U.S. Department of Transportation

Federal Aviation Administration

FAA-S-ACS-6B
(with Change 1)

Private Pilot – Airplane

Airman Certification Standards

Summarized for Single Engine Land

June 2018

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I. Preflight Preparation

Task	***A. Pilot Qualifications***
References	14 CFR parts 61, 68, 91; FAA-H-8083-2, FAA-H-8083-25; AC 68-1
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with airman and medical certificates including privileges, limitations, currency, and operating as pilot-in-command (PIC) as a private pilot.
Knowledge	The applicant demonstrates understanding of:
PA.I.A.K1	Certification requirements, recent flight experience, and recordkeeping.
PA.I.A.K2	Privileges and limitations.
PA.I.A.K3	Medical certificates: class, expiration, privileges, temporary disqualifications.
PA.I.A.K4	Documents required to exercise private pilot privileges.
PA.I.A.K5	Part 68 BasicMed privileges and limitations.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.A.R1	Failure to distinguish proficiency versus currency.
PA.I.A.R2	Flying unfamiliar airplanes, or operating with unfamiliar flight display systems, and avionics.
Skills	The applicant demonstrates the ability to:
PA.I.A.S1	Apply requirements to act as PIC under Visual Flight Rules (VFR) in a scenario given by the evaluator.

I. Preflight Preparation

Task	***B. Airworthiness Requirements***
References	14 CFR parts 39, 43, 91; FAA-H-8083-2, FAA-H-8083-25
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with airworthiness requirements, including airplane certificates.
Knowledge	The applicant demonstrates understanding of:
PA.I.B.K1	General airworthiness requirements and compliance for airplanes, including:
PA.I.B.K1a	a. Certificate location and expiration dates
PA.I.B.K1b	b. Required inspections and airplane logbook documentation
PA.I.B.K1c	c. Airworthiness Directives and Special Airworthiness Information Bulletins
PA.I.B.K1d	d. Purpose and procedure for obtaining a special flight permit
PA.I.B.K2	Pilot-performed preventive maintenance.
PA.I.B.K3	Equipment requirements for day and night VFR flight, to include:
PA.I.B.K3a	a. Flying with inoperative equipment
PA.I.B.K3b	b. Using an approved Minimum Equipment List (MEL)
PA.I.B.K3c	c. Kinds of Operation Equipment List (KOEL)
PA.I.B.K3d	d. Required discrepancy records or placards
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.B.R1	Inoperative equipment discovered prior to flight.
Skills	The applicant demonstrates the ability to:
PA.I.B.S1	Locate and describe airplane airworthiness and registration information.
PA.I.B.S2	Determine the airplane is airworthy in a scenario given by the evaluator.
PA.I.B.S3	Apply appropriate procedures for operating with inoperative equipment in a scenario given by the evaluator.

I. Preflight Preparation

Task	***C. Weather Information***
References	14 CFR part 91; FAA-H-8083-25; AC 00-6, AC 00-45, AC 00-54; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with weather information for a flight under VFR.
Knowledge	The applicant demonstrates understanding of:
PA.I.C.K1	Sources of weather data (e.g., National Weather Service, Flight Service) for flight planning purposes.
PA.I.C.K2	Acceptable weather products and resources required for preflight planning, current and forecast weather for departure, en route, and arrival phases of flight.
PA.I.C.K3	Meteorology applicable to the departure, en route, alternate, and destination under VFR in Visual Meteorological Conditions (VMC) to include expected climate and hazardous conditions such as:
PA.I.C.K3a	a. Atmospheric composition and stability
PA.I.C.K3b	b. Wind (e.g., crosswind, tailwind, windshear, mountain wave, etc.)
PA.I.C.K3c	c. Temperature
PA.I.C.K3d	d. Moisture/precipitation
PA.I.C.K3e	e. Weather system formation, including air masses and fronts
PA.I.C.K3f	f. Clouds
PA.I.C.K3g	g. Turbulence
PA.I.C.K3h	h. Thunderstorms and microbursts
PA.I.C.K3i	i. Icing and freezing level information
PA.I.C.K3j	j. Fog/mist
PA.I.C.K3k	k. Frost
PA.I.C.K3l	l. Obstructions to visibility (e.g., smoke, haze, volcanic ash, etc.)
PA.I.C.K4	Flight deck displays of digital weather and aeronautical information.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.C.R1	Factors involved in making the go/no-go and continue/divert decisions, to include:
PA.I.C.R1a	a. Circumstances that would make diversion prudent
PA.I.C.R1b	b. Personal weather minimums
PA.I.C.R1c	c. Hazardous weather conditions to include known or forecast icing or turbulence aloft
PA.I.C.R2	Limitations of:
PA.I.C.R2a	a. Onboard weather equipment
PA.I.C.R2b	b. Aviation weather reports and forecasts
PA.I.C.R2c	c. Inflight weather resources
Skills	The applicant demonstrates the ability to:
PA.I.C.S1	Use available aviation weather resources to obtain an adequate weather briefing.
PA.I.C.S2	Analyze the implications of at least three of the conditions listed in K3a through K3l above, using actual weather or weather conditions in a scenario provided by the evaluator.
PA.I.C.S3	Correlate weather information to make a competent go/no-go decision.

I. Preflight Preparation

Task	***D. Cross-Country Flight Planning***
References	14 CFR part 91; FAA-H-8083-2, FAA-H-8083-25; Navigation Charts; Chart Supplements; AIM; NOTAMs
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with cross-country flights and VFR flight planning.
Knowledge	The applicant demonstrates understanding of:
PA.I.D.K1	Route planning, including consideration of different classes and special use airspace (SUA) and selection of appropriate and available navigation/communication systems and facilities.
PA.I.D.K2	Altitude selection accounting for terrain and obstacles, glide distance of the airplane, VFR cruising altitudes, and the effect of wind.
PA.I.D.K3	Calculating:
PA.I.D.K3a	a. Time, climb and descent rates, course, distance, heading, true airspeed, and groundspeed
PA.I.D.K3b	b. Estimated time of arrival to include conversion to universal coordinated time (UTC)
PA.I.D.K3c	c. Fuel requirements, to include reserve
PA.I.D.K4	Elements of a VFR flight plan.
PA.I.D.K5	Procedures for activating and closing a VFR flight plan.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.D.R1	Pilot.
PA.I.D.R2	Aircraft.
PA.I.D.R3	Environment (e.g., weather, airports, airspace, terrain, obstacles).
PA.I.D.R4	External pressures.
PA.I.D.R5	Limitations of air traffic control (ATC) services.
PA.I.D.R6	Improper fuel planning.
Skills	The applicant demonstrates the ability to:
PA.I.D.S1	Prepare, present, and explain a cross-country flight plan assigned by the evaluator including a risk analysis based on real-time weather, to the first fuel stop.
PA.I.D.S2	Apply pertinent information from appropriate and current aeronautical charts, Chart Supplements; NOTAMs relative to airport, runway and taxiway closures; and other flight publications.
PA.I.D.S3	Create a navigation plan and simulate filing a VFR flight plan.
PA.I.D.S4	Recalculate fuel reserves based on a scenario provided by the evaluator.

I. Preflight Preparation

Task	***E. National Airspace System***
References	14 CFR parts 71, 91, 93; FAA-H-8083-2; Navigation Charts; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with the National Airspace System (NAS) operating under VFR as a private pilot.
Knowledge	The applicant demonstrates understanding of:
PA.I.E.K1	Types of airspace/airspace classes and associated requirements and limitations.
PA.I.E.K2	Charting symbology.
PA.I.E.K3	Special use airspace (SUA), special flight rules areas (SFRA), temporary flight restrictions (TFR), and other airspace areas.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.E.R1	Various classes and types of airspace.
Skills	The applicant demonstrates the ability to:
PA.I.E.S1	Identify and comply with the requirements for basic VFR weather minimums and flying in particular classes of airspace.
PA.I.E.S2	Correctly identify airspace and operate in accordance with associated communication and equipment requirements.
PA.I.E.S3	Identify the requirements for operating in SUA or within a TFR. Identify and comply with SATR and SFRA operations, if applicable.

I. Preflight Preparation

Task	***F. Performance and Limitations***
References	FAA-H-8083-1, FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with operating an airplane safely within the parameters of its performance capabilities and limitations.
Knowledge	The applicant demonstrates understanding of:
PA.I.F.K1	Elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance.
PA.I.F.K2	Factors affecting performance, to include:
PA.I.F.K2a	a. Atmospheric conditions
PA.I.F.K2b	b. Pilot technique
PA.I.F.K2c	c. Airplane configuration
PA.I.F.K2d	d. Airport environment
PA.I.F.K2e	e. Loading (e.g., center of gravity)
PA.I.F.K2f	f. Weight and balance
PA.I.F.K3	Aerodynamics.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.F.R1	Inaccurate use of manufacturer's performance charts, tables, and data.
PA.I.F.R2	Exceeding airplane limitations.
PA.I.F.R3	Possible differences between calculated performance and actual performance.
Skills	The applicant demonstrates the ability to:
PA.I.F.S1	Compute the weight and balance, correct out-of-center of gravity (CG) loading errors and determine if the weight and balance remains within limits during all phases of flight.
PA.I.F.S2	Utilize the appropriate airplane manufacturer's approved performance charts, tables, and data.

I. Preflight Preparation

Task	***G. Operation of Systems***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23, FAA-H-8083-25; POH/AFM.
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with the safe operation of systems on the airplane provided for the flight test.
Knowledge	The applicant demonstrates understanding of:
PA.I.G.K1	Airplane systems, to include: ***Note:*** *If K1 is selected, the evaluator must assess the applicant's knowledge of at least three of the following sub-elements.*
PA.I.G.K1a	a. Primary flight controls
PA.I.G.K1b	b. Secondary flight controls
PA.I.G.K1c	c. Powerplant and propeller
PA.I.G.K1d	d. Landing gear
PA.I.G.K1e	e. Fuel, oil, and hydraulic
PA.I.G.K1f	f. Electrical
PA.I.G.K1g	g. Avionics
PA.I.G.K1h	h. Pitot-static, vacuum/pressure, and associated flight instruments
PA.I.G.K1i	i. Environmental
PA.I.G.K1j	j. Deicing and anti-icing
PA.I.G.K1k	k. Water rudders (ASES, AMES)
PA.I.G.K1l	l. Oxygen system
PA.I.G.K2	Indications of and procedures for managing system abnormalities or failures.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.G.R1	Failure to detect system malfunctions or failures.
PA.I.G.R2	Improper management of a system failure.
PA.I.G.R3	Failure to monitor and manage automated systems.
Skills	The applicant demonstrates the ability to:
PA.I.G.S1	Operate at least three of the systems listed in K1a through K1l above appropriately.
PA.I.G.S2	Use appropriate checklists properly.

I. Preflight Preparation

Task	***H. Human Factors***
References	FAA-H-8083-2, FAA-H-8083-25; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with personal health, flight physiology, aeromedical and human factors, as it relates to safety of flight. ***Note:*** *See Appendix 6: Safety of Flight.*
Knowledge	The applicant demonstrates understanding of:
PA.I.H.K1	The symptoms (as applicable), recognition, causes, effects, and corrective actions associated with aeromedical and physiological issues including:
PA.I.H.K1a	a. Hypoxia
PA.I.H.K1b	b. Hyperventilation
PA.I.H.K1c	c. Middle ear and sinus problems
PA.I.H.K1d	d. Spatial disorientation
PA.I.H.K1e	e. Motion sickness
PA.I.H.K1f	f. Carbon monoxide poisoning
PA.I.H.K1g	g. Stress
PA.I.H.K1h	h. Fatigue
PA.I.H.K1i	i. Dehydration and nutrition
PA.I.H.K1j	j. Hypothermia
PA.I.H.K1k	k. Optical illusions
PA.I.H.K1l	l. Dissolved nitrogen in the bloodstream after scuba dives
PA.I.H.K2	Regulations regarding use of alcohol and drugs.
PA.I.H.K3	Effects of alcohol, drugs, and over-the-counter medications.
PA.I.H.K4	Aeronautical Decision-Making (ADM).
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks encompassing:
PA.I.H.R1	Aeromedical and physiological issues.
PA.I.H.R2	Hazardous attitudes.
PA.I.H.R3	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.I.H.S1	Associate the symptoms and effects for at least three of the conditions listed in K1a through K1l above with the cause(s) and corrective action(s).
PA.I.H.S2	Perform self-assessment, including fitness for flight and personal minimums, for actual flight or a scenario given by the evaluator.

II. Preflight Procedures

Task	***A. Preflight Assessment***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23; POH/AFM; AC 00-6
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with preparing for safe flight.
Knowledge	The applicant demonstrates understanding of:
PA.II.A.K1	Pilot self-assessment.
PA.II.A.K2	Determining that the airplane to be used is appropriate and airworthy.
PA.II.A.K3	Airplane preflight inspection including:
PA.II.A.K3a	a. Which items must be inspected
PA.II.A.K3b	b. The reasons for checking each item
PA.II.A.K3c	c. How to detect possible defects
PA.II.A.K3d	d. The associated regulations
PA.II.A.K4	Environmental factors including weather, terrain, route selection, and obstructions.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.II.A.R1	Pilot.
PA.II.A.R2	Aircraft.
PA.II.A.R3	Environment (e.g., weather, airports, airspace, terrain, obstacles).
PA.II.A.R4	External pressures.
PA.II.A.R5	Aviation security concerns.
Skills	The applicant demonstrates the ability to:
PA.II.A.S1	Inspect the airplane with reference to an appropriate checklist.
PA.II.A.S2	Verify the airplane is in condition for safe flight and conforms to its type design.

II. Preflight Procedures

Task	***B. Flight Deck Management***
References	FAA-H-8083-2, FAA-H-8083-3; AC 120-71; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with safe flight deck management practices.
Knowledge	The applicant demonstrates understanding of:
PA.II.B.K1	Passenger briefing requirements, to include operation and required use of safety restraint systems.
PA.II.B.K2	Use of appropriate checklists.
PA.II.B.K3	Requirements for current and appropriate navigation data.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.II.B.R1	Improper use of systems or equipment, to include automation and portable electronic devices.
PA.II.B.R2	Flying with unresolved discrepancies.
Skills	The applicant demonstrates the ability to:
PA.II.B.S1	Secure all items in the flight deck and cabin.
PA.II.B.S2	Conduct an appropriate pre-takeoff briefing, to include identifying the PIC, use of safety belts, shoulder harnesses, doors, sterile flight deck, and emergency procedures.
PA.II.B.S3	Program and manage the airplane’s automation properly.

II. Preflight Procedures

Task	***C. Engine Starting***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with recommended engine starting procedures.
Knowledge	The applicant demonstrates understanding of:
PA.II.C.K1	Starting under various conditions.
PA.II.C.K2	Starting the engine(s) by use of external power.
PA.II.C.K3	Engine limitations as they relate to starting.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.II.C.R1	Propeller safety.
Skills	The applicant demonstrates the ability to:
PA.II.C.S1	Position the airplane properly considering structures, other aircraft, wind, and the safety of nearby persons and property.
PA.II.C.S2	Complete the appropriate checklist.

II. Preflight Procedures

Task	***D. Taxiing (ASEL, AMEL)***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25; POH/AFM; AC 91-73; Chart Supplements; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with safe taxi operations, including runway incursion avoidance.
Knowledge	The applicant demonstrates understanding of:
PA.II.D.K1	Current airport aeronautical references and information resources such as the Chart Supplement, airport diagram, and NOTAMS.
PA.II.D.K2	Taxi instructions/clearances.
PA.II.D.K3	Airport markings, signs, and lights.
PA.II.D.K4	Visual indicators for wind.
PA.II.D.K5	Aircraft lighting.
PA.II.D.K6	Procedures for:
PA.II.D.K6a	a. Appropriate flight deck activities prior to taxi, including route planning and identifying the location of Hot Spots
PA.II.D.K6b	b. Radio communications at towered and nontowered airports
PA.II.D.K6c	c. Entering or crossing runways
PA.II.D.K6d	d. Night taxi operations
PA.II.D.K6e	e. Low visibility taxi operations
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.II.D.R1	Inappropriate activities and distractions.
PA.II.D.R2	Confirmation or expectation bias as related to taxi instructions.
PA.II.D.R3	A taxi route or departure runway change.
Skills	The applicant demonstrates the ability to:
PA.II.D.S1	Receive and correctly read back clearances/instructions, if applicable.
PA.II.D.S2	Use an airport diagram or taxi chart during taxi, if published, and maintain situational awareness.
PA.II.D.S3	Position the flight controls for the existing wind.
PA.II.D.S4	Complete the appropriate checklist.
PA.II.D.S5	Perform a brake check immediately after the airplane begins moving.
PA.II.D.S6	Maintain positive control of the airplane during ground operations by controlling direction and speed without excessive use of brakes.
PA.II.D.S7	Comply with airport/taxiway markings, signals, and ATC clearances and instructions.
PA.II.D.S8	Position the airplane properly relative to hold lines.

II. Preflight Procedures

Task	***F. Before Takeoff Check***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with the before takeoff check.
Knowledge	The applicant demonstrates understanding of:
PA.II.F.K1	Purpose of pre-takeoff checklist items including:
PA.II.F.K1a	a. Reasons for checking each item
PA.II.F.K1b	b. Detecting malfunctions
PA.II.F.K1c	c. Ensuring the airplane is in safe operating condition as recommended by the manufacturer
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.II.F.R1	Division of attention while conducting pre-flight checks.
PA.II.F.R2	Unexpected runway changes by ATC.
PA.II.F.R3	Wake turbulence.
PA.II.F.R4	A powerplant failure during takeoff or other malfunction considering operational factors such as airplane characteristics, runway/takeoff path length, surface conditions, environmental conditions, and obstructions.
Skills	The applicant demonstrates the ability to:
PA.II.F.S1	Review takeoff performance.
PA.II.F.S2	Complete the appropriate checklist.
PA.II.F.S3	Position the airplane appropriately considering other aircraft, vessels, and wind.
PA.II.F.S4	Divide attention inside and outside the flight deck.
PA.II.F.S5	Verify that engine parameters and airplane configuration are suitable.

III. Airport and Seaplane Base Operations

Task	***A. Communications, Light Signals, and Runway Lighting Systems***
References	14 CFR part 91; FAA-H-8083-2, FAA-H-8083-25; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with normal and emergency radio communications, ATC light signals, and runway lighting systems to conduct safe airport operations.
Knowledge	The applicant demonstrates understanding of:
PA.III.A.K1	How to obtain proper radio frequencies.
PA.III.A.K2	Proper radio communication procedures and ATC phraseology.
PA.III.A.K3	ATC light signal recognition.
PA.III.A.K4	Appropriate use of transponders.
PA.III.A.K5	Lost communication procedures.
PA.III.A.K6	Equipment issues that could cause loss of communication.
PA.III.A.K7	Radar assistance.
PA.III.A.K8	National Transportation Safety Board (NTSB) accident/incident reporting.
PA.III.A.K9	Runway Status Lighting Systems.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.III.A.R1	Poor communication.
PA.III.A.R2	Failure to recognize and declare an emergency.
PA.III.A.R3	Confirmation or expectation bias.
Skills	The applicant demonstrates the ability to:
PA.III.A.S1	Select appropriate frequencies.
PA.III.A.S2	Transmit using phraseology and procedures as specified in the AIM.
PA.III.A.S3	Acknowledge radio communications and comply with instructions.

III. Airport and Seaplane Base Operations

Task	***B. Traffic Patterns***
References	14 CFR part 91; FAA-H-8083-2, FAA-H-8083-25; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with traffic patterns.
Knowledge	The applicant demonstrates understanding of:
PA.III.B.K1	Towered and nontowered airport operations.
PA.III.B.K2	Runway selection for the current conditions.
PA.III.B.K3	Right-of-way rules.
PA.III.B.K4	Use of automated weather and airport information.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.III.B.R1	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.III.B.R2	Distractions, loss of situational awareness, or improper task management.
PA.III.B.R3	Wake turbulence or windshear.
Skills	The applicant demonstrates the ability to:
PA.III.B.S1	Identify and interpret airport/seaplane base runways, taxiways, markings, signs, and lighting.
PA.III.B.S2	Comply with recommended traffic pattern procedures.
PA.III.B.S3	Correct for wind drift to maintain the proper ground track.
PA.III.B.S4	Maintain orientation with the runway/landing area in use.
PA.III.B.S5	Maintain traffic pattern altitude, ±100 feet, and the appropriate airspeed, ±10 knots.
PA.III.B.S6	Maintain situational awareness and proper spacing from other aircraft in the traffic pattern.

IV. Takeoffs, Landings, and Go-Arounds

Task	***A. Normal Takeoff and Climb***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a normal takeoff, climb operations, and rejected takeoff procedures. ***Note:*** *If a crosswind condition does not exist, the applicant's knowledge of crosswind elements must be evaluated through oral testing.*
Knowledge	The applicant demonstrates understanding of:
PA.IV.A.K1	Effects of atmospheric conditions, including wind, on takeoff and climb performance.
PA.IV.A.K2	V_X and V_Y.
PA.IV.A.K3	Appropriate airplane configuration.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.A.R1	Selection of runway based on pilot capability, airplane performance and limitations, available distance, and wind.
PA.IV.A.R2	Effects of:
PA.IV.A.R2a	a. Crosswind
PA.IV.A.R2b	b. Windshear
PA.IV.A.R2c	c. Tailwind
PA.IV.A.R2d	d. Wake turbulence
PA.IV.A.R2e	e. Runway surface/condition
PA.IV.A.R3	Abnormal operations, to include planning for:
PA.IV.A.R3a	a. Rejected takeoff
PA.IV.A.R3b	b. Engine failure in takeoff/climb phase of flight
PA.IV.A.R4	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.
PA.IV.A.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.A.R6	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IV.A.S1	Complete the appropriate checklist.
PA.IV.A.S2	Make radio calls as appropriate.
PA.IV.A.S3	Verify assigned/correct runway.
PA.IV.A.S4	Ascertain wind direction with or without visible wind direction indicators.
PA.IV.A.S5	Position the flight controls for the existing wind.
PA.IV.A.S6	Clear the area; taxi into takeoff position and align the airplane on the runway centerline (ASEL, AMEL) or takeoff path (ASES, AMES).
PA.IV.A.S7	Confirm takeoff power and proper engine and flight instrument indications prior to rotation (ASEL, AMEL).
PA.IV.A.S8	Avoid excessive water spray on the propeller(s) (ASES, AMES).
PA.IV.A.S9	Rotate and lift off at the recommended airspeed and accelerate to V_Y.
PA.IV.A.S10	Retract the water rudders, as appropriate, establish and maintain the most efficient planing/liftoff attitude, and correct for porpoising and skipping (ASES, AMES).
PA.IV.A.S11	Establish a pitch attitude to maintain the manufacturer's recommended speed or V_Y, +10/-5 knots.
PA.IV.A.S12	Configure the airplane in accordance with manufacturer's guidance.
PA.IV.A.S13	Maintain V_Y +10/-5 knots to a safe maneuvering altitude.
PA.IV.A.S14	Maintain directional control and proper wind-drift correction throughout takeoff and climb.
PA.IV.A.S15	Comply with noise abatement procedures.

IV. Takeoffs, Landings, and Go-Arounds

Task	***B. Normal Approach and Landing***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a normal approach and landing with emphasis on proper use of flight controls. ***Note:*** *If a crosswind condition does not exist, the applicant's knowledge of crosswind elements must be evaluated through oral testing.*
Knowledge	The applicant demonstrates understanding of:
PA.IV.B.K1	A stabilized approach, to include energy management concepts.
PA.IV.B.K2	Effects of atmospheric conditions, including wind, on approach and landing performance.
PA.IV.B.K3	Wind correction techniques on approach and landing.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.B.R1	Selection of runway or approach path and touchdown area based on pilot capability, airplane performance and limitations, available distance, and wind.
PA.IV.B.R2	Effects of:
PA.IV.B.R2a	a. Crosswind
PA.IV.B.R2b	b. Windshear
PA.IV.B.R2c	c. Tailwind
PA.IV.B.R2d	d. Wake turbulence
PA.IV.B.R2e	e. Runway surface/condition
PA.IV.B.R3	Planning for:
PA.IV.B.R3a	a. Go-around and rejected landing
PA.IV.B.R3b	b. Land and hold short operations (LAHSO)
PA.IV.B.R4	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.
PA.IV.B.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.B.R6	Distractions, loss of situational awareness, incorrect airport surface approach and landing, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IV.B.S1	Complete the appropriate checklist.
PA.IV.B.S2	Make radio calls as appropriate.
PA.IV.B.S3	Ensure the airplane is aligned with the correct/assigned runway or landing surface.
PA.IV.B.S4	Scan runway or landing surface and the adjoining area for traffic and obstructions.
PA.IV.B.S5	Select and aim for a suitable touchdown point considering the wind, landing surface, and obstructions.
PA.IV.B.S6	Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required to maintain a stabilized approach.
PA.IV.B.S7	Maintain manufacturer's published approach airspeed or in its absence not more than 1.3 V_{SO}, +10/-5 knots with gust factor applied.
PA.IV.B.S8	Maintain directional control and appropriate crosswind correction throughout the approach and landing.
PA.IV.B.S9	Make smooth, timely, and correct control application during round out and touchdown.
PA.IV.B.S10	Touch down at a proper pitch attitude, within 400 feet beyond or on the specified point, with no side drift, and with the airplane's longitudinal axis aligned with and over the runway center/landing path.
PA.IV.B.S11	Execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.
PA.IV.B.S12	Utilize runway incursion avoidance procedures.

IV. Takeoffs, Landings, and Go-Arounds

Task	***C. Soft-Field Takeoff and Climb (ASEL)***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a soft-field takeoff, climb operations, and rejected takeoff procedures.
Knowledge	The applicant demonstrates understanding of:
PA.IV.C.K1	Effects of atmospheric conditions, including wind, on takeoff and climb performance.
PA.IV.C.K2	V_X and V_Y.
PA.IV.C.K3	Appropriate airplane configuration.
PA.IV.C.K4	Ground effect.
PA.IV.C.K5	Importance of weight transfer from wheels to wings.
PA.IV.C.K6	Left turning tendencies.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.C.R1	Selection of runway based on pilot capability, airplane performance and limitations, available distance, and wind.
PA.IV.C.R2	Effects of:
PA.IV.C.R2a	a. Crosswind
PA.IV.C.R2b	b. Windshear
PA.IV.C.R2c	c. Tailwind
PA.IV.C.R2d	d. Wake turbulence
PA.IV.C.R2e	e. Runway surface/condition
PA.IV.C.R3	Abnormal operations, to include planning for:
PA.IV.C.R3a	a. Rejected takeoff
PA.IV.C.R3b	b. Engine failure in takeoff/climb phase of flight
PA.IV.C.R4	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, persons, and wildlife.
PA.IV.C.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.C.R6	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IV.C.S1	Complete the appropriate checklist.
PA.IV.C.S2	Make radio calls as appropriate.
PA.IV.C.S3	Verify assigned/correct runway.
PA.IV.C.S4	Ascertain wind direction with or without visible wind direction indicators.
PA.IV.C.S5	Position the flight controls for the existing wind.
PA.IV.C.S6	Clear the area, maintain necessary flight control inputs, taxi into takeoff position and align the airplane on the runway centerline without stopping, while advancing the throttle smoothly to takeoff power.
PA.IV.C.S7	Confirm takeoff power and proper engine and flight instrument indications.
PA.IV.C.S8	Establish and maintain a pitch attitude that will transfer the weight of the airplane from the wheels to the wings as rapidly as possible.
PA.IV.C.S9	Lift off at the lowest possible airspeed and remain in ground effect while accelerating to V_X or V_Y, as appropriate.
PA.IV.C.S10	Establish a pitch attitude for V_X or V_Y, as appropriate, and maintain selected airspeed +10/-5 knots during the climb.
PA.IV.C.S11	Configure the airplane after a positive rate of climb has been verified or in accordance with airplane manufacturer's instructions.
PA.IV.C.S12	Maintain V_X or V_Y, as appropriate, +10/-5 knots to a safe maneuvering altitude.
PA.IV.C.S13	Maintain directional control and proper wind-drift correction throughout takeoff and climb.
PA.IV.C.S14	Comply with noise abatement procedures.

IV. Takeoffs, Landings, and Go-Arounds

Task	***D. Soft-Field Approach and Landing (ASEL)***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a soft-field approach and landing with emphasis on proper use and coordination of flight controls.
Knowledge	The applicant demonstrates understanding of:
PA.IV.D.K1	A stabilized approach, to include energy management concepts.
PA.IV.D.K2	Effects of atmospheric conditions, including wind, on approach and landing performance.
PA.IV.D.K3	Wind correction techniques on approach and landing.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.D.R1	Selection of runway based on pilot capability, airplane performance and limitations, available distance, and wind.
PA.IV.D.R2	Effects of:
PA.IV.D.R2a	a. Crosswind
PA.IV.D.R2b	b. Windshear
PA.IV.D.R2c	c. Tailwind
PA.IV.D.R2d	d. Wake turbulence
PA.IV.D.R2e	e. Runway surface/condition
PA.IV.D.R3	Planning for:
PA.IV.D.R3a	a. Go-around and rejected landing
PA.IV.D.R3b	b. Land and hold short operations (LAHSO)
PA.IV.D.R4	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, persons, and wildlife.
PA.IV.D.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.D.R6	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IV.D.S1	Complete the appropriate checklist.
PA.IV.D.S2	Make radio calls as appropriate.
PA.IV.D.S3	Ensure the airplane is aligned with the correct/assigned runway.
PA.IV.D.S4	Scan the landing runway and adjoining area for traffic and obstructions.
PA.IV.D.S5	Select and aim for a suitable touchdown point considering the wind, landing surface, and obstructions.
PA.IV.D.S6	Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required to maintain a stabilized approach.
PA.IV.D.S7	Maintain manufacturer's published approach airspeed or in its absence not more than 1.3 V_{SO}, +10/-5 knots with gust factor applied.
PA.IV.D.S8	Maintain directional control and appropriate crosswind correction throughout the approach and landing.
PA.IV.D.S9	Make smooth, timely, and correct control inputs during the round out and touchdown, and, for tricycle gear airplanes, keep the nose wheel off the surface until loss of elevator effectiveness.
PA.IV.D.S10	Touch down at a proper pitch attitude with minimum sink rate, no side drift, and with the airplane's longitudinal axis aligned with the center of the runway.
PA.IV.D.S11	Maintain elevator as recommended by manufacturer during rollout and exit the "soft" area at a speed that would preclude sinking into the surface.
PA.IV.D.S12	Execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.
PA.IV.D.S13	Maintain proper position of the flight controls and sufficient speed to taxi while on the soft surface.

IV. Takeoffs, Landings, and Go-Arounds

Task	***E. Short-Field Takeoff and Maximum Performance Climb (ASEL, AMEL)***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a short-field takeoff, maximum performance climb operations, and rejected takeoff procedures.
Knowledge	The applicant demonstrates understanding of:
PA.IV.E.K1	Effects of atmospheric conditions, including wind, on takeoff and climb performance.
PA.IV.E.K2	V_X and V_Y.
PA.IV.E.K3	Appropriate airplane configuration.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.E.R1	Selection of runway based on pilot capability, airplane performance and limitations, available distance, and wind.
PA.IV.E.R2	Effects of:
PA.IV.E.R2a	a. Crosswind
PA.IV.E.R2b	b. Windshear
PA.IV.E.R2c	c. Tailwind
PA.IV.E.R2d	d. Wake turbulence
PA.IV.E.R2e	e. Runway surface/condition
PA.IV.E.R3	Abnormal operations, to include planning for:
PA.IV.E.R3a	a. Rejected takeoff
PA.IV.E.R3b	b. Engine failure in takeoff/climb phase of flight
PA.IV.E.R4	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, persons, and wildlife.
PA.IV.E.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.E.R6	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IV.E.S1	Complete the appropriate checklist.
PA.IV.E.S2	Make radio calls as appropriate.
PA.IV.E.S3	Verify assigned/correct runway.
PA.IV.E.S4	Ascertain wind direction with or without visible wind direction indicators.
PA.IV.E.S5	Position the flight controls for the existing wind.
PA.IV.E.S6	Clear the area, taxi into takeoff position and align the airplane on the runway centerline utilizing maximum available takeoff area.
PA.IV.E.S7	Apply brakes while setting engine power to achieve maximum performance.
PA.IV.E.S8	Confirm takeoff power prior to brake release and verify proper engine and flight instrument indications prior to rotation.
PA.IV.E.S9	Rotate and lift off at the recommended airspeed and accelerate to the recommended obstacle clearance airspeed or V_X, +10/-5 knots.
PA.IV.E.S10	Establish a pitch attitude that will maintain the recommended obstacle clearance airspeed or V_X, +10/-5 knots until clearing the obstacle or until the airplane is 50 feet above the surface.
PA.IV.E.S11	Establish a pitch attitude for V_Y and accelerate to V_Y+10/-5 knots after clearing the obstacle or at 50 feet AGL if simulating an obstacle.
PA.IV.E.S12	Configure the airplane in accordance with the manufacturer's guidance after a positive rate of climb has been verified.
PA.IV.E.S13	Maintain V_Y +10/-5 knots to a safe maneuvering altitude.
PA.IV.E.S14	Maintain directional control and proper wind-drift correction throughout takeoff and climb.
PA.IV.E.S15	Comply with noise abatement procedures.

IV. Takeoffs, Landings, and Go-Arounds

Task	***F. Short-Field Approach and Landing (ASEL, AMEL)***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a short-field approach and landing with emphasis on proper use and coordination of flight controls.
Knowledge	The applicant demonstrates understanding of:
PA.IV.F.K1	A stabilized approach, to include energy management concepts.
PA.IV.F.K2	Effects of atmospheric conditions, including wind, on approach and landing performance.
PA.IV.F.K3	Wind correction techniques on approach and landing.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.F.R1	Selection of runway based on pilot capability, airplane performance and limitations, available distance, and wind.
PA.IV.F.R2	Effects of:
PA.IV.F.R2a	a. Crosswind
PA.IV.F.R2b	b. Windshear
PA.IV.F.R2c	c. Tailwind
PA.IV.F.R2d	d. Wake turbulence
PA.IV.F.R2e	e. Runway surface/condition
PA.IV.F.R3	Planning for:
PA.IV.F.R3a	a. Go-around and rejected landing
PA.IV.F.R3b	b. Land and hold short operations (LAHSO)
PA.IV.F.R4	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, persons, and wildlife.
PA.IV.F.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.F.R6	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IV.F.S1	Complete the appropriate checklist.
PA.IV.F.S2	Make radio calls as appropriate.
PA.IV.F.S3	Ensure the airplane is aligned with the correct/assigned runway.
PA.IV.F.S4	Scan the landing runway and adjoining area for traffic and obstructions.
PA.IV.F.S5	Select and aim for a suitable touchdown point considering the wind, landing surface, and obstructions.
PA.IV.F.S6	Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required to maintain a stabilized approach.
PA.IV.F.S7	Maintain manufacturer's published approach airspeed or in its absence not more than 1.3 V_{SO}, +10/-5 knots with gust factor applied.
PA.IV.F.S8	Maintain directional control and appropriate crosswind correction throughout the approach and landing.
PA.IV.F.S9	Make smooth, timely, and correct control application during the round out and touchdown.
PA.IV.F.S10	Touch down at a proper pitch attitude within 200 feet beyond or on the specified point, threshold markings, or runway numbers, with no side drift, minimum float, and with the airplane's longitudinal axis aligned with and over runway centerline.
PA.IV.F.S11	Use manufacturer's recommended procedures for airplane configuration and braking.
PA.IV.F.S12	Execute a timely go-around if the approach cannot be made within the tolerances specified above or for any other condition that may result in an unsafe approach or landing.
PA.IV.F.S13	Utilize runway incursion avoidance procedures.

IV. Takeoffs, Landings, and Go-Arounds

Task	***M. Forward Slip to a Landing (ASEL, ASES)***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a forward slip to a landing.
Knowledge	The applicant demonstrates understanding of:
PA.IV.M.K1	Concepts of energy management during a forward slip approach.
PA.IV.M.K2	Effects of atmospheric conditions, including wind, on approach and landing performance.
PA.IV.M.K3	Wind correction techniques during forward slip.
PA.IV.M.K4	When and why a forward slip approach is used during an approach.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.M.R1	Selection of runway or approach path and touchdown area based on pilot capability, airplane performance and limitations, available distance, and wind.
PA.IV.M.R2	Effects of:
PA.IV.M.R2a	a. Crosswind
PA.IV.M.R2b	b. Windshear
PA.IV.M.R2c	c. Tailwind
PA.IV.M.R2d	d. Wake turbulence
PA.IV.M.R2e	e. Landing surface/condition
PA.IV.M.R3	Planning for:
PA.IV.M.R3a	a. Go-around and rejected landing
PA.IV.M.R3b	b. Land and hold short operations (LAHSO)
PA.IV.M.R4	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.
PA.IV.M.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.M.R6	Distractions, loss of situational awareness, or improper task management.
PA.IV.M.R7	Forward slip operations, including fuel flowage, tail stalls with flaps, and lack of airspeed control.
PA.IV.M.R8	Surface contact with the airplane's longitudinal axis misaligned.
PA.IV.M.R9	Unstable approach.
Skills	The applicant demonstrates the ability to:
PA.IV.M.S1	Complete the appropriate checklist.
PA.IV.M.S2	Make radio calls as appropriate.
PA.IV.M.S3	Plan and follow a flightpath to the selected landing area considering altitude, wind, terrain, and obstructions.
PA.IV.M.S4	Select the most suitable touchdown point based on wind, landing surface, obstructions, and airplane limitations.
PA.IV.M.S5	Position airplane on downwind leg, parallel to landing runway.
PA.IV.M.S6	Configure the airplane correctly.
PA.IV.M.S7	As necessary, correlate crosswind with direction of forward slip and transition to sideslip before touchdown.
PA.IV.M.S8	Touch down at a proper pitch attitude, within 400 feet beyond or on the specified point, with no side drift, and with the airplane's longitudinal axis aligned with and over the runway center/landing path.
PA.IV.M.S9	Maintain a ground track aligned with the runway center/landing path.

IV. Takeoffs, Landings, and Go-Arounds

Task	***N. Go-Around/Rejected Landing***
References	FAA-H-8083-3, FAA-H-8083-23; POH/AFM; AIM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a go-around/rejected landing with emphasis on factors that contribute to landing conditions that may require a go-around.
Knowledge	The applicant demonstrates understanding of:
PA.IV.N.K1	A stabilized approach, to include energy management concepts.
PA.IV.N.K2	Effects of atmospheric conditions, including wind and density altitude on a go-around or rejected landing.
PA.IV.N.K3	Wind correction techniques on takeoff/departure and approach/landing.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.N.R1	Delayed recognition of the need for a go-around/rejected landing.
PA.IV.N.R2	Delayed performance of a go-around at low altitude.
PA.IV.N.R3	Improper application of power.
PA.IV.N.R4	Improper airplane configuration.
PA.IV.N.R5	Collision hazards, to include aircraft, terrain, obstacles, wires, vehicles, vessels, persons, and wildlife.
PA.IV.N.R6	Low altitude maneuvering including stall, spin, or CFIT.
PA.IV.N.R7	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IV.N.S1	Complete the appropriate checklist.
PA.IV.N.S2	Make radio calls as appropriate.
PA.IV.N.S3	Make a timely decision to discontinue the approach to landing.
PA.IV.N.S4	Apply takeoff power immediately and transition to climb pitch attitude for V_X or V_Y as appropriate +10/-5 knots.
PA.IV.N.S5	Configure the airplane after a positive rate of climb has been verified or in accordance with airplane manufacturer's instructions.
PA.IV.N.S6	Maneuver to the side of the runway/landing area when necessary to clear and avoid conflicting traffic.
PA.IV.N.S7	Maintain V_Y +10/-5 knots to a safe maneuvering altitude.
PA.IV.N.S8	Maintain directional control and proper wind-drift correction throughout the climb.

V. Performance and Ground Reference Maneuvers

Task	***A. Steep Turns***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with steep turns. ***Note:*** *See Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations.*
Knowledge	The applicant demonstrates understanding of:
PA.V.A.K1	Purpose of steep turns.
PA.V.A.K2	Aerodynamics associated with steep turns, to include:
PA.V.A.K2a	a. Coordinated and uncoordinated flight
PA.V.A.K2b	b. Overbanking tendencies
PA.V.A.K2c	c. Maneuvering speed, including the impact of weight changes
PA.V.A.K2d	d. Load factor and accelerated stalls
PA.V.A.K2e	e. Rate and radius of turn
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.V.A.R1	Failure to divide attention between airplane control and orientation.
PA.V.A.R2	Collision hazards, to include aircraft and terrain.
PA.V.A.R3	Low altitude maneuvering including stall, spin, or CFIT.
PA.V.A.R4	Distractions, improper task management, loss of situational awareness, or disorientation.
PA.V.A.R5	Failure to maintain coordinated flight.
Skills	The applicant demonstrates the ability to:
PA.V.A.S1	Clear the area.
PA.V.A.S2	Establish the manufacturer's recommended airspeed; or if one is not available, an airspeed not to exceed V_A.
PA.V.A.S3	Roll into a coordinated 360° steep turn with approximately a 45° bank.
PA.V.A.S4	Perform the Task in the opposite direction, as specified by evaluator.
PA.V.A.S5	Maintain the entry altitude ±100 feet, airspeed ±10 knots, bank ±5°, and roll out on the entry heading ±10°.

V. Performance and Ground Reference Maneuvers

Task	***B. Ground Reference Maneuvers***
References	14 CFR part 61; FAA-H-8083-2, FAA-H-8083-3
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with ground reference maneuvering which may include a rectangular course, S-turns, and turns around a point. ***Note:*** *See Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations.*
Knowledge	The applicant demonstrates understanding of:
PA.V.B.K1	Purpose of ground reference maneuvers.
PA.V.B.K2	Effects of wind on ground track and relation to a ground reference point.
PA.V.B.K3	Effects of bank angle and groundspeed on rate and radius of turn.
PA.V.B.K4	Relationship of rectangular course to airport traffic pattern.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.V.B.R1	Failure to divide attention between airplane control and orientation.
PA.V.B.R2	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.V.B.R3	Low altitude maneuvering including stall, spin, or CFIT.
PA.V.B.R4	Distractions, loss of situational awareness, or improper task management.
PA.V.B.R5	Failure to maintain coordinated flight.
Skills	The applicant demonstrates the ability to:
PA.V.B.S1	Clear the area.
PA.V.B.S2	Select a suitable ground reference area, line, or point as appropriate.
PA.V.B.S3	Plan the maneuver: ***Note:*** *The evaluator must select at least one maneuver for the applicant to demonstrate.*
PA.V.B.S3a	a. Rectangular course: enter a left or right pattern, 600 to 1,000 feet above ground level (AGL) at an appropriate distance from the selected reference area, 45° to the downwind leg
PA.V.B.S3b	b. S-turns: enter perpendicular to the selected reference line, 600 to 1,000 feet AGL at an appropriate distance from the selected reference area
PA.V.B.S3c	c. Turns around a point: enter at an appropriate distance from the reference point, 600 to 1,000 feet AGL at an appropriate distance from the selected reference area
PA.V.B.S4	Apply adequate wind-drift correction during straight and turning flight to maintain a constant ground track around a rectangular reference area, or to maintain a constant radius turn on each side of a selected reference line or point.
PA.V.B.S5	If performing S-Turns, reverse the turn directly over the selected reference line; if performing turns around a point, complete turns in either direction, as specified by the evaluator.
PA.V.B.S6	Divide attention between airplane control, traffic avoidance and the ground track while maintaining coordinated flight.
PA.V.B.S7	Maintain altitude ±100 feet; maintain airspeed ±10 knots.

VI. Navigation

Task	***A. Pilotage and Dead Reckoning***
References	14 CFR part 61; FAA-H-8083-2, FAA-H-8083-25; Navigation Charts
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with pilotage and dead reckoning.
Knowledge	The applicant demonstrates understanding of:
PA.VI.A.K1	Pilotage and dead reckoning.
PA.VI.A.K2	Magnetic compass errors.
PA.VI.A.K3	Topography.
PA.VI.A.K4	Selection of appropriate:
PA.VI.A.K4a	a. Route
PA.VI.A.K4b	b. Altitude(s)
PA.VI.A.K4c	c. Checkpoints
PA.VI.A.K5	Plotting a course, to include:
PA.VI.A.K5a	a. Determining heading, speed, and course
PA.VI.A.K5b	b. Wind correction angle
PA.VI.A.K5c	c. Estimating time, speed, and distance
PA.VI.A.K5d	d. True airspeed and density altitude
PA.VI.A.K6	Power setting selection.
PA.VI.A.K7	Planned versus actual flight plan calculations and required corrections.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VI.A.R1	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VI.A.R2	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.VI.A.S1	Prepare and use a flight log.
PA.VI.A.S2	Navigate by pilotage.
PA.VI.A.S3	Navigate by means of pre-computed headings, groundspeeds, and elapsed time.
PA.VI.A.S4	Use the magnetic direction indicator in navigation, to include turns to headings.
PA.VI.A.S5	Verify position within three nautical miles of the flight-planned route.
PA.VI.A.S6	Arrive at the en route checkpoints within five minutes of the initial or revised estimated time of arrival (ETA) and provide a destination estimate.
PA.VI.A.S7	Maintain the appropriate altitude ±200 feet and heading ±15°.

VI. Navigation

Task	***B. Navigation Systems and Radar Services***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-6, FAA-H-8083-25; AIM ***Note:*** *The evaluator should reference the manufacturer's equipment supplement(s) as necessary.*
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with navigation systems and radar services.
Knowledge	The applicant demonstrates understanding of:
PA.VI.B.K1	Ground-based navigation (orientation, course determination, equipment, tests, and regulations).
PA.VI.B.K2	Satellite-based navigation (e.g., equipment, regulations, database considerations, and limitations of satellite navigation).
PA.VI.B.K3	Radar assistance to VFR aircraft (e.g., operations, equipment, available services, traffic advisories).
PA.VI.B.K4	Transponder (Mode(s) A, C, and S).
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VI.B.R1	Failure to manage automated navigation and autoflight systems.
PA.VI.B.R2	Distractions, loss of situational awareness, or improper task management.
PA.VI.B.R3	Limitations of the navigation system in use.
PA.VI.B.R4	Loss of a navigation signal.
Skills	The applicant demonstrates the ability to:
PA.VI.B.S1	Use an airborne electronic navigation system.
PA.VI.B.S2	Determine the airplane's position using the navigation system.
PA.VI.B.S3	Intercept and track a given course, radial, or bearing, as appropriate.
PA.VI.B.S4	Recognize and describe the indication of station or waypoint passage, if appropriate.
PA.VI.B.S5	Recognize signal loss or interference and take appropriate action, if applicable.
PA.VI.B.S6	Use proper communication procedures when utilizing radar services.
PA.VI.B.S7	Maintain the appropriate altitude ±200 feet and heading ±15°.

VI. Navigation

Task	***C. Diversion***
References	FAA-H-8083-2, FAA-H-8083-25; AIM; Navigation Charts
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with diversion.
Knowledge	The applicant demonstrates understanding of:
PA.VI.C.K1	Selecting an alternate destination.
PA.VI.C.K2	Situations that require deviations from flight plan or ATC instructions.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VI.C.R1	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VI.C.R2	Distractions, loss of situational awareness, or improper task management.
PA.VI.C.R3	Failure to make a timely decision to divert.
PA.VI.C.R4	Failure to select an appropriate airport or seaplane base.
PA.VI.C.R5	Failure to utilize all available resources (e.g., automation, ATC, and flight deck planning aids).
Skills	The applicant demonstrates the ability to:
PA.VI.C.S1	Select a suitable destination and route for diversion.
PA.VI.C.S2	Make a reasonable estimate of heading, groundspeed, arrival time, and fuel consumption to the divert airport.
PA.VI.C.S3	Maintain the appropriate altitude ±200 feet and heading ±15°.
PA.VI.C.S4	Update/interpret weather in flight.
PA.VI.C.S5	Utilize flight deck displays of digital weather and aeronautical information, as applicable.

VI. Navigation

Task	***D. Lost Procedures***
References	FAA-H-8083-2, FAA-H-8083-25; AIM; Navigation Charts
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with lost procedures and taking appropriate steps to achieve a satisfactory outcome if lost.
Knowledge	The applicant demonstrates understanding of:
PA.VI.D.K1	Methods to determine position.
PA.VI.D.K2	Assistance available if lost (e.g., radar services, communication procedures).
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VI.D.R1	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VI.D.R2	Distractions, loss of situational awareness, or improper task management.
PA.VI.D.R3	Failure to record times over waypoints.
PA.VI.D.R4	Failure to seek assistance or declare an emergency in a deteriorating situation.
Skills	The applicant demonstrates the ability to:
PA.VI.D.S1	Use an appropriate method to determine position.
PA.VI.D.S2	Maintain an appropriate heading and climb as necessary.
PA.VI.D.S3	Identify prominent landmarks.
PA.VI.D.S4	Use navigation systems/facilities or contact an ATC facility for assistance.

VII. Slow Flight and Stalls

Task	***A. Maneuvering During Slow Flight***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with maneuvering during slow flight. ***Note:*** *See Appendix 6: Safety of Flight and Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations.*
Knowledge	The applicant demonstrates understanding of:
PA.VII.A.K1	Aerodynamics associated with slow flight in various airplane configurations, to include the relationship between angle of attack, airspeed, load factor, power setting, airplane weight and center of gravity, airplane attitude, and yaw effects.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VII.A.R1	Inadvertent slow flight and flight with a stall warning, which could lead to loss of control.
PA.VII.A.R2	Range and limitations of stall warning indicators (e.g., airplane buffet, stall horn, etc.).
PA.VII.A.R3	Failure to maintain coordinated flight.
PA.VII.A.R4	Effect of environmental elements on airplane performance (e.g., turbulence, microbursts, and high-density altitude).
PA.VII.A.R5	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VII.A.R6	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.VII.A.S1	Clear the area.
PA.VII.A.S2	Select an entry altitude that will allow the Task to be completed no lower than 1,500 feet AGL (ASEL, ASES) or 3,000 feet AGL (AMEL, AMES).
PA.VII.A.S3	Establish and maintain an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning (e.g., airplane buffet, stall horn, etc.).
PA.VII.A.S4	Accomplish coordinated straight-and-level flight, turns, climbs, and descents with the airplane configured as specified by the evaluator without a stall warning (e.g., airplane buffet, stall horn, etc.).
PA.VII.A.S5	Maintain the specified altitude, ±100 feet; specified heading, ±10°; airspeed, +10/-0 knots; and specified angle of bank, ±10°.

VII. Slow Flight and Stalls

Task	***B. Power-Off Stalls***
References	FAA-H-8083-2, FAA-H-8083-3; AC 61-67; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with power-off stalls. ***Note:*** *See Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations.*
Knowledge	The applicant demonstrates understanding of:
PA.VII.B.K1	Aerodynamics associated with stalls in various airplane configurations, to include the relationship between angle of attack, airspeed, load factor, power setting, airplane weight and center of gravity, airplane attitude, and yaw effects.
PA.VII.B.K2	Stall characteristics (i.e., airplane design) and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel).
PA.VII.B.K3	Factors and situations that can lead to a power-off stall and actions that can be taken to prevent it.
PA.VII.B.K4	Fundamentals of stall recovery.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VII.B.R1	Factors and situations that could lead to an inadvertent power-off stall, spin, and loss of control.
PA.VII.B.R2	Range and limitations of stall warning indicators (e.g., airplane buffet, stall horn, etc.).
PA.VII.B.R3	Failure to recognize and recover at the stall warning during normal operations.
PA.VII.B.R4	Improper stall recovery procedure.
PA.VII.B.R5	Secondary stalls, accelerated stalls, and cross-control stalls.
PA.VII.B.R6	Effect of environmental elements on airplane performance related to power-off stalls (e.g., turbulence, microbursts, and high-density altitude).
PA.VII.B.R7	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VII.B.R8	Distractions, improper task management, loss of situational awareness, or disorientation.
Skills	The applicant demonstrates the ability to:
PA.VII.B.S1	Clear the area.
PA.VII.B.S2	Select an entry altitude that will allow the Task to be completed no lower than 1,500 feet AGL (ASEL, ASES) or 3,000 feet AGL (AMEL, AMES).
PA.VII.B.S3	Configure the airplane in the approach or landing configuration, as specified by the evaluator, and maintain coordinated flight throughout the maneuver.
PA.VII.B.S4	Establish a stabilized descent.
PA.VII.B.S5	Transition smoothly from the approach or landing attitude to a pitch attitude that will induce a stall.
PA.VII.B.S6	Maintain a specified heading ±10° if in straight flight; maintain a specified angle of bank not to exceed 20°, ±10° if in turning flight, while inducing the stall.
PA.VII.B.S7	Acknowledge cues of the impending stall and then recover promptly after a full stall occurs.
PA.VII.B.S8	Execute a stall recovery in accordance with procedures set forth in the POH/AFM.
PA.VII.B.S9	Configure the airplane as recommended by the manufacturer, and accelerate to V_X or V_Y.
PA.VII.B.S10	Return to the altitude, heading, and airspeed specified by the evaluator.

VII. Slow Flight and Stalls

Task	***C. Power-On Stalls***
References	FAA-H-8083-2, FAA-H-8083-3; AC 61-67; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with power-on stalls. ***Note:*** *See Appendix 6: Safety of Flight and Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations.*
Knowledge	The applicant demonstrates understanding of:
PA.VII.C.K1	Aerodynamics associated with stalls in various airplane configurations, to include the relationship between angle of attack, airspeed, load factor, power setting, airplane weight and center of gravity, airplane attitude, and yaw effects.
PA.VII.C.K2	Stall characteristics (i.e., airplane design) and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel).
PA.VII.C.K3	Factors and situations that can lead to a power-on stall and actions that can be taken to prevent it.
PA.VII.C.K4	Fundamentals of stall recovery.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VII.C.R1	Factors and situations that could lead to an inadvertent power-on stall, spin, and loss of control.
PA.VII.C.R2	Range and limitations of stall warning indicators (e.g., airplane buffet, stall horn, etc.).
PA.VII.C.R3	Failure to recognize and recover at the stall warning during normal operations.
PA.VII.C.R4	Improper stall recovery procedure.
PA.VII.C.R5	Secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls.
PA.VII.C.R6	Effect of environmental elements on airplane performance related to power-on stalls (e.g., turbulence, microbursts, and high-density altitude).
PA.VII.C.R7	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VII.C.R8	Distractions, improper task management, loss of situational awareness, or disorientation.
Skills	The applicant demonstrates the ability to:
PA.VII.C.S1	Clear the area.
PA.VII.C.S2	Select an entry altitude that will allow the Task to be completed no lower than 1,500 feet AGL (ASEL, ASES) or 3,000 feet AGL (AMEL, AMES).
PA.VII.C.S3	Establish the takeoff, departure, or cruise configuration, as specified by the evaluator, and maintain coordinated flight throughout the maneuver.
PA.VII.C.S4	Set power (as assigned by the evaluator) to no less than 65 percent power.
PA.VII.C.S5	Transition smoothly from the takeoff or departure attitude to the pitch attitude that will induce a stall.
PA.VII.C.S6	Maintain a specified heading ±10° if in straight flight; maintain a specified angle of bank not to exceed 20°, ±10° if in turning flight, while inducing the stall.
PA.VII.C.S7	Acknowledge cues of the impending stall and then recover promptly after a full stall occurs.
PA.VII.C.S8	Execute a stall recovery in accordance with procedures set forth in the POH/AFM.
PA.VII.C.S9	Configure the airplane as recommended by the manufacturer, and accelerate to V_X or V_Y.
PA.VII.C.S10	Return to the altitude, heading, and airspeed specified by the evaluator.

VII. Slow Flight and Stalls

Task	***D. Spin Awareness***
References	FAA-H-8083-2, FAA-H-8083-3; AC 61-67; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with spins, flight situations where unintentional spins may occur and procedures for recovery from unintentional spins.
Knowledge	The applicant demonstrates understanding of:
PA.VII.D.K1	Aerodynamics associated with spins in various airplane configurations, to include the relationship between angle of attack, airspeed, load factor, power setting, airplane weight and center of gravity, airplane attitude, and yaw effects.
PA.VII.D.K2	What causes a spin and how to identify the entry, incipient, and developed phases of a spin.
PA.VII.D.K3	Spin recovery procedure.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VII.D.R1	Factors and situations that could lead to inadvertent spin and loss of control.
PA.VII.D.R2	Range and limitations of stall warning indicators (e.g., airplane buffet, stall horn, etc.).
PA.VII.D.R3	Improper spin recovery procedure.
PA.VII.D.R4	Effect of environmental elements on airplane performance related to spins (e.g., turbulence, microbursts, and high-density altitude).
PA.VII.D.R5	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VII.D.R6	Distractions, improper task management, loss of situational awareness, or disorientation.
Skills	[Intentionally left blank]

VIII. Basic Instrument Maneuvers

Task	***A. Straight-and-Level Flight***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-15
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with flying during straight-and-level flight solely by reference to instruments.
Knowledge	The applicant demonstrates understanding of:
PA.VIII.A.K1	Flight instruments as related to:
PA.VIII.A.K1a	a. Sensitivity, limitations, and potential errors in unusual attitudes
PA.VIII.A.K1b	b. Correlation (pitch instruments/bank instruments)
PA.VIII.A.K1c	c. Function and operation
PA.VIII.A.K1d	d. Proper instrument cross-check techniques
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VIII.A.R1	Instrument flying hazards to include failure to maintain VFR, spatial disorientation, loss of control, fatigue, stress, and emergency off airport landings.
PA.VIII.A.R2	Failure to seek assistance or declare an emergency in a deteriorating situation.
PA.VIII.A.R3	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VIII.A.R4	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.VIII.A.S1	Maintain straight-and-level flight using proper instrument cross-check and interpretation, and coordinated control application.
PA.VIII.A.S2	Maintain altitude ±200 feet, heading ±20°, and airspeed ±10 knots.

VIII. Basic Instrument Maneuvers

Task	***B. Constant Airspeed Climbs***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-15
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with attitude instrument flying during constant airspeed climbs solely by reference to instruments.
Knowledge	The applicant demonstrates understanding of:
PA.VIII.B.K1	Flight instruments as related to:
PA.VIII.B.K1a	a. Sensitivity, limitations, and potential errors in unusual attitudes
PA.VIII.B.K1b	b. Correlation (pitch instruments/bank instruments)
PA.VIII.B.K1c	c. Function and operation
PA.VIII.B.K1d	d. Proper instrument cross-check techniques
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VIII.B.R1	Instrument flying hazards to include failure to maintain VFR, spatial disorientation, loss of control, fatigue, stress, and emergency off airport landings.
PA.VIII.B.R2	Failure to seek assistance or declare an emergency in a deteriorating situation.
PA.VIII.B.R3	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VIII.B.R4	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.VIII.B.S1	Transition to the climb pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation, and coordinated flight control application.
PA.VIII.B.S2	Climb at a constant airspeed to specific altitudes in straight flight and turns.
PA.VIII.B.S3	Level off at the assigned altitude and maintain altitude ±200 feet, heading ±20°, and airspeed ±10 knots.

VIII. Basic Instrument Maneuvers

Task	***C. Constant Airspeed Descents***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-15
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with attitude instrument flying during constant airspeed descents solely by reference to instruments.
Knowledge	The applicant demonstrates understanding of:
PA.VIII.C.K1	Flight instruments as related to:
PA.VIII.C.K1a	a. Sensitivity, limitations, and potential errors in unusual attitudes
PA.VIII.C.K1b	b. Correlation (pitch instruments/bank instruments)
PA.VIII.C.K1c	c. Function and operation
PA.VIII.C.K1d	d. Proper instrument cross-check techniques
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VIII.C.R1	Instrument flying hazards to include failure to maintain VFR, spatial disorientation, loss of control, fatigue, stress, and emergency off airport landings.
PA.VIII.C.R2	Failure to seek assistance or declare an emergency in a deteriorating situation.
PA.VIII.C.R3	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VIII.C.R4	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.VIII.C.S1	Transition to the descent pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation, and coordinated flight control application.
PA.VIII.C.S2	Descend at a constant airspeed to specific altitudes in straight flight and turns.
PA.VIII.C.S3	Level off at the assigned altitude and maintain altitude ±200 feet, heading ±20°, and airspeed ±10 knots.

VIII. Basic Instrument Maneuvers

Task	***D. Turns to Headings***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-15
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with attitude instrument flying during turns to headings solely by reference to instruments.
Knowledge	The applicant demonstrates understanding of:
PA.VIII.D.K1	Flight instruments as related to:
PA.VIII.D.K1a	a. Sensitivity, limitations, and potential errors in unusual attitudes
PA.VIII.D.K1b	b. Correlation (pitch instruments/bank instruments)
PA.VIII.D.K1c	c. Function and operation
PA.VIII.D.K1d	d. Proper instrument cross-check techniques
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VIII.D.R1	Instrument flying hazards to include failure to maintain VFR, spatial disorientation, loss of control, fatigue, stress, and emergency off airport landings.
PA.VIII.D.R2	Failure to seek assistance or declare an emergency in a deteriorating situation.
PA.VIII.D.R3	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VIII.D.R4	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.VIII.D.S1	Turn to headings, maintain altitude ±200 feet, maintain a standard rate turn, roll out on the assigned heading ±10°, and maintain airspeed ±10 knots.

VIII. Basic Instrument Maneuvers

Task	***E. Recovery from Unusual Flight Attitudes***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-15
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with attitude instrument flying while recovering from unusual attitudes solely by reference to instruments.
Knowledge	The applicant demonstrates understanding of:
PA.VIII.E.K1	Flight instruments as related to:
PA.VIII.E.K1a	a. Sensitivity, limitations, and potential errors in unusual attitudes
PA.VIII.E.K1b	b. Correlation (pitch instruments/bank instruments)
PA.VIII.E.K1c	c. Function and operation
PA.VIII.E.K1d	d. Proper instrument cross-check techniques
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VIII.E.R1	Instrument flying hazards to include failure to maintain VFR, spatial disorientation, loss of control, fatigue, stress, and emergency off airport landings.
PA.VIII.E.R2	Failure to seek assistance or declare an emergency in a deteriorating situation.
PA.VIII.E.R3	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VIII.E.R4	Distractions, loss of situational awareness, or improper task management.
PA.VIII.E.R5	Failure to interpret flight instruments.
PA.VIII.E.R6	Failure to unload the wings in recovering from high G situations.
PA.VII.E.R7	Exceeding the operating envelope during the recovery.
Skills	The applicant demonstrates the ability to:
PA.VIII.E.S1	Recognize unusual flight attitudes; perform the correct, coordinated, and smooth flight control application to resolve unusual pitch and bank attitudes while staying within the airplane's limitations and flight parameters.

VIII. Basic Instrument Maneuvers

Task	***F. Radio Communications, Navigation Systems/Facilities, and Radar Services***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-15, FAA-H-8083-25
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with radio communications, navigation systems/facilities, and radar services available for use during flight solely by reference to instruments.
Knowledge	The applicant demonstrates understanding of:
PA.VIII.F.K1	Operating communications equipment to include identifying and selecting radio frequencies, requesting and following ATC instructions.
PA.VIII.F.K2	Operating navigation equipment to include functions and displays, and following bearings, radials, or courses.
PA.VIII.F.K3	Air traffic control facilities and services.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VIII.F.R1	Failure to seek assistance or declare an emergency in a deteriorating situation.
PA.VIII.F.R2	Failure to utilize all available resources (e.g., automation, ATC, and flight deck planning aids).
Skills	The applicant demonstrates the ability to:
PA.VIII.F.S1	Maintain airplane control while selecting proper communications frequencies, identifying the appropriate facility, and managing navigation equipment.
PA.VIII.F.S2	Comply with ATC instructions.
PA.VIII.F.S3	Maintain altitude ±200 feet, heading ±20°, and airspeed ±10 knots.

IX. Emergency Operations

Task	***A. Emergency Descent***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with an emergency descent. ***Note:*** *See Appendix 6: Safety of Flight.*
Knowledge	The applicant demonstrates understanding of:
PA.IX.A.K1	Situations that would require an emergency descent (e.g., depressurization, smoke, or engine fire).
PA.IX.A.K2	Immediate action items and emergency procedures.
PA.IX.A.K3	Airspeed, to include airspeed limitations.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IX.A.R1	Failure to consider altitude, wind, terrain, obstructions, and available glide distance.
PA.IX.A.R2	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.IX.A.R3	Improper airplane configuration.
PA.IX.A.R4	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IX.A.S1	Clear the area.
PA.IX.A.S2	Establish and maintain the appropriate airspeed and configuration appropriate to the scenario specified by the evaluator and as covered in POH/AFM for the emergency descent.
PA.IX.A.S3	Maintain orientation, divide attention appropriately, and plan and execute a smooth recovery.
PA.IX.A.S4	Use bank angle between 30° and 45° to maintain positive load factors during the descent.
PA.IX.A.S5	Maintain appropriate airspeed +0/-10 knots, and level off at a specified altitude ±100 feet.
PA.IX.A.S6	Complete the appropriate checklist.

IX. Emergency Operations

Task	***B. Emergency Approach and Landing (Simulated) (ASEL, ASES)***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with emergency approach and landing procedures. ***Note:*** *See Appendix 6: Safety of Flight.*
Knowledge	The applicant demonstrates understanding of:
PA.IX.B.K1	Immediate action items and emergency procedures.
PA.IX.B.K2	Airspeed, to include:
PA.IX.B.K2a	a. Importance of best glide speed and its relationship to distance
PA.IX.B.K2b	b. Difference between best glide speed and minimum sink speed
PA.IX.B.K2c	c. Effects of wind on glide distance
PA.IX.B.K3	Effects of atmospheric conditions on emergency approach and landing.
PA.IX.B.K4	A stabilized approach, to include energy management concepts.
PA.IX.B.K5	ELTs and other emergency locating devices.
PA.IX.B.K6	ATC services to aircraft in distress.
Risk Management	The applicant demonstrates the ability to identify, assess, and mitigate risks, encompassing:
PA.IX.B.R1	Failure to consider altitude, wind, terrain, obstructions, gliding distance, and available landing distance.
PA.IX.B.R2	Failure to plan and follow a flightpath to the selected landing area.
PA.IX.B.R3	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.IX.B.R4	Improper airplane configuration.
PA.IX.B.R5	Low altitude maneuvering including stall, spin, or CFIT.
PA.IX.B.R6	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IX.B.S1	Establish and maintain the recommended best glide airspeed, ±10 knots.
PA.IX.B.S2	Configure the airplane in accordance with the POH/AFM and existing conditions.
PA.IX.B.S3	Select a suitable landing area considering altitude, wind, terrain, obstructions, and available glide distance.
PA.IX.B.S4	Plan and follow a flightpath to the selected landing area considering altitude, wind, terrain, and obstructions.
PA.IX.B.S5	Prepare for landing as specified by the evaluator.
PA.IX.B.S6	Complete the appropriate checklist.

IX. Emergency Operations

Task	***C. Systems and Equipment Malfunctions***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with system and equipment malfunctions appropriate to the airplane provided for the practical test and analyzing the situation and take appropriate action for simulated emergencies.
Knowledge	The applicant demonstrates understanding of:
PA.IX.C.K1	Partial or complete power loss related to the specific powerplant, including:
PA.IX.C.K1a	a. Engine roughness or overheat
PA.IX.C.K1b	b. Carburetor or induction icing
PA.IX.C.K1c	c. Loss of oil pressure
PA.IX.C.K1d	d. Fuel starvation
PA.IX.C.K2	System and equipment malfunctions specific to the airplane, including:
PA.IX.C.K2a	a. Electrical malfunction
PA.IX.C.K2b	b. Vacuum/pressure and associated flight instrument malfunctions
PA.IX.C.K2c	c. Pitot/static system malfunction
PA.IX.C.K2d	d. Electronic flight deck display malfunction
PA.IX.C.K2e	e. Landing gear or flap malfunction
PA.IX.C.K2f	f. Inoperative trim
PA.IX.C.K3	Smoke/fire/engine compartment fire.
PA.IX.C.K4	Any other system specific to the airplane (e.g., supplemental oxygen, deicing).
PA.IX.C.K5	Inadvertent door or window opening.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IX.C.R1	Failure to use the proper checklist for a system or equipment malfunction.
PA.IX.C.R2	Distractions, loss of situational awareness, or improper task management.
Skills	The applicant demonstrates the ability to:
PA.IX.C.S1	Describe appropriate action for simulated emergencies specified by the evaluator, from at least three of the elements or sub-elements listed in K1 through K5 above.
PA.IX.C.S2	Complete the appropriate checklist.

IX. Emergency Operations

Task	***D. Emergency Equipment and Survival Gear***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with emergency equipment, and survival gear appropriate to the airplane and environment encountered during flight and identifying appropriate equipment that should be onboard the airplane.
Knowledge	The applicant demonstrates understanding of:
PA.IX.D.K1	Emergency Locator Transmitter (ELT) operations, limitations, and testing requirements.
PA.IX.D.K2	Fire extinguisher operations and limitations.
PA.IX.D.K3	Emergency equipment and survival gear needed for:
PA.IX.D.K3a	a. Climate extremes (hot/cold)
PA.IX.D.K3b	b. Mountainous terrain
PA.IX.D.K3c	c. Overwater operations
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IX.D.R1	Failure to plan for basic needs (water, clothing, shelter) for 48 to 72 hours.
Skills	The applicant demonstrates the ability to:
PA.IX.D.S1	Identify appropriate equipment and personal gear.
PA.IX.D.S2	Brief passengers on proper use of on-board emergency equipment and survival gear.

XI. Night Operations

Task	***A. Night Preparation***
References	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25; AIM; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with night operations.
Knowledge	The applicant demonstrates understanding of:
PA.XI.A.K1	Physiological aspects of vision related to night flying.
PA.XI.A.K2	Lighting systems identifying airports, runways, taxiways and obstructions, as well as pilot controlled lighting.
PA.XI.A.K3	Airplane equipment and lighting requirements for night operations.
PA.XI.A.K4	Personal equipment essential for night flight.
PA.XI.A.K5	Night orientation, navigation, and chart reading techniques.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.XI.A.R1	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.XI.A.R2	Distractions, loss of situational awareness, or improper task management.
PA.XI.A.R3	Hazards specific to night flying.
Skills	*N/A* ***Note:*** *Not generally evaluated in flight. If the practical test is conducted at night, all ACS Tasks are evaluated in that environment, thus there is no need for explicit Task elements to exist here.*

XII. Postflight Procedures

Task	***A. After Landing, Parking and Securing (ASEL, AMEL)***
References	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with after landing, parking, and securing procedures.
Knowledge	The applicant demonstrates understanding of:
PA.XII.A.K1	Airplane shutdown, securing, and postflight inspection.
PA.XII.A.K2	Documenting in-flight/postflight discrepancies.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.XII.A.R1	Inappropriate activities and distractions.
PA.XII.A.R2	Confirmation or expectation bias as related to taxi instructions.
PA.XII.A.R3	Airport specific security procedures.
PA.XII.A.R4	Disembarking passengers.
Skills	The applicant demonstrates the ability to:
PA.XII.A.S1	Utilize runway incursion avoidance procedures.
PA.XII.A.S2	Park in an appropriate area, considering the safety of nearby persons and property.
PA.XII.A.S3	Complete the appropriate checklist.
PA.XII.A.S4	Conduct a postflight inspection and document discrepancies and servicing requirements, if any.
PA.XII.A.S5	Secure the airplane.

Practical Test Checklist (Applicant)
Appointment with Evaluator

Evaluator's Name: _____

Location: _____

Date/Time: _____

Acceptable Aircraft

- ☐ Aircraft Documents:
  - ☐ Airworthiness Certificate
  - ☐ Registration Certificate
  - ☐ Operating Limitations
- ☐ Aircraft Maintenance Records:
  - ☐ Logbook Record of Airworthiness Inspections and AD Compliance
- ☐ Pilot's Operating Handbook, FAA-Approved Aircraft Flight Manual

Personal Equipment

- ☐ View-Limiting Device
- ☐ Current Aeronautical Charts (printed or electronic)
- ☐ Computer and Plotter
- ☐ Flight Plan Form and Flight Logs (printed or electronic)
- ☐ Chart Supplements, Airport Diagrams, and appropriate publications
- ☐ Current AIM

Personal Records

- ☐ Identification—Photo/Signature ID
- ☐ Pilot Certificate
- ☐ Current Medical Certificate or BasicMed qualification (when applicable)
- ☐ Completed FAA Form 8710-1, Airman Certificate and/or Rating Application with Instructor's Signature or completed IACRA form
- ☐ Original Airman Knowledge Test Report
- ☐ Pilot Logbook with appropriate Instructor Endorsements
- ☐ FAA Form 8060-5, Notice of Disapproval (if applicable)
- ☐ Letter of Discontinuance (if applicable)
- ☐ Approved School Graduation Certificate (if applicable)
- ☐ Evaluator's Fee (if applicable)