. Student-lead critique.

c. Small group critique.

d. Individual student critique by another student.

e. Self-critique.

f. Written critique.

Task E: Instructor Responsibilies and Professionalism

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of instructor responsibilities and professionalism by describing:

1. Aviation instructor responsibilities:

   a. Helping students learn.

b. Providing adequate instruction.

c. Standards of performance.

d. Minimizing student frustrations.

2. Flight instructor responsibilities:

a. Physiological obstacles for flight students.

b. Ensuring student ability.

3. Professionalism.

4. Evaluation of student ability.

5. Aviation instructors and exams.

6. Professional development.

Task F: Techniques of Flight Instruction

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional

knowledge of instructor responsibilities and professionalism by describing:

1. Obstacles in learning during flight instruction.

2. Demonstration-performance training delivery.

3. Positive exchange of controls.

4. Sterile cockpit.

5. Use of distractions.

6. Integrated flight instruction.

7. Assessment of piloting ability.

8. Aeronautical decision making.

Task G: Risk Management

References: FAA-H-8083-9A, FAA-H-8083-2

Objective: To determine that the applicant exhibits instructional knowledge of risk management by describing:

1. Principles of risk management.

2. Risk management process.

3. Level of risk.

4. Assessing risk.

5. Mitigating risk.

6. IMSAFE checklist.

7. PAVE checklist.

8. 5P checklist.

II. Technical Subject Areas

Note: *The examiner must select Tasks B, M, and at least one other Task.*

Task A: Aeromedical Factors

References: AIM; FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6.

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

4. The effects of alcohol and drugs, and their relationship to flight safety.

5. The effect of nitrogen excesses incurred during scuba dives and how this affects pilots and passengers during flight.

Task B: Runway Incursion Avoidance

References: AC 91-73, A/FD, AIM; FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25.

Note: *If this task has been previously performed in the aircraft during an earlier instructor rating, the determination of the required knowledge can be demonstrated during the brief, at the discretion of the examiner.*

Objective: To determine that the applicant exhibits instructional knowledge of the elements of runway incursion avoidance by describing:

1. Distinct challenges and requirements during taxi operations not found in other phases of flight operations.

2. Procedures for appropriate cockpit activities during taxiing including taxi route planning, briefing the location of hot spots, communicating and coordinating with ATC.

3. Procedures for steering, maneuvering, maintaining taxiway, runway position, and situational awareness.

4. The relevance/importance of hold lines.

5. Procedures for ensuring the pilot maintains strict focus on the movement of the aircraft and ATC communications, including the elimination of all distractive activities (i.e. cell phone, texting, conversations with passengers) during aircraft taxi, takeoff and climb out to cruise altitude.

6. Procedures for holding the pilot's workload to a minimum during taxi operations which should increase the pilot's awareness while taxiing.

7. Taxi operation planning procedures, such as recording taxi instructions, reading back taxi clearances, and reviewing taxi routes on the airport diagram.

8. Procedures for ensuring that clearance or instructions that are actually received are adhered to rather than the ones expected to be received.

9. Procedures for maintaining/enhancing situational awareness when conducting taxi operations in relation to other aircraft operations in the vicinity as well as to other vehicles moving on the airport.

10. Procedures for briefing if a landing rollout to a taxiway exit will place the pilot in close proximity to another runway which can result in a runway incursion.

11. Appropriate after landing/taxi procedures in the event the aircraft is on a taxiway that is between parallel runways.

12. Specific procedures for operations at an airport with an operating air traffic control tower, with emphasis on ATC communications and runway entry/crossing authorizations.

13. ATC communications and pilot actions before takeoff, before landing, and after landing at towered and non-towered airports.

14. Procedures unique to night operations.

15. Operations at non-towered airports.

16. Use of aircraft exterior lighting.

17. Low visibility operations.

Task C: Visual Scanning and Collision Avoidance

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

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.

Task D: Principles of Flight

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

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

1. Airfoil design characteristics.

2. Airplane stability and controllability.

3. Turning tendency (torque effect).

4. Load factors in airplane design.

5. Wingtip vortices and precautions to be taken.

Task E: Airplane Flight Controls

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

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the airplane

flight controls by describing the purpose, location, direction of movement, effect, and proper procedure for use of the:

1. Primary flight controls.

2. Secondary flight controls.

3. Trim Controls.

Task F: Airplane Weight and Balance

References: FAA-H-8083-1, FAA-H-8083-3, FAA-H-8083-25.

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

1. Weight and balance terms.Arm: horizontal distance in inches from reference datum line to CG

2. Effect of weight and balance on performance.

3. Methods of weight and balance control.

4. Determination of total weight and center of gravity and the changes that occur when adding, removing, or shifting weight.

Task G: Navigation and Flight Planning

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

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

1. Terms used in navigation.

2. Features of aeronautical charts.

3. Importance of using the proper and current aeronautical charts.

4. Method of plotting a course, selection of fuel stops and alternates, and appropriate actions in the event of un-foreseen situations.

5. Fundamentals of pilotage and dead reckoning.

6. Fundamentals of radio navigation.

7. Diversion to an alternate.

8. Lost procedures. (5Cs)

9. Computation of fuel consumption.

10. Importance of preparing and properly using a flight log.

11. Importance of a weather check and the use of good judgment in making a “go/no-go” decision.

12. Purpose of and procedure used in filing a flight plan.

Task H: Night Operations

References: AIM; FAA-H-8083-3, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of night operations by describing:

1. Factors related to night vision.

2. Disorientation and night optical illusions.

3. Proper adjustment of interior lights.

4. Importance of having a flashlight with a red lens.

5. Night preflight inspection.

6. Engine starting procedures, including use of position and anti-collision lights prior to start.

7. Taxiing and orientation on an airport.

8. Takeoff and climb-out.

9. In-flight orientation.

10. Importance of verifying the airplane's attitude by reference to flight instruments.

11. Night emergencies procedures.

12. Traffic patterns.

13. Approaches and landings with and without landing lights.

14. Go-around.

Task I: High Altitude Operations

References: 14 CFR part 91, AC 61-107, AIM, POH/AFM; FAA-H-8083-3, FAA-S-8081-12.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of high altitude operations by describing:

1. Regulatory requirements for use of oxygen.

2. Physiological hazards associated with high altitude operations.

3. Characteristics of a pressurized airplane and various types of supplemental oxygen systems.

4. Importance of “aviator’s breathing oxygen.”

5. Care and storage of high-pressure oxygen bottles.

6. Problems associated with rapid decompression and corresponding solutions.

7. Fundamental concept of cabin pressurization.

8. Operation of a cabin pressurization system.

Task J: 14 CFR and Publications

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

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the Code of Federal Regulations and related publications by describing:

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 airplane flight manuals by describing:
   a. Availability.
   b. Purpose.
   c. General content.

Task K: National Airspace System

References: 14 CFR part 91, AIM; FAA-S-8081-12, FAA-S-ACS-6.

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

1. Basic VFR Weather Minimums for all classes of airspace. (91.155)

2. Airspace classes—the operating rules, pilot certification, and airplane equipment requirements for the following:

   a. Class A.

   b. Class B.

   c. Class C.

   d. Class D.

   e. Class E.

   f. Class G.

3. Special use airspace (SUA).

4. Temporary flight restrictions (TFR).

Task L: Navigation Systems and Radar Services

References: AIM; FAA-H-8083-3, FAA-H-8083-15, FAA-S-8081-12, FAA-S-ACS-6.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to navigation systems and radar service by describing:

1. One ground-based navigational system (VOR/VORTAC, NDB, and DME).

2. Satellite-based navigation system.

3. Radar service and procedures.

4. Global positioning system (GPS).

Task M: 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.

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2. Required student pilot certificate endorsements, including appropriate logbook entries.

3. Preparation of a recommendation for a pilot practical test, including appropriate logbook entry for:

    a. Initial pilot certification.

    b. Additional pilot certification.

c. Additional aircraft qualification.

4. Required endorsement of a pilot logbook for the satisfactory completion of the required FAA flight review.

5. Required flight instructor records.

~~***Task N: Water and Seaplane Characteristics (ASES)***~~ ***N/A***

~~***Task O: Seaplane Bases, Rules, and Aids to Marine Navigation (ASES)***~~ ***N/A***

III. Preflight Preparation

Note: *The examiner must select at least one Task.*

Task A: Certificates and Documents

References: 14 CFR parts 23, 43, 61, 67, 91; FAA-H-8083-3, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

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

1. The training requirements for the issuance of a recreational, private, and commercial pilot certificate.

2. The privileges and limitations of pilot certificates and ratings at recreational, private, and commercial levels.

3. Class and duration of medical certificates.

4. Recent pilot flight experience requirements.

5. Required entries in pilot logbook or flight record.

Task B: Weather Information

References: AC 00-6, AC 00-45; FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6.

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

1. Importance of a thorough preflight weather briefing.

2. Various means and sources of obtaining weather information.

3. Use of real-time weather reports, forecasts, and charts for developing scenario-based training.

4. In-flight weather advisories.

5. Recognition of aviation weather hazards to include wind shear.

6. Factors to be considered in making a “go/no-go” decision.

Task C: Operation of Systems

References: FAA-H-8083-3, FAA-H-8083-23, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the operation of systems, as applicable to the airplane used for the practical test, by describing the following systems:

1. Primary and secondary flight controls

2. Trim

3. Water rudders (ASES)
(N/A)

4. Powerplant and propeller

5. Landing gear

6. Fuel, oil, and hydraulic

7. Electrical

8. Avionics including autopilot

9. Pitot static, vacuum/pressure and associated instruments

10. Environmental

11. Deicing and anti-icing

Task D: Performance and Limitations

References: AC 61-84; FAA-H-8083-3, FAA-H-8083-23, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

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

1. Determination of weight and balance condition.

2. Use of performance charts, tables, and other data in determining performance in various phases of flight.

3. Effects of exceeding airplane limitations.

4. Effects of atmospheric conditions on performance.

5. Factors to be considered in determining that the required performance is within the airplane's capabilities.

Task E: Airworthiness Requirements

References: 14 CFR parts 23, 39, 43; FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to required airworthiness by explaining:

1. Required instruments and equipment for day/night VFR.

2. Procedures and limitations for determining airworthiness of the airplane with inoperative instruments and equipment with and without a minimum equipment list (MEL).

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3. Requirements and procedures for obtaining a special flight permit.

4. Airworthiness directives, compliance records, maintenance/ inspection requirements, and appropriate records.

5. Procedures for deferring maintenance on aircraft without an approved MEL.

IV. Preflight Lesson on a Maneuver to be Performed in Flight

Note: *Examiner must select at least one maneuver Task from Areas of Operation VII through XIII, and ask the applicant to present a preflight lesson on the selected maneuver as the lesson would be taught to a student.*

Task A: Maneuver Lesson

References: FAA-H-8083-3, FAA-H-8083-9, FAA-H-8083-23, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM, FLY8MA Lesson Plan Template.

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.

V. Preflight Procedures

Note: *The examiner must select at least one Task.*

Task A: Preflight Inspection (ASEL and ASES)

References: AC 61-84; FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a preflight inspection, as applicable to the airplane used for the practical test, by describing:

a. Reasons for the preflight inspection, items that should be inspected, and how defects are detected.

b. Importance of using the appropriate checklist.

c. How to determine fuel and oil quantity and contamination.

d. Detection of fuel, oil, and hydraulic leaks.

e. Inspection of the oxygen system, including supply and proper operation (if applicable).

f. Inspection of the flight controls and water rudder (if applicable).

g. Detection of visible structural damage.

h. Removal of tie-downs, control locks, and wheel chocks.

i. Removal of ice and frost.

j. Importance of the proper loading and securing of baggage, cargo, and equipment.

k. Use of sound judgment in determining whether the airplane is airworthy and in condition for safe flight.

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

a. Failure to use or the improper use of checklist.

b. Hazards which may result from allowing distractions to interrupt a visual inspection.

c. Inability to recognize discrepancies to determine airworthiness.

d. Failure to ensure servicing with the proper fuel and oil.

e. Failure to ensure proper loading and securing of baggage, cargo, and equipment.

3. Demonstrates and simultaneously explains a preflight inspection from an instructional standpoint.

Task B: Cockpit Management (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of cockpit management by describing:

   a. Proper arranging and securing of essential materials and equipment in the cockpit.

   b. Proper use and/or adjustment of cockpit items such as safety belts, shoulder harnesses, rudder pedals, and seats.

   c. Occupant briefing on emergency procedures and use of safety belts.

   d. Proper utilization of all resources required to operate a flight safely: dispatchers, weather briefers, maintenance personnel, and air traffic control.

2. Exhibits instructional knowledge of common errors related to cockpit management by describing:

   a. Failure to place and secure essential materials and equipment for easy access during flight.

b. Failure to properly adjust cockpit items, such as safety belts, shoulder harnesses, rudder pedals, and seats.

c. Failure to provide proper adjustment of equipment and controls.

d. Failure to provide occupant briefing on emergency procedures and use of safety belts.

e. Failure to utilize all resources required to operate a flight safely.

3. Demonstrates and simultaneously explains cockpit management from an instructional standpoint.

Task C: Engine Starting (ASEL and ASES)

References: AC 91-13, AC 91-55; FAA-S-8081-12, FAA-S-ACS-6, FAA-H-8083-3, FAA-H-8083-23, FAA-H-8083-25; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of engine starting, as appropriate to the airplane used for the practical test, by describing:

   a. Safety precautions related to starting.

   b. Use of external power.

   c. Effect of atmospheric conditions on starting.

   d. Importance of following the appropriate checklist.

   e. Adjustment of engine controls during start.

   f. Prevention of airplane movement during and after start.

   g. Safety procedures for hand-propping an airplane.

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

a. Failure to properly use the appropriate checklist.

b. Failure to use safety precautions related to starting.

c. Improper adjustment of engine controls during start.

d. Failure to assure proper clearance of the propeller.

3. Demonstrates and simultaneously explains engine starting from an instructional standpoint.

Task D: Taxiing—Landplane (ASEL)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of landplane taxiing by describing:

   a. Proper brake check and correct use of brakes.

   b. Compliance with airport/taxiway surface marking,

signals, and ATC clearances or instructions.

c. How to control direction and speed.

d. Flight control positioning for various wind conditions.

e. Procedures used to avoid other aircraft and hazards.

f. Runway incursion avoidance procedures.

g. Procedures for eliminating pilot distractions.

h. Use of taxi chart during taxi.

i. Airport, taxiway, and runway position situational awareness.

j. Additional taxiing operations concerns at a non-towered airport.

2. Exhibits instructional knowledge of common errors related to landplane taxiing by describing:

a. Improper use of brakes.

b. Improper positioning of the flight controls for various wind conditions.

c. Hazards of taxiing too fast.

d. Hazards associated with the failure to comply with airport/taxiway surface marking, signals, and ATC clearances or instructions.

e. Hazards of becoming distracted while taxiing.

f. Hazards associated with failing to adhere to sterile cockpit

procedures.

3. Demonstrates and simultaneously explains landplane taxiing from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to landplane taxiing.

~~***Task E: Taxiing—Seaplane (ASES)***~~ ***N/A***

~~***Task F: Sailing (ASES)***~~ ***N/A***

Task G: Before Takeoff Check (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of the before takeoff check by describing:
    a. Positioning the airplane with consideration for other aircraft, surface conditions, and wind.
    b. Division of attention inside and outside the cockpit.
    c. Importance of following the checklist and responding to each checklist item.

d. Reasons for assuring suitable engine temperatures and pressures for run-up and takeoff.

e. Method used to determine that airplane is in a safe operating condition.

f. Importance of reviewing takeoff performance air-speeds, expected takeoff distances, and emergency procedures.

g. Method used for assuring that the takeoff area or path is free of hazards.

h. Method of avoiding runway incursions and ensuring no conflict with traffic prior to taxiing into takeoff position.

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

   a. Failure to properly use the appropriate checklist.

   b. Improper positioning of the airplane.

   c. Improper acceptance of marginal engine performance.

   d. An improper check of flight controls.

   e. Hazards of failure to review takeoff and emergency procedures.

   f. Failure to avoid runway incursions and to ensure no conflict with traffic prior to taxiing into takeoff position.

3. Demonstrates and simultaneously explains a before takeoff check from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a before takeoff check.

VI. Airport and Seaplane Base Operations

Note: *The examiner must select at least one Task.*

Task A: Radio Communications and ATC Light Signals (ASEL and ASES)

References: AIM; FAA-H-8083-3, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6, JO 7110.65, AC 90-66B.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of radio communications and ATC light signals by describing:

   a. Selection and use of appropriate radio frequencies.

   b. Recommended procedure and phraseology for radio communications.

   c. Receipt of, acknowledgement of, and compliance with ATC clearances and instructions.

d. Interpretation of and compliance with ATC light signals.

2. Exhibits instructional knowledge of common errors related to radio communications and ATC light signals by describing:

   a. Use of improper frequencies.

   b. improper procedure and phraseology when using radio communications, such as neglecting to state the aircraft call sign/n number at non-towered airports, failure to state position, runway of takeoff, and the airport of operation.

   c. Failure to acknowledge, or properly comply with, ATC clearances and instructions.

   d. Failure to understand, or to properly comply with, ATC light signals.

3. Demonstrates and simultaneously explains radio communication procedures from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to radio communications and ATC light signals.

Task B: Traffic Patterns (ASEL and ASES)

References: ~~AC 90-42~~, AC 90-66, AIM; FAA-H-8083-3, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of traffic patterns by describing:

   a. Operations at airports and seaplane bases with and without operating control towers.

   b. Adherence to traffic pattern procedures, instructions, and rules.

   c. How to maintain proper spacing from other traffic.

   d. How to maintain the desired ground track.

   e. Wind shear and wake turbulence avoidance procedures.

f. Orientation with the runway or landing area in use.

g. How to establish a final approach at an appropriate distance from the runway or landing area.

h. Use of checklist.

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

a. Failure to comply with traffic pattern instructions, procedures, and rules.

b. Improper correction for wind drift.

c. Inadequate spacing from other traffic.

d. Poor altitude or airspeed control.

3. Demonstrates and simultaneously explains traffic patterns from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to traffic patterns.

Task C: Airport/Seaplane Base, Runway and Taxiway Signs, Markings, and Lighting (ASEL and ASES)

References: AIM; AC 91-73, AC 150/5340-1, AC 150/5340-18; FAA-H-8083-23, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6. FAA Table placemat with taxiway markings.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of airport/ seaplane base runway and taxiway signs, markings, and lighting by describing:

a. Identification and proper interpretation of airport/seaplane base, runway and taxiway signs and markings with emphasis on runway incursion avoidance.

b. Identification and proper interpretation of airport/seaplane base, runway and taxiway lighting with emphasis on runway incursion avoidance.

2. Exhibits instructional knowledge of common errors related to airport/seaplane base, runway and taxiway signs, markings, and lighting by describing:

   a. Failure to comply with airport/seaplane base, runway and taxiway signs and markings.

   b. Failure to comply with airport/seaplane base, runway and taxiway lighting.

   c. Failure to use proper runway incursion avoidance procedures.

3. Demonstrates and simultaneously explains airport/seaplane base, runway and taxiway signs, markings, and lighting from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to airport/seaplane base, runway and taxiway signs, markings, and lighting.

VII. Takeoffs, Landings, and Go-Arounds

Note: *The examiner must select at least two takeoff and two landing Tasks.*

Task A: Normal and Crosswind Takeoff and Climb (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

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

   a. Procedures before taxiing onto the runway or takeoff area to ensure runway incursion avoidance. Verify ATC clearance/no aircraft on final at non-towered airports before entering the runway, and ensure correct takeoff runway positioning of the airplane with consideration for other aircraft, surface conditions, and wind.

   b. Normal and crosswind takeoff and lift-off procedures.

   c. Difference between a normal and a glassy-water takeoff (ASES).

      - Not applicable.

   d. Proper climb attitude, power setting, and airspeed (V_Y).

e. Proper use of checklist.

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

a. Improper runway incursion avoidance procedures.

b. Improper use of controls during a normal or crosswind takeoff.

c. Inappropriate lift-off procedures.

d. Improper climb attitude, power setting, and airspeed (V_Y).

e. Improper use of checklist.

3. Demonstrates and simultaneously explains a normal or a crosswind takeoff and climb from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a normal or a crosswind takeoff and climb.

Task B: Short-Field (Confined Area ASES) Takeoff and Maximum Performance Climb (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-2, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a short-field takeoff and climb by describing:

   a. Procedures before taxiing onto the runway or takeoff area to ensure runway incursion avoidance. Verify ATC clearance/no aircraft on final at non-towered airports before entering the runway, and ensure correct takeoff runway positioning of the airplane with consideration for other aircraft, surface conditions, and wind.

   b. Short-field takeoff and lift-off procedures.

   c. Initial climb attitude and airspeed (V_X) until obstacle is cleared (50 feet AGL).

d. Proper use of checklist.

2. Exhibits instructional knowledge of common errors related to a short-field takeoff and climb by describing:

a. Improper runway incursion avoidance procedures.

b. Improper use of controls during a short-field takeoff.

c. Improper lift-off procedures.

d. Improper initial climb attitude, power setting, and airspeed (V_X) to clear obstacle.

e. Improper use of checklist.

3. Demonstrates and simultaneously explains a short-field takeoff and climb from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a short-field takeoff and climb.

Task C: Soft-Field Takeoff and Climb (ASEL)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a soft-field takeoff and climb by describing:

a. Procedures before taxiing onto the runway or takeoff area to ensure runway incursion avoidance. Verify ATC clearance/no aircraft on final at non-towered airports before entering the runway, and ensure that correct

takeoff runway positioning of the airplane with consideration for other aircraft, surface conditions, and wind.

b. Soft-field takeoff and lift-off procedures.

c. Initial climb attitude and airspeed, (V_X, if an obstacle is present (50 feet AGL), or V_Y).

d. Proper use of checklist.

2. Exhibits instructional knowledge of common errors related to a soft-field takeoff and climb by describing:

a. Improper runway incursion avoidance procedures.

b. Improper use of controls during a soft-field takeoff.

c. Improper lift-off procedures.

d. Improper climb attitude, power setting, and airspeed (V_Y or V_X).

e. Improper use of checklist.

3. Demonstrates and simultaneously explains a soft-field takeoff and climb from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a soft-field takeoff and climb.

~~***Task D: Glassy-Water Takeoff and Climb (ASES)***~~ ***N/A***

~~***Task E: Rough-Water Takeoff and Climb (ASES)***~~ ***N/A***

Task F: Normal and Crosswind Approach and Landing (ASEL and ASES)

References: AC 91-73; FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a normal and a crosswind approach and landing by describing:

   a. How to determine landing performance and limitations.

   b. Configuration, power, and trim.

   c. Obstructions and other hazards which should be considered.

   d. A stabilized approach at the recommended airspeed to the selected touchdown area.

   e. Course of action if selected touchdown area is going to be missed.

f. Coordination of flight controls.

g. A precise ground track.

h. Wind shear and wake turbulence avoidance procedures.

i. Most suitable crosswind procedure.

j. Timing, judgment, and control procedure during roundout and touchdown.

k. Directional control after touchdown.

l. Use of brakes (landplane).

m. Use of checklist.

n. After landing runway incursion avoidance procedures.

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

a. Improper use of landing performance data and limitations.

b. Failure to establish approach and landing configuration at appropriate time or in proper sequence.

c. Failure to establish and maintain a stabilized approach.

d. Inappropriate removal of hand from throttle.

e. Improper procedure during roundout and touchdown.

f. Poor directional control after touchdown.

g. Improper use of brakes (ASEL).

h. Failure to ensure receipt and acknowledgement of landing clearance.

i. Failure to review airport diagram for runway exit situational awareness to avoid a runway incursion after landing.

3. Demonstrates and simultaneously explains a normal or a crosswind approach and landing from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a normal or crosswind approach and landing.

Task G: Slip to a Landing (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-ACS-6; POH/AFM, Pilot's Handbook of Aeronautical Knowledge.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a slip (forward and side) to a landing by describing:

   a. Configuration, power, and trim.

   b. Obstructions and other hazards which should be considered.

   c. A stabilized slip at the appropriate airspeed to the selected touchdown area.

   d. Possible airspeed indication errors.

e. Proper application of flight controls.

f. A precise ground track.

g. Wind shear and wake turbulence avoidance procedures.

h. Timing, judgment, and control procedure during transition from slip to touchdown.

i. Directional control after touchdown.

j. Use of brakes (ASEL).

k. Use of checklist.

l. After landing runway incursion avoidance procedures.

2. Exhibits instructional knowledge of common errors related to a slip (forward and side) to a landing by describing:

a. Improper use of landing performance data and limitations.

b. Failure to establish approach and landing configuration at appropriate time or in proper sequence.

c. Failure to maintain a stabilized slip.

d. Inappropriate removal of hand from throttle.

e. Improper procedure during transition from the slip to the touchdown.

f. Poor directional control after touchdown.

g. Improper use of brakes (landplane).

3. Demonstrates and simultaneously explains a forward or sideslip to a landing from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a forward or sideslip to a landing.

Task H: Go-Around/Rejected Landing (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a go-around/rejected landing by describing:

   a. Situations where a go-around/rejected landing is necessary.

   b. Importance of making a prompt decision.

   c. Importance of applying takeoff power immediately after the go-around/rejected landing decision is made.

   d. Importance of establishing proper pitch attitude.

   e. Wing flaps retraction, if applicable.

   f. Use of trim.

g. Landing gear retraction, if applicable.

h. Proper climb speed.

i. Proper track and obstruction clearance.

j. Use of checklist.

2. Exhibits instructional knowledge of common errors related to a go-around/rejected landing by describing:

a. Failure to recognize a situation where a go-around/rejected landing is necessary.

b. Hazards of delaying a decision to go-around/rejected landing.

c. Improper power application.

d. Failure to control pitch attitude.

e. Failure to compensate for torque effect.

f. Improper trim procedure.

g. Failure to maintain recommended airspeeds.

h. Improper wing flaps or landing gear retraction procedure, if applicable.

i. Failure to maintain proper track during climb-out.

j. Failure to remain well clear of obstructions and other traffic.

3. Demonstrates and simultaneously explains a go-around/

rejected landing from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a go-around/rejected landing.

Task I: Short-Field (Confined Area (ASES)) Approach and Landing (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a short-field approach and landing by describing:

   a. How to determine landing performance and limitations.

   b. Configuration and trim.

   c. Proper use of pitch and power to maintain desired approach angle.

   d. Obstructions and other hazards which should be considered.

   e. Effect of wind.

f. Selection of touchdown and go-around points.

g. A stabilized approach at the recommended airspeed to the selected touchdown point.

h. Coordination of flight controls.

i. A precise ground track.

j. Timing, judgment, and control procedure during roundout and touchdown.

k. Directional control after touchdown.

l. Use of brakes (ASEL).

m. Use of checklist.

n. After-landing runway incursion avoidance procedures.

2. Exhibits instructional knowledge of common errors related to a short-field approach and landing by describing:

a. Improper use of landing performance data and limitations.

b. Failure to establish approach and landing configuration at appropriate time or in proper sequence.

c. Failure to establish and maintain a stabilized approach.

d. Improper procedure in use of power, wing flaps, and trim.

e. Inappropriate removal of hand from throttle.

f. Improper procedure during roundout and touchdown.

g. Poor directional control after touchdown.

h. Improper use of brakes.

3. Demonstrates and simultaneously explains a short-field approach and landing from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a short-field approach and landing.

Task J: Soft-Field Approach and Landing (ASEL)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM, ACS for Private Pilot, ACS for Commercial Pilot.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a soft-field approach and landing by describing:

   a. How to determine landing performance and limitations.

   b. Configuration and trim.

   c. Obstructions and other hazards which should be considered.

   d. Effect of wind and landing surface.

   e. Selection of a touchdown area.

   f. A stabilized approach at the recommended airspeed to the selected touchdown point.

   g. Coordination of flight controls.

   h. A precise ground track.

   i. Timing, judgment, and control procedure during roundout and touchdown.

j. Touchdown in a nose-high pitch attitude at minimum safe airspeed.

k. Proper use of power.

l. Directional control after touchdown.

m. Use of checklist.

n. After landing runway incursion avoidance procedures.

2. Exhibits instructional knowledge of common errors related to a soft-field approach and landing by describing:

a. Improper use of landing performance data and limitations.

b. Failure to establish approach and landing configuration at appropriate time or in proper sequence.

c. Failure to establish and maintain a stabilized approach.

d. Failure to consider the effect of wind and landing surface.

e. Improper procedure in use of power, wing flaps, and trim.

f. Inappropriate removal of hand from throttle.

g. Improper procedure during roundout and touchdown.

h. Failure to hold back elevator pressure after touchdown.

i. Closing the throttle too soon after touchdown.

j. Poor directional control after touchdown.

k. Improper use of brakes.

3. Demonstrates and simultaneously explains a soft-field approach and landing from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a soft-field approach and landing.

Task K: Power-Off 180° Accuracy Approach and Landing (ASEL)

References: FAA-H-8083-3, FAA-S-8081-12, Commercial Pilot ACS

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a 180° power-off accuracy approach and landing by describing:

   a. Configuration and trim.

   b. Effects of wind and selection of a touchdown area.

   c. The key points in the pattern.

   d. A stabilized approach at the recommended airspeed to the selected touchdown area.

e. Coordination of flight controls.

f. Timing, judgment, and control procedure during roundout and touchdown.

g. Directional control after touchdown.

h. Use of checklist.

i. After landing runway incursion avoidance procedures.

2. Exhibits instructional knowledge of common errors related to a 180° power-off accuracy approach and landing by describing:

a. Failure to establish approach and landing configuration at proper time or in proper sequence.

b. Failure to identify the key points in the pattern.

c. Failure to establish and maintain a stabilized approach.

d. Failure to consider the effect of wind and landing surface.

e. Improper use of power, wing flaps, or trim.

f. Improper procedure during roundout and touchdown.

g. Failure to hold back elevator pressure after touchdown.

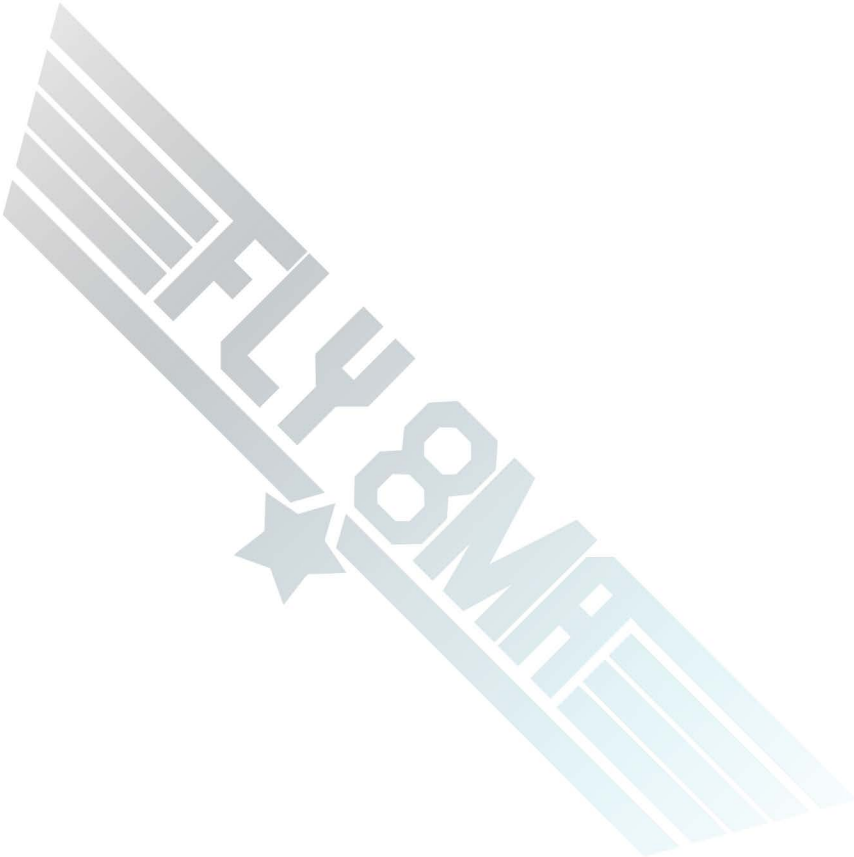
h. Poor directional control after touchdown.

i. Improper use of brakes.

3. Demonstrates and simultaneously explains a 180° power-off accuracy approach and landing from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a 180° power-off accuracy approach and landing.

~~***Task L: Glassy Water Approach and Landing (ASES)***~~ ***N/A***



~~***Task M: Rough-Water Approach and Landing (ASES)***~~ ***N/A***

VIII. Fundamentals of Flight

Note: *The examiner must select at least one Task.*

Task A: Straight-and-Level Flight (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of straight-and-level flight by describing:

   a. Effect and use of flight controls.

   b. The integrated flight instruction method.

   c. Outside and instrument references used for pitch, bank, yaw, and power control; the cross-check and interpretation of those references; and the control procedure used.

   d. Trim procedure.

   e. Methods that can be used to overcome tenseness and overcontrolling.

2. Exhibits instructional knowledge of common errors related to straight-and-level flight by describing:

   a. Failure to cross-check and correctly interpret outside and instrument references.

   b. Application of control movements rather than pressures.

   c. Uncoordinated use of flight controls.

   d. Faulty trim procedure.

3. Demonstrates and simultaneously explains straight-and-level flight from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to straight-and-level flight.

Task B: Level Turns (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of level turns by describing:

a. Effect and use of flight controls.

b. The Integrated Flight Instruction method.

c. Outside and instrument references used for pitch, bank, yaw, and power control; the cross-check and interpretation of those references; and the control procedure used.

d. Trim procedure.

e. Methods that can be used to overcome tenseness and overcontrolling.

2. Exhibits instructional knowledge of common errors related to level turns by describing:

   a. Failure to cross-check and correctly interpret outside and instrument references.

   b. Application of control movements rather than pressures.

   c. Uncoordinated use of flight controls.

   d. Faulty altitude and bank control.

3. Demonstrates and simultaneously explains level turns from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to level turns.

Task C: Straight Climbs and Climbing Turns (ASEL AND ASES)

References: FAA-H-8083-3, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of straight climbs and climbing turns by describing:

   a. Effect and use of flight controls.

   b. Outside and instrument references used for pitch, bank, yaw, and power control; the cross-check and interpretation of those references; and the control procedure used.

   c. Trim procedure.

   d. Methods that can be used to overcome tenseness and overcontrolling.

2. Exhibits instructional knowledge of common errors related to straight climbs and climbing turns by describing:

   a. Failure to cross-check and correctly interpret outside and instrument references.

   b. Application of control movements rather than pressures.

   c. Improper correction for torque effect.

   d. Faulty trim procedure.

3. Demonstrates and simultaneously explains straight climbs and climbing turns from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to straight climbs and climbing turns.

Task D: Straight Descents and Descending Turns (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of straight descents and descending turns by describing:

   a. Effect and use of flight controls.

   b. The Integrated Flight Instruction method.

   c. Outside and instrument references used for pitch, bank, yaw, and power control; the cross-check and interpretation of those references; and the control procedure used.

   d. Trim procedure.

e. Methods that can be used to overcome tenseness and overcontrolling.

2. Exhibits instructional knowledge of common errors related to straight descents and descending turns by describing:

   a. Failure to cross-check and correctly interpret outside and instrument references.

   b. Application of control movements rather than pressures.

   c. Uncoordinated use of flight controls.

   d. Faulty trim procedure.

   e. Failure to clear engine and to use carburetor heat, as appropriate.

3. Demonstrates and simultaneously explains straight descents and descending turns from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to straight descents and descending turns.

IX. Performance Maneuvers

Note: *The examiner must select at least Tasks A or B and C or D.*

Task A: Steep Turns (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of steep turns by describing:

   a. Relationship of bank angle, load factor, and stalling speed.

   b. Overbanking tendency.

   c. Torque effect in right and left turns.

   d. Selection of a suitable altitude.

   e. Orientation, division of attention, and planning.

f. Entry and rollout procedure.

g. Coordination of flight and power controls.

h. Altitude, bank, and power control during the turn.

i. Proper recovery to straight-and-level flight.

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

   a. Improper pitch, bank, and power coordination during entry and rollout.

b. Uncoordinated use of flight controls.

c. Improper procedure in correcting altitude deviations.

d. Loss of orientation.

3. Demonstrates and simultaneously explains steep turns from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to steep turns.

Task B: Steep Spirals (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of steep spirals by describing:

   a. The purpose of steep spirals and their relationship to emergency landing procedures.

   b. Selection of entry altitude.

c. Entry airspeed and power setting.

d. Selection of a proper ground reference point.

e. Division of attention and planning.

f. Coordination of flight controls.

g. Maintenance of constant radius around selected point.

h. Maintenance of constant airspeed throughout maneuver.

2. Exhibits instructional knowledge of common errors related to steep spiral by describing:

   a. Improper pitch, bank, yaw, and power coordination during entry or completion.

b. Uncoordinated use of flight controls.

c. Improper planning and lack of maintenance of constant airspeed and radius.

d. Failure to stay orientated to the number of turns and the rollout heading.

3. Demonstrates and simultaneously explains a steep spiral from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to steep spirals.

Task C: Chandelles (ASEL and ASES)

References: FAA-H-8083-3; FAA-S-8081-12.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of chandelles by describing:

   a. The purpose of chandelles and their relationship to basic/advanced airmanship skills.

b. Selection of entry altitude.

c. Entry airspeed and power setting.

d. Division of attention and planning.

e. Coordination of flight controls.

f. Pitch and bank attitudes at various points during the maneuver.

g. Proper correction for torque effect in right and left turns.

h. Achievement of maximum performance.

i. Completion procedure.

2. Exhibits instructional knowledge of common errors related to chandelles by describing:

a. Improper pitch, bank, and power coordination during entry or completion.

b. Uncoordinated use of flight controls.

c. Improper planning and timing of pitch and bank attitude changes.

d. Factors related to failure in achieving maximum performance.

e. A stall during the maneuver.

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

4. Analyzes and corrects simulated common errors related to chandelles.

Task D: Lazy Eights (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of lazy eights by describing:

a. The purpose of lazy eights and their relationship to basic/advanced airmanship skills.

b. Selection of entry altitude.

c. Selection of suitable reference points.

d. Entry airspeed and power setting.

e. Entry procedure.

f. Orientation, division of attention, and planning.

g. Coordination of flight controls.

h. Pitch and bank attitudes at key points during the maneuver.

i. Importance of consistent airspeed and altitude control at key points during the maneuver.

j. Proper correction for torque effect in right and left turns.

k. Loop symmetry.

2. Exhibits instructional knowledge of common errors related to lazy eights by describing:

a. Poor selection of reference points.

b. Uncoordinated use of flight controls.

c. Unsymmetrical loops resulting from poorly planned pitch and bank attitude changes.

d. Inconsistent airspeed and altitude at key points.

e. Loss of orientation.

f. Excessive deviation from reference points.

3. Demonstrates and simultaneously explains lazy eights from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to lazy eights.

X. Ground Reference Maneuvers

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

Task A: Rectangular Course (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of a rectangular course by describing:

   a. How to select a suitable altitude.

   b. How to select a suitable ground reference with consideration given to emergency landing areas.

   c. Orientation, division of attention, and planning.

   d. Configuration and airspeed prior to entry.

e. Relationship of a rectangular course to an airport traffic pattern.

f. Wind drifts correction.

g. How to maintain desired altitude, airspeed, and distance from ground reference boundaries.

h. Timing of turn entries and rollouts.

i. Coordination of flight controls.

2. Exhibits instructional knowledge of common errors related to a rectangular course by describing:

   a. Poor planning, orientation, or division of attention.

   b. Uncoordinated use of flight controls.

   c. Improper correction for wind drift.

   d. Failure to maintain selected altitude or airspeed.

   e. Selection of a ground reference where there is no suitable emergency landing area within gliding distance.

3. Demonstrates and simultaneously explains a rectangular course from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a rectangular course.

Task B: S-Turns across a Road (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of S-turns across a road by describing:
    a. The purpose of S-turns across a road and their relationship to basic/advanced airmanship skills.

    b. How to select a suitable altitude.

c. How to select a suitable ground reference line with consideration given to emergency landing areas.

d. Orientation, division of attention, and planning.

e. Configuration and airspeed prior to entry.

f. Entry procedure.

g. Wind drifts correction.

h. Tracking of semicircles of equal radii on either side of the selected ground reference line.

i. How to maintain desired altitude and airspeed.

j. Turn reversal over the ground reference line.

k. Coordination of flight controls.

2. Exhibits instructional knowledge of common errors related to S-turns across a road by describing:

a. Faulty entry procedure.

b. Poor planning, orientation, or division of attention.

c. Uncoordinated use of flight controls.

d. Improper correction for wind drift.

e. An unsymmetrical ground track.

f. Failure to maintain selected altitude or airspeed.

g. Selection of a ground reference line where there is no suitable emergency landing area within gliding distance.

3. Demonstrates and simultaneously explains S-turns across a road from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to S-turns across a road.

Task C: Turns Around a Point (ASEL and ASES)

References: FAA-H-8083-3; FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of turns around a point by describing:

   a. The purpose of turns around a point and their relationship to basic/advanced airmanship skills.

   b. How to select a suitable altitude.

   c. How to select a suitable ground reference point with consideration given to emergency landing areas.

d. Orientation, division of attention, and planning.

e. Configuration and airspeed prior to entry.

f. Entry procedure.

g. Wind drifts correction.

h. How to maintain desired altitude, airspeed, and distance from reference point.

i. Coordination of flight controls.

2. Exhibits instructional knowledge of common errors related to turns around a point by describing:

a. Faulty entry procedure.

b. Poor planning, orientation, or division of attention.

c. Uncoordinated use of flight controls.

d. Improper correction for wind drift.

e. Failure to maintain selected altitude or airspeed.

f. Selection of a ground reference point where there is no suitable emergency landing area within gliding distance.

3. Demonstrates and simultaneously explains turns around a point from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to turns around a point.

Task D: Eights on Pylons (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of eights on pylons by describing:

   a. The purpose of eights on pylons and their relationship to basic/advanced airmanship skills.

b. How to determine the approximate pivotal altitude.

c. How to select suitable pylons with consideration given to emergency landing areas.

d. Orientation, division of attention, and planning.

e. Configuration and airspeed prior to entry.

f. Relationship of groundspeed change to the performance of the maneuver.

g. Pilot's "line-of-sight" reference to the pylon.

h. Entry procedure.

i. Procedure for maintaining “line-of-sight” on the pylon.

j. Proper planning for turn entries and rollouts.

k. How to correct for wind drift between pylons.

l. Coordination of flight controls.

2. Exhibits instructional knowledge of common errors related to eights on pylons by describing:

a. Faulty entry procedure.

b. Poor planning, orientation, and division of attention.

c. Uncoordinated use of flight controls.

d. Use of an improper “line-of-sight” reference.

e. Application of rudder alone to maintain “line-of-sight” on the pylon.

f. Improper planning for turn entries and rollouts.

g. Improper correction for wind drift between pylons.

h. Selection of pylons where there is no suitable emergency landing area within gliding distance.

3. Demonstrates and simultaneously explains eights on pylons from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to eights on pylons.

XI. Slow Flight, Stalls, and Spins

Note: *The examiner must select at least one proficiency stall (Task B or C), at least one demonstration stall (Task D, E, F, or H), and Task G.*

Task A: Maneuvering During Slow Flight (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of maneuvering during slow flight by describing:

   a. Relationship of configuration, weight, center of gravity, maneuvering loads, angle of bank, and power to flight characteristics and controllability.

   b. Relationship of the maneuver to critical flight situations, such as go-around.

c. Performance of the maneuver with selected configurations in straight-and-level flight and level turns.

d. Specified airspeed for the maneuver.

e. Coordination of flight controls.

f. Trim technique.

g. Reestablishment of cruise flight.

2. Exhibits instructional knowledge of common errors related to maneuvering during slow flight by describing:

a. Failure to establish specified configuration.

b. Improper entry technique.

c. Failure to establish and maintain the specified airspeed.

d. Excessive variations of altitude and heading when a constant altitude and heading are specified.

e. Uncoordinated use of flight controls.

f. Improper correction for torque effect.

g. Improper trim technique.

h. Unintentional stalls.

i. Inappropriate removal of hand from throttles.

3. Demonstrates and simultaneously explains maneuvering during slow flight from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to maneuvering during slow flight.

Task B: Power-On Stalls (Proficiency) (ASEL and ASES)

References: AC 61-67; FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations by describing:

   a. Aerodynamics of power-on stalls.

   b. Relationship of various factors such as airplane configuration, weight, center of gravity, load factor, and bank angle to stall speed.

   c. Flight situations where unintentional power-on stalls may occur.

   d. Entry technique and minimum entry altitude.

   e. Performance of power-on stalls in climbing flight

(straight or turning).

f. Coordination of flight controls.

g. Recognition of the first indications of power-on stalls.

h. Recovery technique and minimum recovery altitude.

2. Exhibits instructional knowledge of common errors related to power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations by describing:

a. Failure to establish the specified configuration prior to entry.

b. Improper pitch, heading, yaw, and bank control during straight-ahead stalls.

c. Improper pitch, yaw, and bank control during turning stalls.

d. Rough and/or uncoordinated use of flight controls.

e. Failure to recognize the first indications of a stall.

f. Failure to achieve a stall.

g. Improper torque correction.

h. Poor stall recognition and delayed recovery.

i. Excessive altitude loss or excessive airspeed during recovery.

j. Secondary stall during recovery.

3. Demonstrates and simultaneously explains power-on stalls, in climbing flight (straight or turning), with selected configurations, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to power-on stalls, in climbing flight (straight or turning), with selected configurations.

Task C: Power-Off Stalls (Proficiency) (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations by describing:

   a. Aerodynamics of power-off stalls.

   b. Relationship of various factors, such as airplane configuration, weight, center of gravity, load factor, and bank angle to stall speed.

   c. Flight situations where unintentional power-off stalls

may occur.

d. Entry technique and minimum entry altitude.

e. Performance of power-off stalls in descending flight (straight or turning).

f. Coordination of flight controls.

g. Recognition of the first indications of power-off stalls.

h. Recovery technique and minimum recovery altitude.

2. Exhibits instructional knowledge of common errors related to power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations by describing:

a. Failure to establish the specified configuration prior to entry.

b. Improper pitch, heading, yaw, and bank control during straight-ahead stalls.

c. Improper pitch, yaw, and bank control during turning stalls.

d. Rough and/or uncoordinated use of flight controls.

e. Failure to recognize the first indications of a stall.

f. Failure to achieve a stall.

g. Improper torque correction.

h. Poor stall recognition and delayed recovery.

i. Excessive altitude loss or excessive airspeed during recovery.

j. Secondary stall during recovery.

3. Demonstrates and simultaneously explains power-off stalls, in descending flight (straight or turning), with selected configurations, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to power-off stalls, in descending flight (straight or turning), with selected configurations.

Task D: Cross-controlled Stalls (Demonstration) (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of cross-

controlled stalls, with the landing gear extended by describing:

a. Aerodynamics of cross-controlled stalls.

b. Effects of crossed controls in gliding or reduced airspeed descending turns.

c. Flight situations where unintentional cross-controlled stalls may occur.

d. Entry procedure and minimum entry altitude.

e. Recognition of cross-controlled stalls.
f. Recovery procedure and minimum recovery altitude.

2. Exhibits instructional knowledge of common errors related to cross-controlled stalls, with the landing gear extended by describing:

a. Failure to establish selected configuration prior to entry.

b. Failure to establish a cross-controlled turn and stall condition that will adequately demonstrate the hazards of a cross-controlled stall.

c. Improper or inadequate demonstration of the recognition and recovery from a cross-controlled stall.

d. Failure to present simulated student instruction that emphasizes the hazards of a cross-controlled condition in a gliding or reduced airspeed condition.

3. Demonstrates and simultaneously explains a cross-controlled stall, with the landing gear extended, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to a cross-controlled stall with the landing gear extended.

Task E: Elevator Trim Stalls (Demonstration) (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of elevator trim stalls, in selected landing gear and flap configurations by describing:

   a. Aerodynamics of elevator trims stalls.

   b. Hazards of inadequate control pressures to compensate for thrust, torque, and up-elevator trim during go-around and other related maneuvers.

c. Entry procedure and minimum entry altitude.

d. Recognition of elevator trims stalls.

e. Importance of recovering from an elevator trim stall immediately upon recognition.

2. Exhibits instructional knowledge of common errors related to elevator trim stalls, in selected landing gear and flap configurations by describing:

a. Failure to present simulated student instruction that adequately emphasizes the hazards of poor correction for torque and up-elevator trim during go-around and other maneuvers.

b. Failure to establish selected configuration prior to entry.

c. Improper or inadequate demonstration of the recognition of and the recovery from an elevator trim stall.

3. Demonstrates and simultaneously explains elevator trim stalls, in selected landing gear and flap configurations, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to elevator trim stalls in selected configurations.

Task F: Secondary Stalls (Demonstration) (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of secondary stalls, in selected configurations by describing:

   a. Aerodynamics of secondary stalls.

   b. Flight situations where secondary stalls may occur.

   c. Hazards of secondary stalls during normal stall or spin recovery.

d. Entry procedure and minimum entry altitude.

e. Recognition of a secondary stall.

f. Recovery procedure and minimum recovery altitude.

2. Exhibits instructional knowledge of common errors related to secondary stalls, in selected configurations by describing—

a. Failure to establish selected configuration prior to entry.

b. Improper or inadequate demonstration of the recognition of and recovery from a secondary stall.

c. Failure to present simulated student instruction that adequately emphasizes the hazards of poor procedure in recovering from a primary stall.

3. Demonstrates and simultaneously explains secondary stalls, in selected landing gear and flap configurations, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to secondary stalls in selected configurations.

Task G: Spins (ASEL)

Note: *At the discretion of the examiner, a logbook record attesting applicant instructional competency in spin entries, spins, and spin recoveries may be accepted in lieu of this Task. The flight instructor who conducted the spin instruction must certify the logbook record.*

References: 14 CFR part 2, Type Certificate Data Sheet, AC 61-67, FAA-H-8083-3, POH/AFM.

******This task not included in Audio Files******

Reference FLY8MA Spin Awareness Course

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of spins by describing:

   a. Anxiety factors associated with spin instruction.

   b. Aerodynamics of spins.

   c. Airplanes approved for the spin maneuver based on airworthiness category and type certificate.

   d. Relationship of various factors such as configuration, weight, center of gravity, and control coordination to spins.

   e. Flight situations where unintentional spins may occur.

   f. How to recognize and recover from imminent, unintentional spins.

   g. Entry procedure and minimum entry altitude for intentional spins.

h. Control procedure to maintain a stabilized spin.

i. Orientation during a spin.

j. Recovery procedure and minimum recovery altitude for intentional spins.

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

a. Failure to establish proper configuration prior to spin entry.

b. Failure to achieve and maintain a full stall during spin entry.

c. Failure to close throttle when a spin entry is achieved.

d. Failure to recognize the indications of an imminent, unintentional spin.

e. Improper use of flight controls during spin entry, rotation, or recovery.

f. Disorientation during a spin.

g. Failure to distinguish between a high-speed spiral and a spin.

h. Excessive speed or accelerated stall during recovery.

i. Failure to recover with minimum loss of altitude.

j. Hazards of attempting to spin an airplane not approved for spins.

3. Demonstrates and simultaneously explains a spin (one turn) from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to spins.

Task H: Accelerated Maneuver Stalls (Demonstration) (ASEL and ASES)

Note: *This Task must be completed by oral examination or demonstration at the discretion of the examiner.*

References: FAA-H-8083-3, POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of accelerated maneuver stalls by describing:

   a. Aerodynamics of accelerated maneuver stalls.

   b. Flight situations where accelerated maneuver stalls may occur.

   c. Hazards of accelerated stalls during stall or spin recovery.

   d. Entry procedure and minimum entry altitude.

   e. Recognition of the accelerated stall.

f. Recovery procedure and minimum recovery altitude.

2. Demonstrates and simultaneously explains accelerated maneuver stall from an instructional standpoint.

3. Exhibits instructional knowledge of common errors related to accelerated maneuver stalls by describing:

   a. Failure to establish proper configuration prior to entry.

   b. Improper or inadequate demonstration of the recognition of and recovery from an accelerated maneuver stall.

   c. Failure to present simulated student instruction that adequately emphasizes the hazards of poor procedures in recovering from an accelerated stall.

4. Analyzes and corrects simulated common errors related to accelerated stalls.

XII. Basic Instrument Maneuvers

Note: *The examiner must select at least one Task.*

Task A: Straight-and-Level Flight (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-15, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of straight-and-level flight solely by reference to instruments by describing:

   a. Instrument cross-check, instrument interpretation, and aircraft control.

   b. Instruments used for pitch, bank, and power control, and how those instruments are used to maintain altitude, heading, and airspeed.

   c. Trim procedure.

2. Exhibits instructional knowledge of common errors related to straight-and-level flight solely by reference to instruments by describing:

   a. "Fixation," "omission," and "emphasis" errors during instrument cross-check.

   b. Improper instrument interpretation.

c. Improper control applications.

d. Failure to establish proper pitch, bank, or power adjustments during altitude, heading, or airspeed corrections.

e. Faulty trim procedure.

3. Demonstrates and simultaneously explains straight-and-level flight, solely by reference to instruments, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to straight-and-level flight, solely by reference to instruments.

Task B: Constant Airspeed Climbs (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-15, FAA-S-ACS-6. **Objective:** To determine that the applicant:

1. Exhibits instructional knowledge of the elements of straight and turning, constant airspeed climbs, solely by reference to instruments by describing:

   a. Instrument cross-check, instrument interpretation, and aircraft control.

b. instruments used for pitch, bank, and power control during entry, during the climb, and during level off, and how those instruments are used to maintain climb heading and airspeed.

c. Trim procedure.

2. Exhibits instructional knowledge of common errors related to straight and turning, constant airspeed climbs, solely by reference to instruments by describing:

a. “Fixation,” “omission,” and “emphasis” errors during instrument cross-check.

b. Improper instrument interpretation.

c. Improper control applications.

d. Failure to establish proper pitch, bank, or power adjustments during heading and airspeed corrections.

e. Improper entry or level-off procedure.

f. Faulty trim procedure.

3. Demonstrates and simultaneously explains a straight and turning, constant airspeed climb, solely by reference to instruments, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to straight and turning, constant airspeed climbs, solely by reference to instruments.

Task C: Constant Airspeed Descents (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-15, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of straight and turning, constant airspeed descents, solely by reference to instruments by describing:

   a. Instrument cross-check, instrument interpretation, and aircraft control.

   b. instruments used for pitch, bank, and power control during entry, during the descent, and during level off, and how those instruments are used to maintain descent heading and airspeed.

c. Trim procedure.

2. Exhibits instructional knowledge of common errors related to straight and turning, constant airspeed descents, solely by reference to instruments by describing:

   a. “Fixation,” “omission,” and “emphasis” errors during instrument cross-check.

   b. Improper instrument interpretation.

   c. Improper control applications.

   d. Failure to establish proper pitch, bank, or power adjustments during heading and airspeed corrections.

   e. Improper entry or level-off procedure.

   f. Faulty trim procedure.

3. Demonstrates and simultaneously explains a straight and turning, constant airspeed descent, solely by reference to instruments, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to straight and turning, constant airspeed descents, solely by reference to instruments.

Task D: Turns to Headings (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-15, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of turns to headings, solely by reference to instruments by describing:

   a. Instrument cross-check, instrument interpretation, and aircraft control.

   b. Instruments used for pitch, bank, and power control during turn entry, during the turn, and during the turn rollout, and how those instruments are used.

   c. Trim procedure.

2. Exhibits instructional knowledge of common errors related to turns to headings, solely by reference to instruments by describing:

   a. “Fixation,” “omission,” and “emphasis” errors during instrument cross-check.

b. Improper instrument interpretation.

c. Improper control applications.

d. Failure to establish proper pitch, bank, and power adjustments during altitude, bank, and airspeed corrections.

e. Improper entry or rollout procedure.

f. Faulty trim procedure.

3. Demonstrates and simultaneously explains a turn to a heading, solely by reference to instruments, from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to turns to headings, solely by reference to instruments.

Task E: Recovery from Unusual Flight Attitudes (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-15, FAA-S-ACS-6.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of recovery from unusual flight attitudes by describing:

   a. Conditions and situations that may result in unusual flight attitudes.

   b. The two basic unusual flight attitudes—nose-high (climbing turn) and nose-low (diving spiral).

c. How unusual flight attitudes are recognized.

d. Control sequence for recovery from a nose-high attitude and the reasons for that sequence.

e. Control sequence for recovery from a nose-low attitude and the reasons for that sequence.

f. Reasons why the controls should be coordinated during unusual flight attitude recoveries.

2. Exhibits instructional knowledge of common errors related to recovery from unusual flight attitudes by describing:

a. Failure to recognize an unusual flight attitude.

b. Consequences of attempting to recover from an unusual flight attitude by “feel” rather than by instrument indications.

c. Inappropriate control applications during recovery.

d. Failure to recognize from instrument indications when the airplane is passing through a level flight attitude.

3. Demonstrates and simultaneously explains a recovery from nose-high and a nose-low flight attitude from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to recovery from unusual flight attitudes.

XIII. Emergency Operations

Note: *The examiner must select at least Tasks A and B.*

Task A: Emergency Approach and Landing (Simulated) (ASEL and ASES)

Note: *The examiner must NOT simulate a power failure by placing the fuel selector in the "off" position or by placing the mixture control in the "idle-cutoff" position. No simulated emergency approach is to be continued below 500 feet AGL, unless over an area where a safe landing can be accomplished in compliance with 14 CFR part 91, section 91.119.*

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements related to an emergency approach and landing by describing:

   a. Prompt establishment of the best glide airspeed and the recommended configuration.

   b. How to select a suitable emergency landing area.

   c. Planning and execution of approach to the selected landing area.

   d. Use of emergency checklist.

e. Importance of attempting to determine reason for the malfunction.

f. Importance of dividing attention between flying the approach and accomplishing emergency checklist.

g. Procedures that can be used to compensate for under-shooting or overshooting selected emergency landing area.

2. Exhibits instructional knowledge of common errors related to an emergency approach and landing by describing:

a. Improper airspeed control.

b. Poor judgment in the selection of an emergency landing area.

c. Failure to estimate the approximate wind speed and direction.

d. Failure to fly the most suitable pattern for existing situation.

e. Failure to accomplish the emergency checklist.

f. Undershooting or overshooting selected emergency landing area.

3. Demonstrates and simultaneously explains an emergency approach with a simulated engine failure from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to an emergency approach with a simulated engine failure.

Task B: Systems and Equipment Malfunctions (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

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

Objective: To determine that the applicant exhibits instructional knowledge of at least five (5) of the equipment malfunctions, appropriate to the airplane used for the practical test by describing recommended pilot action for:

1. Smoke, fire, or both, during ground or flight operations.

2. Rough running engine or partial power loss.

3. Loss of engine oil pressure.

4. Fuel starvation.

5. Engine overheat.

6. Hydraulic malfunction.

7. Electrical malfunction.

8. Carburetor or induction icing.

9. Door or window opening in flight.

10. Inoperative or “runaway” trim.

11. Landing gear or flap malfunction.

12. Pressurization malfunction.

Task C: Emergency Equipment and Survival Gear (ASEL

and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6, POH/AFM. Reference Private Pilot & Commercial Pilot ACS

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

1. Equipment and gear appropriate for operation in various climates, over various types of terrain, and over water.

2. Purpose, method of operation or use, servicing and storage of appropriate equipment.

Task D: Emergency Descent (ASEL and ASES)

References: FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM. Emergency Descent in Private/Commercial Pilot ACS

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to emergency descents appropriate to the airplane flown by:

1. Exhibiting instructional knowledge of the elements related to an emergency descent by describing:

   a. Situations that require an emergency descent.

   b. Proper use of the prescribed emergency checklist to verify accomplishment of procedures before initiating and during the emergency descent.

   c. Proper use of clearing procedures before initiating and during the emergency descent.

   d. Procedures for recovering from an emergency descent.

e. Manufacturer's procedures.

2. Exhibiting instructional knowledge of common errors related to an emergency descent by describing:

a. The consequences of failing to identify reason for executing an emergency descent.

b. Improper use of the prescribed emergency checklist to verify accomplishment of procedures for initiating the emergency descent.

c. Improper use of clearing procedures for initiating the emergency descent.

d. Improper procedures for recovering from an emergency descent.

3. Demonstrates and simultaneously explains emergency descents from an instructional standpoint.

4. Analyzes and corrects simulated common errors related to emergency descents.

XIV. Postflight Procedures

Note: *The examiner must select Task A and, for ASES applicants, at least one other Task.*

Task A: Postflight Procedures (ASEL and ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant:

1. Exhibits instructional knowledge of the elements of Postflight procedures by describing:

   a. Parking procedure (ASEL).

   b. Engine shutdown and securing cockpit.

   c. Deplaning passengers.

   d. Securing airplane.

   e. Postflight inspection.

   f. Refueling.

2. Exhibits instructional knowledge of common errors related to postflight procedures by describing:

   a. Hazards resulting from failure to follow recommended procedures.

   b. poor planning, improper procedure, or faulty judgment in performance of postflight procedures.

~~***Task B: Anchoring (ASES)***~~ ***N/A***

~~***Task C: Docking and Mooring (ASES)***~~ ***N/A***

~~***Task D: Beaching (ASES)***~~ ***N/A***

~~***Task E: Ramping (ASES)***~~ ***N/A***