AeroDynamic's Stage Check 3

Student: _____

Stage Check CFI: _____

CFI's Signature: _____

Approved for Checkride? YES NO

May 2022 edition

	Applicant's Checklist
	☐ Valid identification (DL, Passport, etc.)
	☐ Pilot certificate
	☐ Medical certificate
	☐ Airman Knowledge Test report
	☐ Pilot logbook with appropriate endorsements
	☐ Current Aeronautical Charts (printed or electronic)
	☐ Flight computer and plotter
	☐ XC flight plan and flight logs (printed or electronic)
	☐ Chart Supplements, airport diagrams, and other appropriate publications
	☐ Current FAR/AIM
	☐ AFM/POH for the aircraft we will fly today
	☐ Aircraft documents and maintenance records
	☐ Notes, books, computer and any other references
	☐ Contact Stage Check CFI for XC and W&B assignment at least 1 day before stage check

Applicant's Full Name

FTN

Student pilot certificate #

Medical class & issue date

Knowledge test score

Missed questions

Recommending CFI

Aircraft make & model

Aircraft N #

	Logbook Verification
40 hours	☐ Total Flight Time
	☐
20 hours	☐ Dual ASEL
3 hours	☐ Dual Cross-country instruction
3 hours	☐ Dual Night, including xc of >100 nm total distance
10 to a full stop	☐ Dual Night Takeoffs and Landings
3 hours	☐ Dual Instrument instruction
3 hours	☐ Dual checkride preparation within the preceding 2 calendar months (not meeting minimums for other reqs.)
	☐
10 hours	☐ Solo ASEL
3 to a full stop	☐ Solo landings at a controlled field
5 hours	☐ Solo Cross-countries (> 50 nm from original departure), including:
1	☐ Solo XC of 150 nm total distance, with one segment more than 50 nm straight-line distance between takeoff & landing, and at least 3 points of landing
	☐

	Endorsement Verification
	☐ All ground training logged per §61.105(b)
	☐ All flight training logged per §61.107(b)
	☐ Pre-solo knowledge and training §61.87(b)(c)(d)(n)
	☐ Additional 90-day solo §61.87(p)
	☐ Initial solo cross-country flight §61.93(c)(1)(2)
	☐ Each solo cross-country flight §61.93(c)(3)
	☐ Aeronautical knowledge test §61.35(a)(1), §61.103(d), and §61.105
	☐ PIC Tailwheel §61.31(i), if applicable
	☐ Sport Pilot §61.325 and §61.327, if applicable
	☐ TSA §1552.3(h)
	☐ Practical test §61.39(a)(6)(i)(ii)(iii), as applicable
	☐ Practical test §61.103(f), §61.107(b), and §61.109
	☐ IACRA filled out & signed
	☐

HIGHLIGHTER KEY

To ACS

Airman Knowledge Test deficient area

Not to ACS

GRADING SCALE:

Evaluator's overall assessment of applicant's level of mastery of each ACS Task

SCORE 0 1 2 3 4 5

OVERVIEW

RECOMMENDATIONS

TABLE OF CONTENTS - GROUND

TABLE OF CONTENTS - FLIGHT

TABLE OF CONTENTS - FLIGHT (cont'd)

Pilot Qualifications

SCORE 0 1 2 3 4 5

Knowledge

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

PA.I.A.R1	Failure to distinguish proficiency vs. currency
PA.I.A.R2	Flying unfamiliar airplanes, or operating with unfamiliar flight display systems, and avionics

Skills

PA.I.A.S1	Applying the requirements to act as PIC under VFR in a scenario given by the Evaluator

Airworthiness Requirements SCORE 0 1 2 3 4 5

Knowledge

PA.I.B.K1 Airworthiness requirements and compliance including:
- PA.I.B.K1a Certificate location and expiration dates
- PA.I.B.K1b Required inspections and airplane logbook documentation
- PA.I.B.K1c ADs and Special Airworthiness Information Bulletins
- PA.I.B.K1d Purpose and procedure for obtaining a special flight permit

PA.I.B.K2 Pilot-performed preventative maintenance

PA.I.B.K3 Equipment requirements for day and night VFR flight, to include:
- PA.I.B.K3a Flying with inoperative equipment
- PA.I.B.K3b Using an approved Minimum Equipment List (MEL)
- PA.I.B.K3c Kinds of Operation Equipment List (KOEL)
- PA.I.B.K3d Required discrepancy records or placards

Risk Management

PA.I.B.R1 Inoperative equipment discovered prior to flight

Skills

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 Evaluator

PA.I.B.S3 Apply appropriate procedures for operating with inoperative equipment in a scenario given by Evaluator

Cross-Country Flight Planning SCORE 0 1 2 3 4 5

Knowledge

PA.I.D.K1 Route planning

PA.I.D.K2 Altitude selection: terrain, obstacles, glide, VFR altitudes, and wind

PA.I.D.K3 Calculating:

- PA.I.D.K3a Time, climb and descent rates, course, distance, heading, TAS and GS
- PA.I.D.K3b ETA to include conversion to UTC
- PA.I.D.K3c 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

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 ATC services

PA.I.D.R6 Improper fuel planning

Skills

PA.I.D.S1 Prepare, present, and explain a xc 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 info from current charts, chart supplements, NOTAMs, 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

Weather Information

SCORE 0 1 2 3 4 5

Knowledge

PA.I.C.K1	Sources of weather data (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 to include expected climate and hazardous conditions such as:
PA.I.C.K3	(a) atmospheric composition and stability, (b) wind, (c) temperature (d) moisture/precip (e) weather system formation, including air masses and fronts, (f) clouds, (g) turbulence, (h) thunderstorms and microbursts, (i)icing and freezing level information, (j) fog/mist, (k) frost, (l) obstructions to visibility
PA.I.C.K4	Flight deck displays of digital weather and aeronautical information

Risk Management

PA.I.C.R1	Factors involved in making the go/no-go and continue/divert decisions, to include:
PA.I.C.R1a	Circumstances that would make diversion prudent
PA.I.C.R1b	Personal weather minimums
PA.I.C.R1c	Hazardous weather conditions to include known or forecast icing or turbulence aloft
PA.I.C.R2a-c	Limitations of (a) onboard weather equipment (b) aviation weather reports & forecasts (c) inflight weather resources

Skills

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 3 of the conditions listed in K3a-l 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

National Airspace System

SCORE 0 1 2 3 4 5

Knowledge

PA.I.E.K1	Types of airspace/airspaces classes and associated requirements and limitations
PA.I.E.K2	Charting symbology
PA.I.E.K3	SUA, SFRA, TFR, and other airspace areas

Risk Management

PA.I.E.R1	Various classes and types of airspace

Skills

PA.I.E.S1	Identify and comply with the requirements for basic VFR minimums and flying in particular classes of airspace
PA.I.E.S2	Correctly identify airspace and operate in accordance with associated communication & equipment requirements
PA.I.E.S3	Identify the requirements for operating in SUA or within a TFR. Identify and comply with SATR and SFRA, if applicable

Communications, Light Signals & Runway Lighting Systems

SCORE 0 1 2 3 4 5

Knowledge

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	NTSB accident/incident reporting
PA.III.A.K9	Runway Status Lighting Systems

Risk Management

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

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

Night Preparation

SCORE 0 1 2 3 4 5

Knowledge

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

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 on practical test

Emergency Equipment & Survival Gear

SCORE 0 1 2 3 4 5

Knowledge

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 Climate extremes (hot/cold)
- PA.IX.D.K3b Mountainous terrain
- PA.IX.D.K3c Overwater operations

Risk Management

PA.IX.D.R1 Failure to plan for basic needs (water, clothing, shelter) for 48 to 72 hours

Skills

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

Human Factors

SCORE 0 1 2 3 4 5

Knowledge

PA.I.H.K1 Symptoms, recognition, causes, effects and corrective actions associated with aeromedical and physiological issues including:

- PA.I.H.K1a Hypoxia
- PA.I.H.K1b Hyperventilation
- PA.I.H.K1c Middle ear and sinus problems
- PA.I.H.K1d Spatial disorientation
- PA.I.H.K1e Motion sickness
- PA.I.H.K1f Carbon monoxide poisoning
- PA.I.H.K1g Stress
- PA.I.H.K1h Fatigue
- PA.I.H.K1i Dehydration and nutrition
- PA.I.H.K1j Hypothermia
- PA.I.H.K1k Optical illusions
- PA.I.H.K1l 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 OTC medications

PA.I.H.K4 ADM

Risk Management

PA.I.H.R1 Aeromedical and physiological needs

PA.I.H.R2 Hazardous attitudes

PA.I.H.R3 Distractions, loss of situational awareness, or improper task management

Skills

PA.I.H.S1 Associate the symptoms and effects for at least 3 conditions listed in K1a-l with 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

Performance and Limitations

SCORE 0 1 2 3 4 5

Knowledge

PA.I.F.K1 Explain the use of charts, tables and data to determine performance

PA.I.F.K2 Factors affecting performance to include:

- PA.I.F.K2a Atmospheric conditions
- PA.I.F.K2b Pilot technique
- PA.I.F.K2c Airplane configuration
- PA.I.F.K2d Airport environment
- PA.I.F.K2e Loading
- PA.I.F.K2f Weight and balance

PA.I.F.K3 Aerodynamics

Risk Management

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

PA.I.F.S1 Compute W&B, correct out of CG loading errors, and determine if the W&B remains within limits during all phases of flight

PA.I.F.S2 Utilize appropriate manufacturer's approved performance charts, tables and data

Spin Awareness

SCORE 0 1 2 3 4 5

Knowledge

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, weight and CG, 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

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 indicaators

PA.VII.D.R3 Improper spin recovery procedure

PA.VII.D.R4 Effect of environmental elements on airplane performance related to spins (turbulence, microbursts, high DA, etc.)

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]

Operation of Systems

SCORE 0 1 2 3 4 5

Knowledge

PA.I.G.K1 Airplane systems to include at least 3 of the following:

- PA.I.G.K1a Primary flight controls
- PA.I.G.K1b Secondary flight controls
- PA.I.G.K1c Powerplant and propeller
- PA.I.G.K1d Landing gear
- PA.I.G.K1e Fuel, oil, and hydraulic
- PA.I.G.K1f Electrical
- PA.I.G.K1g Avionics
- PA.I.G.K1h Pitot-static, vacuum/pressure, and associated flight instruments
- PA.I.G.K1i Environmental
- PA.I.G.K1j Deicing and anti-icing
- PA.I.G.K1k N/A (ASES/AMES)
- PA.I.G.K1l Oxygen system

PA.I.G.K2 Indications of and procedures for managing system abnormalities or failures

Risk Management

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

PA.I.G.S1 Operate at least 3 of the systems listed in Ka-l above appropriately

PA.I.G.S2 Use appropriate checklists properly

Preflight Assessment

SCORE 0 1 2 3 4 5

Knowledge

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 Which items must be inspected
- PA.II.A.K3b The reasons for checking each item
- PA.II.A.K3c How to detect possible defects
- PA.II.A.K3d The associated regulations

PA.II.G.K4 Environmental factors including weather, terrain, route selection, and obstructions

Risk Management

PA.II.A.R1 Pilot

PA.II.A.R2 Aircraft

PA.II.A.R3 Environment (weather, airports, airspace, terrain, obstacles)

PA.II.A.R4 External pressures

PA.II.A.R5 Aviation security concerns

Skills

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

Flight Deck Management

SCORE 0 1 2 3 4 5

Knowledge

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

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

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

Engine Starting

SCORE 0 1 2 3 4 5

Knowledge

PA.II.C.K1	Starting under various conditions
PA.II.C.K2	Starting the engine by use of external power
PA.II.C.K3	Engine limitations as they related to starting

Risk Management

PA.II.C.R1	Propeller safety

Skills

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

Taxiing

SCORE 0 1 2 3 4 5

Knowledge

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 Appropriate flight deck activities prior to taxi including route planning and identifying the location of Hot Spots
- PA.II.D.K6b Radio communications at towered and nontowered airports
- PA.II.D.K6c Entering or crossing runways
- PA.II.D.K6d Night taxi operations
- PA.II.D.K6e Low visibility taxi operations

Risk Management

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

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

Before Takeoff Check

SCORE 0 1 2 3 4 5

Knowledge

PA.II.F.K1 Purpose of pre-takeoff checklist items including:

- PA.II.F.K1a Reasons for checking each item
- PA.II.F.K1b Detecting malfunctions
- PA.II.F.K1c Ensuring the airplane is in safe operating condition as recommended by the manufacturer

Risk Management

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

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

Normal Takeoff & Climb

SCORE 0 1 2 3 4 5

Knowledge

PA.IV.A.K1 Effects of atmospheric conditions, including wind, on takeoff and climb performance
PA.IV.A.K2 Vx and Vy
PA.IV.A.K3 Appropriate airplane configuration

Risk Management

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.R2 (a) crosswind, (b) windshear, (c) tailwind, (d) wake turbulence, (e) runway surface/condition
PA.IV.A.R3 Abnormal operations to include planning for:
PA.IV.A.R3 (a) rejected takeoff, (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

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 runway centerline
PA.IV.A.S7 Confirm takeoff power and proper engine and flight instrument indications prior to rotation
PA.IV.A.S8 N/A (ASES, AMES)
PA.IV.A.S9 Rotate and lift off at the recommended airspeed and accelerate to Vy
PA.IV.A.S10 N/A (ASES, AMES)
PA.IV.A.S11 Establish a pitch attitude to maintain the manufacturer's recommended speed or **Vy, +10/-5 knots.**
PA.IV.A.S12 Configure the airplane in accordance with manufacturer's guidance
PA.IV.A.S13 Maintain Vy +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

Pilotage & Dead Reckoning

SCORE 0 1 2 3 4 5

Knowledge
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.K4 (a) route, (b) altitude(s), (c) checkpoints
PA.VI.A.K5 Plotting a course to include:
PA.VI.A.K5a Determining heading, speed, and course
PA.VI.A.K5b Wind correction angle
PA.VI.A.K5c Estimating time, speed, and distance
PA.VI.A.K5d TAS and DA
PA.VI.A.K6 Power setting selection
PA.VI.A.K7 Planned versus actual flight plan calculations and required corrections
Risk Management
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
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°**

Diversion

SCORE 0 1 2 3 4 5

Knowledge
PA.VI.C.K1 Selecting an alternate destination
PA.VI.C.K2 Situations that require deviations from flight plan or ATC instructions
Risk Management
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
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

Navigation Systems & Radar Services

SCORE 0 1 2 3 4 5

Knowledge

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, andlimitations 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

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

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.A.S7 **Maintain the appropriate altitude ±200 feet and heading ±15°**

Lost Procedures

SCORE 0 1 2 3 4 5

Knowledge

PA.VI.D.K1 Methods to determine position

PA.VI.D.K2 Assistance available if lost (e.g., radar services, communication procedures)

Risk Management

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

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

Traffic Patterns

SCORE 0 1 2 3 4 5

Knowledge

PA.III.B.K1	Towered and non towered 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

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

PA.III.B.S1	Identify and interpret airport 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

Normal Approach & Landing SCORE 0 1 2 3 4 5

Note: If a crosswind does not exist, the applicant's knowledge of crosswind elements must be evaluate
Tailwheel Pilots: Both 3-point and wheel landings must be demonstrated as "normal" landings

Knowledge

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

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-e (a) crosswind, (b) windshear, (c) tailwind, (d) wake turbulence, (e) runway surface/condition
PA.IV.B.R3 Planning for:
PA.IV.B.R3a-b (a) go-around and rejected landing, (b) 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

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 Vso, **+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 inclusion avoidance procedures

Soft-field Takeoff & Climb

SCORE 0 1 2 3 4 5

Knowledge

PA.IV.C.K1-K3	Same as Normal Takeoff & Climb
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

PA.IV.C.R1-6	Same as Normal Takeoff & Climb

Skills

PA.IV.C.S1-5	Same as Normal Takeoff & Climb
PA.IV.C.S6	Clear the area, maintain necessary flight control inputs, taxi into takeoff position and align the airplane on 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 prior to rotation
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 Vx or Vy, as appropriate
PA.IV.C.S10	Establish a pitch attitude for **Vx or Vy**, 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 manufacturer's instructions
PA.IV.C.S12	Maintain Vx or Vy, as appropriate, +10/-5 knots to a safe maneuvering altitude
PA.IV.C.S13	Maintain proper directional control and proper wind-drift correction throughout takeoff and climb
PA.IV.C.S14	Comply with noise abatement procedures

Soft-field Approach & Landing

SCORE 0 1 2 3 4 5

Knowledge

PA.IV.D.K1-K3	Same as Normal Approach & Landing

Risk Management

PA.IV.D.R1-6	Same as Normal Approach & Landing

Skills

PA.IV.D.S1-8	Same as Normal Approach & Landing
PA.IV.D.S9	Make smooth, timely, and correct control inputs during the round out and touchdown, and, for bicycle 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

Short-field Takeoff & Max Performance Climb

SCORE 0 1 2 3 4 5

Knowledge

PA.IV.E.K1-K3	Same as Normal Takeoff & Climb

Risk Management

PA.IV.C.R1-6	Same as Normal Takeoff & Climb

Skills

PA.IV.C.S1-5	Same as Normal Takeoff & Climb
PA.IV.C.S6	Clear the area, taxi into takeoff position and align the airplane on the runway centerline utilizing maximum available takeoff area
PA.IV.C.S7	Apply brakes while setting engine power to achieve maximum performance
PA.IV.C.S8	Confirm takeoff power prior to brake release and verify proper engine and flight instrument indications prior to rotation
PA.IV.C.S9	Rotate and lift off at the recommended airspeed and accelerate to the recommended obstacle clearance airspeed or Vx, +10/-5 knots
PA.IV.C.S10	Establish a pitch attitude that will maintain the recommended **obstacle clearance airspeed or Vx, +10/-5 knots** until clearing the obstacle or until the airplane is 50 feet above the surface
PA.IV.C.S11	Establish a pitch attitude for Vy and accelerate to **Vy +10/-5 knots** after clearing the obstacle, or at 50' AGL if simulating
PA.IV.C.S12	Configure the airplane in accordance with the manufacturer's guidance after a positive rate of climb has been verified
PA.IV.C.S13	Maintain Vy +10/-5 knots to a safe maneuvering altitude
PA.IV.C.S14	Maintain proper directional control and proper wind-drift correction throughout takeoff and climb
PA.IV.C.S15	Comply with noise abatement procedures

Short-field Approach & Landing

SCORE 0 1 2 3 4 5

Knowledge

PA.IV.F.K1-K3	Same as Normal Approach & Landing

Risk Management

PA.IV.F.R1-6	Same as Normal Approach & Landing

Skills

PA.IV.F.S1-9	Same as Normal Approach & Landing
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 the 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 inclusion avoidance procedures

Forward Slip to a Landing

SCORE 0 1 2 3 4 5

Knowledge

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

Risk Management

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-e (a) crosswind, (b) windshear, (c) tailwind, (d) wake turbulence, (e) landing surface/condition
PA.IV.M.R3 Planning for:
PA.IV.M.R3a-b (a) go-around and rejected landing, (b) 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

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

Go-Around/Rejected Landing SCORE 0 1 2 3 4 5

Knowledge

PA.IV.N.K1	A stabilized approach, to include energy management concepts
PA.IV.N.K2	Effects of atmospheric conditions, including wind and DA on a go-around or rejected landing
PA.IV.N.K3	Wind correction techniques on takeoff/departure and approach/landing

Risk Management

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

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 **Vx or Vy** 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 Vy +10/-5 knots to a safe maneuvering altitude
PA.IV.N.S8	Maintain directional control and proper wind-drift correction throughout the climb

Ground Reference Maneuvers SCORE 0 1 2 3 4 5

Knowledge

PA.V.B.K1 Purpose of ground reference maneuvers
PA.V.B.K2 Effect 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

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

PA.V.A.S1 Clear the area
PA.V.A.S2 Select a suitable ground reference area, line, or point as appropriate
PA.V.A.S3 Plan the maneuver:

Note: Evaluator must select at least 1 maneuver for applicant to demonstrate

PA.V.A.S3a Rectangular course: enter a left or right pattern, 600' to 1,000' feet AGL at an appropriate distance from the selected reference area, 45 ° to the downwind leg

PA.V.A.S3b S-turns: enter perpendicular to the selected reference line, 600' to 1,000' AGL at an appropriate distance from the selected reference area

PA.V.A.S3c Turns around a point: enter at an appropriate distance from the reference point, 600' to 1,000' AGL at an appropriate distance from the selected reference area

PA.V.A.S4 Apply adequate wind-drift correction during straight and turning flight to maintain a constant ground track around a rectangular area, or to maintain a constant radius turn on each side of a selected reference line or point

PA.V.A.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, or as specified by the Evaluator

PA.V.A.S6 Divide attention between airplane control, traffic avoidance and the ground track while maintaining coordinated flight

PA.V.A.S7 **Maintain altitude ±100 feet; maintain airspeed ±10 knots**

Steep Turns

SCORE 0 1 2 3 4 5

Knowledge

PA.V.A.K1 Purpose of steep turns

PA.V.A.K2 Aerodynamics associated with steep turns, to include:

- PA.V.A.K2a Coordinated and uncoordinated flight
- PA.V.A.K2b Overbanking tendencies
- PA.V.A.K2c Maneuvering speed, including the impact of weight changes
- PA.V.A.K2d Load factor and accelerated stalls
- PA.V.A.K2e Rate and radius of turn

Risk Management

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

PA.V.A.S1 Clear the area

PA.V.A.S2 Establish the manufacturer's recommended airspeed; or if one if not available, an airspeed not to exceed Va

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 the Evaluator.

PA.V.A.S5 **Maintain the entry altitude ±100 feet, airspeed ±10 knots, bank ±5°, and roll out on the entry heading ±10°**

Slow Flight

SCORE 0 1 2 3 4 5

Knowledge

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

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

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
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°.**

Power-off Stalls

SCORE 0 1 2 3 4 5

Knowledge

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

PA.VII.B.K3 Factors and situations that can lead to a power-off or power-on stall and actions that can be taken to prevent it

PA.VII.B.K4 Fundamentals of stall recovery

Risk Management

PA.VII.B.R1 Factors and situations that could lead to an inadvertent power-off or power-on 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 and power-on 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

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

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 Vx or Vy**

PA.VII.B.S10 Return to the altitude, heading, and airspeed specified by the Evaluator

Power-on Stalls

SCORE 0 1 2 3 4 5

Knowledge

PA.IV.F.K1-K3 Same as Power-off Stalls

Risk Management

PA.IV.F.R1-6 Same as Power-off Stalls

Skills

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

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 r**ecover 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 Vx or Vy**

PA.VII.C.S10 Return to the altitude, heading, and airspeed specified by the evaluator

Basic Instrument Maneuvers SCORE 0 1 2 3 4 5

Straight-and-Level Flight

Knowledge

PA.VIII.A.K1 Flight instruments as related to:

- PA.VIII.A.K1a Sensitivity, limitations, and potential errors in unusual attitudes
- PA.VIII.A.K1b Correlation (pitch instruments/bank instruments)
- PA.VIII.A.K1c Function and operation
- PA.VIII.A.K1d Proper instrument cross-check techniques

Risk Management

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

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**

Constant Airspeed Climbs

Skills

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**

Constant Airspeed Descents

Skills

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**

Turns to Headings

Skills

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**

Radio Communications, Navigation Systems/ Facilities, & Radar Services

SCORE 0 1 2 3 4 5

Basic Instrument Maneuvers

Knowledge

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

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

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**

Unusual Attitude Recovery SCORE 0 1 2 3 4 5

Basic Instrument Maneuvers

Knowledge

PA.VIII.A.K1 Flight instruments as related to:

- PA.VIII.A.K1a Sensitivity, limitations, and potential errors in unusual attitudes
- PA.VIII.A.K1b Correlation (pitch instruments/bank instruments)
- PA.VIII.A.K1c Function and operation
- PA.VIII.A.K1d Proper instrument cross-check techniques

Risk Management

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 recover

Skills

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

Systems & Equipment Malfunctions

SCORE 0 1 2 3 4 5

Knowledge

PA.IX.C.K1 Partial or complete power loss related to the specific powerplant, including:
- PA.IX.C.K1a Engine roughness or overheat
- PA.IX.C.K1b Carburetor or induction icing
- PA.IX.C.K1c Loss of oil pressure
- PA.IX.C.K1d Fuel starvation

PA.IX.C.K2 System and equipment malfunctions specific to the airplane, including:
- PA.IX.C.K2a Electrical malfunction
- PA.IX.C.K2b Vacuum/pressure and associated flight instrument malfunctions
- PA.IX.C.K2c Pitot/static system malfunction
- PA.IX.C.K2d Electronic flight deck display malfunction
- PA.IX.C.K2e Landing gear or flap malfunction
- PA.IX.C.K2f 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

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

PA.IX.C.S1 Describe appropriate action for simulated emergencies specified by the evaluator, from at least 3 of the elements or sub-elements listed in K1 through K5 above.

PA.IX.C.S2 Complete the appropriate checklist

Emergency Descent

SCORE 0 1 2 3 4 5

Knowledge

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

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

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

Emergency Approach & Landing (simulated)

SCORE 0 1 2 3 4 5

Knowledge

PA.IX.B.K1 Immediate action items and emergency procedures

PA.IX.B.K2 Airspeed, to include:

- PA.IX.B.K2a Importance of best glide speed and its relationship to distance
- PA.IX.B.K2b Difference between best glide speed and minimum sink speed
- PA.IX.B.K2c 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

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

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

After Landing, Parking & Securing

SCORE 0 1 2 3 4 5

Knowledge

P A.XII.A.K1	Airplane shutdown, securing, and postflight inspection
PA.XII.A.K2	Documenting in-flight/postflight discrepancies

Risk Management

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

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