



U.S. Department
of Transportation

**Federal Aviation
Administration**

FAA-S-8081-29
with Changes 1, 2, and 3

SPORT PILOT

Practical Test Standards

for

- **Airplane**
 - **Gyroplane**
 - **Glider**
 - **Flight Instructor**

December 2004

FLIGHT STANDARDS SERVICE
Washington, DC 20591

Section 2

Sport Pilot

Gyroplane

SECTION 2—CONTENTS

SPORT PILOT GYROPLANE

CHECKLISTS

Applicant's Practical Test Checklist	2-iii
Examiner's Practical Test Checklist	2-v

AREAS OF OPERATION

I. PREFLIGHT PREPARATION	2-1
A. Certificates and Documents	2-1
B. Airworthiness Requirements	2-1
C. Weather Information	2-2
D. Cross-Country Flight Planning	2-2
E. National Airspace System	2-3
F. Operation of Systems	2-3
G. Aeromedical Factors	2-4
H. Performance and Limitations	2-4
I. Principles of Flight	2-5
II. PREFLIGHT PROCEDURES	2-6
A. Preflight Inspection	2-6
B. Cockpit Management	2-6
C. Engine Starting	2-6
D. Taxiing	2-7
E. Before Takeoff Check	2-7
III. AIRPORT OPERATIONS	2-8
A. Radio Communications	2-8
B. Traffic Patterns	2-8
C. Airport Runway Markings and Lighting	2-9

IV. TAKEOFFS, LANDINGS, AND GO-AROUNDS	2-10
A. Normal and Crosswind Takeoff and Climb	2-10
B. Normal and Crosswind Approach and Landing	2-11
C. Soft-Field Takeoff and Climb	2-12
D. Soft-Field Approach and Landing	2-12
E. Go-Around/Rejected Landing	2-14
V. PERFORMANCE MANEUVER	2-15
A. Steep Turns	2-15
VI. GROUND REFERENCE MANEUVERS	2-16
A. Rectangular Course	2-16
B. S-Turns	2-16
C. Turns Around a Point	2-17
VII. NAVIGATION	2-18
A. Pilotage and Dead Reckoning	2-18
B. Diversion	2-18
C. Lost Procedures	2-18
VIII. FLIGHT AT SLOW AIRSPEEDS	2-19
A. Straight-and-Level, Turns, Climbs, and Descents at Slow Airspeeds	2-19
B. High Rates of Descent and Recovery	2-19
IX. EMERGENCY OPERATIONS	2-20
A. Emergency Approach and Landing	2-20
B. Power-off Approach and Accuracy Landing	2-20
C. Systems and Equipment Malfunctions	2-21
D. Emergency Equipment and Survival Gear	2-21
X. POSTFLIGHT PROCEDURES	2-22
A. After Landing, Parking, and Securing	2-22

APPLICANT'S PRACTICAL TEST CHECKLIST

APPOINTMENT WITH EXAMINER:

EXAMINER'S NAME _____

LOCATION _____

DATE/TIME _____

ACCEPTABLE AIRCRAFT

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

PERSONAL EQUIPMENT

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

PERSONAL RECORDS

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

EXAMINER'S PRACTICAL TEST CHECKLIST

APPLICANT'S NAME _____

LOCATION _____

DATE/TIME _____

I. PREFLIGHT PREPARATION

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

II. PREFLIGHT PROCEDURES

- A. Preflight Inspection
- B. Cockpit Management
- C. Engine Starting
- D. Taxiing
- E. Before Takeoff Check

III. AIRPORT OPERATIONS

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

IV. TAKEOFFS, LANDINGS, AND GO-AROUNDS

- A. Normal and Crosswind Takeoff and Climb
- B. Normal and Crosswind Approach and Landing
- C. Soft-Field Takeoff and Climb
- D. Soft-Field Approach and Landing
- E. Go-Around/Rejected Landing

V. PERFORMANCE MANEUVER

- A. Steep Turns

VI. GROUND REFERENCE MANEUVERS

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

VII. NAVIGATION

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

VIII. FLIGHT AT SLOW AIRSPEEDS

- A. Straight-and-Level, Turns, Climbs, and Descents at Slow Airspeeds
- B. High Rate of Descent and Recovery

IX. EMERGENCY OPERATIONS

- A. Emergency Approach and Landing
- B. Power-off Approach and Accuracy Landing
- C. Systems and Equipment Malfunctions
- D. Emergency Equipment and Survival Gear

X. POSTFLIGHT PROCEDURES

- A. After Landing, Parking, and Securing

I. AREA OF OPERATION: PREFLIGHT PREPARATION

A. TASK: CERTIFICATES AND DOCUMENTS

REFERENCES: 14 CFR parts 43, 61, 91; FAA-H-8083-3, FAA-H-8083-13, FAA-H-8083-25; Gyroplane Flight Manual/POH/FAA Operating Limitations.

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

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

B. TASK: AIRWORTHINESS REQUIREMENTS

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

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

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

C. TASK: WEATHER INFORMATION

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

Objective. To determine that the applicant:

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

D. TASK: CROSS-COUNTRY FLIGHT PLANNING

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

Objective. To determine that the applicant:

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

E. TASK: NATIONAL AIRSPACE SYSTEM

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

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

1. Sport pilot privileges applicable to the following classes of airspace:
 - a. Class B.
 - b. Class C.
 - c. Class D.
 - d. Class E.
 - e. Class G.
2. Special use and other airspace areas.
3. Temporary flight restrictions (TFRs).

F. TASK: OPERATION OF SYSTEMS

REFERENCES: FAA-H-8083-25; Gyroplane Flight Manual/POH.

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

1. Primary flight controls and trim.
2. Powerplant and propeller.
3. Rotors, including prerotator/spin-up control.
4. Landing gear, brakes, and steering.
5. Fuel, oil, hydraulic.
6. Electrical.
7. Avionics.
8. Pitot-static, vacuum/pressure, and associated flight instruments.

G. TASK: AEROMEDICAL FACTORS

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

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

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

H. TASK: PERFORMANCE AND LIMITATIONS

REFERENCES: FAA-H-8083-1, FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine the applicant:

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and data if appropriate, to determine performance and the adverse effects of exceeding limitations.
2. Understands the cause, effect, and avoidance procedure of “power pushover” and “pilot induced oscillation.”
3. Determines if weight and center of gravity will remain within limits during all phases of flight.
4. Describes the effects of atmospheric conditions on the gyroplane’s performance.
5. Determines whether the performance is within the gyroplane’s capabilities and operating limitations.
6. Explains the requirement to maintain sufficient airspeed rather than groundspeed when making downwind turns in close proximity to the ground.

I. TASK: PRINCIPLES OF FLIGHT

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine the applicant exhibits knowledge of at least three (3) of the following aerodynamic principles:

1. Autorotative airflow and reverse flow.
2. Blade flapping and coning.
3. Dissymmetry of lift.
4. Lateral stick force/position change with airspeed.
5. Load factor effects in level flight and turns.
6. Retreating blade stall.
7. Rotor system characteristics.
8. Stability and controllability.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

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

A. TASK: PREFLIGHT INSPECTION

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to a preflight inspection including which items must be inspected, for what reason, and how to detect possible defects.
2. Inspects the gyroplane by systematically following a prescribed checklist.
3. Verifies that the gyroplane is in condition for safe flight, notes any discrepancy, and determines if maintenance is required.

B. TASK: COCKPIT MANAGEMENT

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to efficient cockpit management procedures and related safety factors.
2. Organizes and arranges material and equipment in a manner that makes the items readily available.
3. Briefs the occupant on the use of safety belts, propeller and rotor blade avoidance, and emergency procedures.

C. TASK: ENGINE STARTING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to correct engine starting procedures and the effects of using incorrect starting procedures.
2. Demonstrates awareness of other persons and property during start.
3. Demonstrates proper rotor blade management while performing the correct starting procedure.
4. Prevents gyroplane movement during and after the engine start.
5. Completes the appropriate checklist.

D. TASK: TAXIING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to recommended taxi procedures, including rotor blade management and the effect of wind during taxiing.
2. Performs a brake check immediately after the gyroplane begins moving.
3. Controls direction and speed without excessive use of brakes.
4. Complies with airport markings, signals, clearances, and instructions.
5. Avoids other aircraft and hazards.
6. Conducts proper rotor blade management.
7. Properly positions the gyroplane for run-up considering other aircraft, surface conditions, and if applicable, existing wind conditions.

E. TASK: BEFORE TAKEOFF CHECK

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check, including the reasons for checking the items and how to detect malfunctions.
2. Positions the gyroplane properly considering other aircraft, surface conditions, and if applicable, existing wind conditions.
3. Divides attention inside and outside the cockpit.
4. Accomplishes the before takeoff checklist and ensures that the gyroplane is in safe operating condition.
5. Reviews takeoff performance airspeeds and expected takeoff distance.
6. Describes takeoff emergency procedures, to include low speed/high speed blade flap situations.
7. Ensures no conflict with traffic prior to takeoff.
8. Utilizes proper rotor spin-up procedure.
9. Completes the appropriate checklist.

III. AREA OF OPERATION: AIRPORT OPERATIONS

A. TASK: RADIO COMMUNICATIONS

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

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

Objective. To determine that the applicant:

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

B. TASK: TRAFFIC PATTERNS

REFERENCES: FAA-H-8083-3, FAA-H-8083-25; AC 90-66; AIM.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic patterns and shall include procedures at airports with CTAF, prevention of runway incursions, collision avoidance, wake turbulence avoidance, and wind shear.
2. Complies with proper local traffic pattern procedures.
3. Maintains proper spacing from other aircraft.
4. Corrects for wind drift to maintain the proper ground track.
5. Maintains orientation with the runway/landing area in use.
6. Maintains traffic pattern altitude, ± 100 feet, and the appropriate airspeed, ± 10 knots, if applicable.

C. TASK: AIRPORT RUNWAY MARKINGS AND LIGHTING

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

Objective. To determine that the applicant:

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

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

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

A. TASK: NORMAL AND CROSSWIND TAKEOFF AND CLIMB

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

NOTE: If a calm wind weather condition exists, the applicant's knowledge of the crosswind elements shall be evaluated through oral testing; otherwise, a crosswind takeoff and climb shall be demonstrated.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff and climb, including factors affecting performance.
2. Considering other traffic and wind conditions, determines where to pre-rotate rotor blades to appropriate RPM.
3. Maintains proper directional control during acceleration on the surface and manages rotor RPM.
4. Attains the proper lift-off attitude and airspeed.
5. Accelerates to appropriate climb airspeed, ± 5 knots.
6. Maintains takeoff power to a safe maneuvering altitude, then sets power, as appropriate.
7. Establishes and maintains proper ground track with crosswind correction, if necessary.
8. Remains aware of the possibility of wind shear and/or wake turbulence.

B. TASK: NORMAL AND CROSSWIND APPROACH AND LANDING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

NOTE: If a calm wind weather condition exists, the applicant's knowledge of the crosswind elements shall be evaluated through oral testing; otherwise, a crosswind approach and landing shall be demonstrated.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind approach and landing.
2. Considers the wind conditions, landing surface, and obstacles.
3. Selects a suitable touchdown point.
4. Establishes and maintains a stabilized approach at the recommended airspeed with gust correction factor applied, ± 5 knots.
5. Establishes and maintains proper ground track with crosswind correction, as necessary.
6. Remains aware of the possibility of wind shear and/or wake turbulence.
7. Makes smooth, timely, and correct control application during the flare and touchdown.
8. Touches down smoothly, at a reduced forward airspeed beyond and within 200 feet of a specified point with no appreciable drift, and with the longitudinal axis aligned with the intended landing path.
9. Maintains crosswind correction and directional control throughout the approach and landing sequence.

C. TASK: SOFT-FIELD TAKEOFF AND CLIMB

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to a soft-field takeoff and climb including factors affecting performance.
2. Considering other traffic and wind conditions, determines where to pre-rotate rotor blades to appropriate RPM.
3. Maintains proper directional control during acceleration on the surface and manages rotor RPM.
4. Lifts off and remains in ground effect while accelerating to recommended climb airspeed.
5. Maintains recommended climb airspeed, ± 5 knots.
6. Maintains takeoff power to a safe maneuvering altitude, then sets power, as appropriate.
7. Establishes and maintains proper ground track with crosswind correction, if necessary.
8. Remains aware of the possibility of wind shear and/or wake turbulence.

D. TASK: SOFT-FIELD APPROACH AND LANDING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to a soft-field approach and landing.
2. Considers the wind conditions, landing surface, and obstacles.
3. Selects a suitable touchdown area.
4. Establishes and maintains a stabilized approach at the recommended airspeed, with gust correction factor applied, ± 5 knots.
5. Establishes and maintains proper ground track with crosswind correction, as necessary.
6. Makes smooth, timely, and correct control application during the flare and touchdown.
7. Touches down smoothly, at a minimum forward airspeed with no appreciable drift, and with the longitudinal axis aligned with the intended landing path.
8. Maintains sufficient speed to taxi on soft surface.

E. TASK: GO-AROUND/REJECTED LANDING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to a go-around and when it is necessary.
2. Makes a timely decision to discontinue the approach to landing.
3. Applies appropriate power and establishes a climb at the appropriate airspeed, ± 5 knots.
4. Maintains takeoff power to a safe maneuvering altitude, then sets climb power.
5. Maintains proper ground track with crosswind correction, as necessary.

V. AREA OF OPERATION: PERFORMANCE MANEUVER

A. TASK: STEEP TURNS

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns.
2. Selects an altitude that will allow the TASK to be performed no lower than 600 feet AGL.
3. Establishes the manufacturer's recommended airspeed or if one is not stated the examiner may designate a safe airspeed.
4. Rolls into a coordinated 360° turn; maintains a 30° bank, $\pm 5^\circ$; and rolls out on the entry heading, $\pm 10^\circ$.
5. Performs the task in the opposite direction, as specified by the examiner.
6. Divides attention between gyroplane control and orientation.
7. Maintains the entry altitude, ± 100 feet, and airspeed, ± 10 knots.

VI. AREA OF OPERATION: GROUND REFERENCE MANEUVERS

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

NOTE: For single-seat applicants, the examiner shall select at least one ground reference maneuver.

A. TASK: RECTANGULAR COURSE

REFERENCE: FAA-H-8083-21.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to a rectangular course.
2. Selects an appropriate ground reference based on wind direction and emergency landing areas.
3. Plans the maneuver so as to not descend below 600 feet above the ground at an appropriate distance from the selected reference course, 45° to the downwind leg.
4. Establishes and maintains a proper ground track with crosswind correction, as necessary, around a rectangular course.
5. Divides attention between gyroplane control and orientation.
6. Maintains the entry altitude throughout the maneuver, ± 100 feet and airspeed, ± 10 knots.

B. TASK: S-TURNS

REFERENCE: FAA-H-8083-21.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to S-turns.
2. Selects an appropriate reference line based on wind direction and emergency landing areas.
3. Plans the maneuver so as to not descend below 600 feet above the ground perpendicular to the selected reference line, downwind.
4. Applies adequate wind-drift correction to track a constant radius turn on each side of the selected reference line.
5. Reverses the direction of turn directly over the selected reference line.
6. Divides attention between gyroplane control, orientation, and clearing of other aircraft.
7. Maintains the entry altitude throughout the maneuver, ± 100 feet and airspeed, ± 10 knots.

C. TASK: TURNS AROUND A POINT

REFERENCE: FAA-H-8083-21.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to turns around a point.
2. Selects an appropriate reference point based on wind direction and emergency landing areas.
3. Plans the maneuver so as to not descend below 600 feet above the ground, at an appropriate distance from the reference point.
4. Applies adequate wind-drift correction to track a constant radius turn around the selected reference point.
5. Divides attention between gyroplane control, orientation, and clearing of other aircraft.
6. Exits at the point of entry heading $\pm 15^\circ$.
7. Maintains the entry altitude throughout the maneuver, ± 100 feet and airspeed, ± 10 knots.

VII. AREA OF OPERATION: NAVIGATION

A. TASK: PILOTAGE AND DEAD RECKONING

REFERENCE: FAA-H-8083-25.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to pilotage and dead reckoning, as appropriate.
2. Follows the preplanned course by reference to landmarks.
3. Identifies landmarks by relating surface features to chart symbols.
4. Verifies the gyroplane's position with 3 nautical miles of the flight-planned route.
5. Determines there is sufficient fuel to complete the planned flight, if not, has an alternate plan.
6. Maintains the appropriate altitude, ± 200 feet and headings, $\pm 15^\circ$.

B. TASK: DIVERSION

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

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to diversion.
2. Selects an appropriate alternate airport or landing area and route.
3. Determines there is sufficient fuel to fly to the alternate airport or landing area.
4. Turns to and establishes a course to the selected alternate destination.
5. Maintains the appropriate altitude, ± 200 feet and headings, $\pm 15^\circ$.

C. TASK: LOST PROCEDURES

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

Objective. To determine that the applicant:

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

VIII. AREA OF OPERATION: FLIGHT AT SLOW AIRSPEEDS

A. TASK: STRAIGHT-AND-LEVEL, TURNS, CLIMBS, AND DESCENTS AT SLOW AIRSPEEDS

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to flight characteristics and controllability associated with maneuvering during slow airspeed.
2. Selects a safe altitude no lower than 600 feet AGL.
3. Establishes and maintains minimum level flight speed in straight-and-level flight, turns, climbs, and descents, as directed by the examiner.
4. Divides attention between gyroplane control and orientation.
5. Maintains the specified altitude, ± 100 feet; specified heading $\pm 10^\circ$; and specified airspeed ± 5 knots.

B. TASK: HIGH RATES OF DESCENT AND RECOVERY

REFERENCE: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge by explaining the aerodynamic factors and flight situations that may result in high rates of descents, and the procedures used for recovery.
2. Selects an entry altitude that will allow the recoveries to be completed no lower than 600 feet AGL.
3. Establishes a high rate of descent at a minimum airspeed with power below cruise setting.
4. Recognizes high rates of descent and recovers promptly to a best glide airspeed.
5. Recovers by demonstrating proper power management and returns to cruise airspeed.
6. Maintains a specified heading, $\pm 10^\circ$.

IX. AREA OF OPERATION: EMERGENCY OPERATIONS

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

A. TASK: EMERGENCY APPROACH AND LANDING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to emergency approach and landing with a power failure.
2. Establishes and maintains the appropriate airspeed, ± 5 knots.
3. Selects a suitable landing area, considering the possibility of an actual forced landing.
4. Plans and follows a flight pattern to the selected landing area, considering altitude, wind, terrain, obstacles, and other factors.
5. Attempts to determine the reason for the simulated malfunction, if time permits.
6. Completed the prescribed checklist, if applicable.

B. TASK: POWER-OFF APPROACH AND ACCURACY LANDING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to performing a power-off approach and accuracy landing.
2. Selects a reference point in the landing area for touchdown and reduces power to a zero-thrust position.
3. Adjusts glide path to terminate approach and touch down beyond and within 300 feet of the reference point.

C. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to causes, indications, and pilot actions for various systems and equipment malfunctions.
2. Analyzes the situation and takes action, appropriate to the gyroplane used for the practical test, in at least three (3) of the following areas, if applicable—
 - a. engine/oil and fuel.
 - b. electrical.
 - c. carburetor or induction icing.
 - d. smoke and/or fire.
 - e. flight control/trim.
 - f. pitot static/vacuum and associated flight instruments.
 - g. rotor and/or propeller.
 - h. ballistic recovery system malfunction, if applicable.
 - i. any other emergency unique to the gyroplane flown.

D. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR

REFERENCE: Gyroplane Flight Manual.

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

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

X. AREA OF OPERATION: POSTFLIGHT PROCEDURES

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

A. TASK: AFTER LANDING, PARKING, AND SECURING

REFERENCES: FAA-H-8083-21; Gyroplane Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to after landing, taxi, parking, and securing procedures.
2. Maintains directional control after touchdown while decelerating to an appropriate speed.
3. Observes runway hold lines and other surface control markings and lighting.
4. Parks in an appropriate area, considering the safety of nearby persons and property.
5. Proper managing of rotor system and propeller for existing conditions, as applicable.
6. Follows the appropriate procedure for engine shutdown.
7. Completes the appropriate checklist.
8. Conducts a post flight inspection and secures the aircraft.