

NOTE

This book establishes the Recreational Pilot Powered Parachute Practical Test Standard. The testing standard is to be used for recreational pilot certification in powered parachutes. The standard will become effective when the recommended change to 14 CFR part 61 is approved establishing a recreational pilot certificate for this category.

FOREWORD

The Recreational Pilot Powered Parachute Practical Test Standard (PTS) book has been published by the Federal Aviation Administration (FAA) to establish the standard for recreational pilot certification practical tests for the powered parachute category. FAA inspectors and designated pilot examiners shall conduct practical tests in compliance with this standard. Powered parachute pilots exercising flight instructor privileges and applicants should find this standard helpful during training and when preparing for practical tests.

Director, Flight Standards Service

CONTENTS

INTRODUCTION	1
General Information.....	1
Practical Test Standard Concept.....	2
Recreational Pilot Powered Parachute Practical Test	
Standard Book Description.....	2
Practical Test Standard Description	2
Use of the Practical Test Standard Book	3
Recreational Pilot Powered Parachute Practical Test	
Prerequisites	4
Aircraft and Equipment Required for	
the Practical Test.....	5
Examiner Responsibility	5
Satisfactory Performance	5
Unsatisfactory Performance	6
Flight Instructor Responsibility	6
Applicant's Use of Checklists	7
Use of Distractions During Practical Tests.....	7
Metric Conversion Initiative	7
Positive Exchange of Flight Controls	7
CONTENTS.....	1-i
APPLICANT'S PRACTICAL TEST CHECKLIST	1-iii
EXAMINER'S PRACTICAL TEST CHECKLIST	1-v

AREAS OF OPERATION:

I.	PREFLIGHT PREPARATION	1-1
II.	PREFLIGHT PROCEDURES	1-4
III.	AIRPORT OPERATIONS.....	1-6
IV.	TAKEOFFS, LANDINGS, AND GO-AROUND	1-7
V.	PERFORMANCE MANEUVERS	1-9
VI.	GROUND REFERENCE MANEUVERS.....	1-10
VII.	NAVIGATION	1-11
VIII.	EMERGENCY OPERATIONS	1-12
IX.	POSTFLIGHT PROCEDURES	1-13

INTRODUCTION

General Information

The Flight Standards Service of the Federal Aviation Administration (FAA) has developed this practical test book as the standard to be used by FAA inspectors and designated pilot examiners when conducting recreational pilot powered parachute practical tests. Flight instructors are expected to use this book when preparing applicants for practical tests. Applicants should be familiar with this book and refer to this standard during their training.

Information considered directive in nature is described in this practical test book in terms such as “shall” and “must” indicating the actions are mandatory. Guidance information is described in terms such as “should” and “may” indicating the actions are desirable or permissive, but not mandatory.

The FAA gratefully acknowledges the valuable assistance provided by many individuals and companies who contributed their time and talent in assisting with the development of this practical test standard.

This practical test standard may be accessed through the FedWorld Information System by computer modem at 703-321-3339. It may also be accessed on the Internet at <http://www.fedworld.gov/pub/faa-att/faa-att.htm>. This address goes to the index of training and testing files in the FAA-ATT Library on FedWorld. Subsequent changes to this standard, in accordance with AC 60-27, Announcement of Availability: Changes to Practical Test Standards, will be available through FedWorld and then later incorporated into a printed revision.

This publication may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Comments regarding this publication should be sent to:

U.S. Department of Transportation
Federal Aviation Administration
Flight Standards Service
Airman Testing Standards Branch, AFS-630
P.O. Box 25082
Oklahoma City, OK 73125

Practical Test Standard Concept

Title 14 of the Code of Federal Regulations (14 CFR) part 61 specifies the areas in which knowledge and skill shall be demonstrated by an applicant before issuance of a recreational pilot certificate. This regulation provides the flexibility that permits the FAA to publish practical test standards containing specific TASKS in which competency shall be demonstrated. The FAA will revise this book whenever it is determined that changes are needed in the interest of safety. Adherence to the provisions of the regulations and the practical test standards is mandatory for evaluation of recreational pilot applicants.

Recreational Pilot Powered Parachute Practical Test Standard Book Description

The Recreational Pilot Powered Parachute Practical Test Standard includes the AREAS OF OPERATION and TASKS for the issuance of a recreational pilot certificate.

Practical Test Standard Description

AREAS OF OPERATION are phases of the practical test arranged in a logical sequence within each standard. They begin with preflight preparation and end with postflight procedures. TASKS are knowledge areas, flight procedures, or maneuvers appropriate to an AREA OF OPERATION. However, the examiner may conduct the practical test in any sequence that results in a complete and efficient test. The roman numerals preceding each AREA OF OPERATION relate that AREA OF OPERATION to the corresponding regulatory requirement.

TASKS represent knowledge, flight procedures, and/or maneuvers appropriate to an AREA OF OPERATION.

REFERENCE identifies the publication(s) that describes the TASK. Descriptions of TASKS are not included in the standard because this information can be found in the REFERENCES listed for each TASK. Publications other than those listed may be used as references if their content conveys substantially the same meaning as the referenced publication. REFERENCES listed in this book include the current revisions of the following publications:

14 CFR part 1	Definitions and Abbreviations
14 CFR part 43	Maintenance, Preventive Maintenance, Rebuilding, and Alteration
14 CFR part 61	Certification: Pilots and Flight Instructors
14 CFR part 91	General Operating and Flight Rules

NTSB 830	Notification and Reporting of Aircraft Accidents and Incidents
AC 00-2	Advisory Circular Checklist
AC 00-6	Aviation Weather
AC 00-45	Aviation Weather Services
AC 61-21	Flight Training Handbook
AC 61-23	Pilot's Handbook of Aeronautical Knowledge
AC 61-65	Certification: Pilots and Flight Instructors
AC 61-84	Role of Preflight Preparation
AC 61-115	Positive Exchange of Flight Controls Program
AC 90-48	Pilots' Role in Collision Avoidance
AC 90-66	Recommended Standard Traffic Patterns and Practices for Aeronautical Operations at Airports without Operating Control Towers
AC 91-13	Cold Weather Operation of Aircraft
AC 91-23	Pilot's Weight and Balance Handbook
A/FD	Airport/Facility Directory
AIM	Aeronautical Information Manual
Other	Powered Parachute Flight Manual Navigation Charts

Each TASK has an Objective consisting of a series of elements. The examiner determines that the applicant meets the TASK Objective through the demonstration of competency in various elements of knowledge and/or skill. The Objectives of TASKS in certain AREAS OF OPERATION, include only knowledge elements.

Use of the Practical Test Standard Book

The FAA requires that all practical tests be conducted in accordance with the appropriate Recreational Pilot Practical Test Standard and the policies set forth in the INTRODUCTION. Recreational pilot applicants shall be evaluated in **ALL** TASKS included in the AREAS OF OPERATION of this practical test standard.

In preparation for the practical test, the examiner shall develop a written "plan of action." The "plan of action" shall include all TASKS (unless noted otherwise) in each AREA OF OPERATION. Each TASK shall be evaluated in its entirety. However, if the elements in one TASK have already been evaluated in another TASK, they need not be repeated.

The examiner is not required to follow the precise order in which the AREAS OF OPERATION and TASKS appear in this book. The examiner may change the sequence or combine TASKS with similar Objectives to meet the orderly and efficient flow of the practical test. For example, a rectangular course may be combined with an airport traffic pattern. However, the Objectives of all TASKS must be demonstrated and evaluated at some time during the practical test. The examiner's "plan of action" shall include the order and combination of TASKS to be demonstrated by the applicant in a manner that will result in an efficient and valid test.

Examiners shall place special emphasis upon areas of aircraft operation that are most critical to flight safety. Among these areas are precise aircraft control and sound judgment in decision making. Although these areas may or may not be shown under each TASK, they are essential to flight safety and shall receive careful evaluation throughout the practical test. THE EXAMINER SHALL ALSO EMPHASIZE, LOW LEVEL WIND SHEAR.

Recreational Pilot Powered Parachute Practical Test Prerequisites

An applicant for the recreational pilot powered parachute practical test is required by Title 14 of the Code of Federal Regulations (14 CFR) to:

1. pass the appropriate recreational pilot knowledge test since the beginning of the 24th month before the month in which the practical test is taken;
2. obtain the applicable instruction and aeronautical experience prescribed for the recreational pilot certificate or training sought;
3. hold at least a current third-class medical certificate issued under 14 CFR part 67;
4. meet the age requirement for the issuance of the certificate or rating sought and;
5. obtain a written statement from an appropriately certificated flight instructor certifying that the applicant has been given flight instruction in preparation for the practical test within 60 days preceding the date of application. The statement shall also state that the instructor finds the applicant competent to pass the practical test and that the applicant has satisfactory knowledge of the subject area(s) in which a deficiency, if any, was indicated by the airman knowledge test report.

NOTE: AC 61-65, Certification: Pilots and Flight Instructors, states that the instructor may sign the instructor's recommendation on the reverse side of FAA Form 8710-1, Airman Certificate and/or Rating Application, in lieu of the previous statement, provided all appropriate 14 CFR part 61 requirements are substantiated by reliable records.

Aircraft and Equipment Required for the Practical Test

The applicant is required by 14 CFR part 61, section 61.45, to provide an appropriate airworthy, certificated aircraft for use during the practical test. The aircraft must be equipped for, and its operating limitations must not prohibit, the performance of all TASKS required on the test.

Examiner¹ Responsibility

The examiner conducting the practical test is responsible for determining that the applicant meets the acceptable standards of knowledge and skill of each TASK within the practical test standard. The examiner makes this determination by accomplishing the Objective for each selected TASK.

Although it is the examiner's primary concern to observe the applicant's ability to skillfully and safely operate the aircraft, oral questioning may be used at any time during the practical test to determine that the applicant has a comprehensive knowledge of the TASKS and their related safety factors. During the flight portion of the practical test, the examiner shall evaluate use of visual scanning and collision avoidance procedures.

Satisfactory Performance

Satisfactory performance to meet the requirements for certification is based on the applicant's ability to safely:

1. perform the approved AREAS OF OPERATION for the certificate or rating sought within the approved standard;
2. demonstrate mastery of the aircraft with the successful outcome of each task performed never seriously in doubt;
3. demonstrate sound judgment in aeronautical decision making.

¹ The word "examiner" is used throughout the standard to denote either the FAA inspector or FAA designated pilot examiner who conducts an official practical test.

Unsatisfactory Performance

If, in the judgment of the examiner, the applicant does not meet the standards of performance of any TASK performed, the associated AREA OF OPERATION is failed and therefore, the practical test is failed. The examiner or applicant may discontinue the test any time after the failure of an AREA OF OPERATION makes the applicant ineligible for the certificate or rating sought. The test may be continued only with the consent of the applicant. If the test is either continued or discontinued, the applicant is entitled credit for only those TASKS satisfactorily performed. However, during the retest and at the discretion of the examiner, any TASK may be re-evaluated, including those previously passed.

Typical areas of unsatisfactory performance and grounds for disqualification are:

1. Any action or lack of action by the applicant that requires corrective intervention by the examiner to maintain safe flight.
2. Failure to use proper and effective visual scanning techniques to clear the area before and while performing maneuvers.
3. Consistently exceeding tolerances stated in the Objectives.
4. Failure to take prompt corrective action when tolerances are exceeded.

When a disapproval notice is issued, the examiner shall record the applicant's unsatisfactory performance in terms of AREAS OF OPERATION appropriate to the practical test conducted.

Flight Instructor Responsibility

An appropriately rated flight instructor is responsible for training the recreational pilot applicant to acceptable standards in **all** subject matter areas, procedures, and maneuvers included in the TASKS within the recreational pilot practical test standard. The instructor is responsible for endorsing each training area when satisfied that the applicant is knowledgeable and skilled. Because of the impact of their teaching activities in developing safe, proficient pilots, flight instructors should exhibit a high level of knowledge, skill, and ability.

Additionally, the flight instructor must certify that the applicant is able to perform safely as a recreational pilot and is competent to pass the required practical test.

Throughout the applicant's training, the flight instructor is responsible for emphasizing the performance of effective visual scanning, collision avoidance, and runway incursion avoidance procedures.

Applicant's Use of Checklists

Throughout the practical test, the applicant is evaluated on the use of an appropriate checklist. Proper use is dependent on the specific TASK being evaluated. The situation may be such that the use of the checklist, while accomplishing elements of an Objective, would be either unsafe or impractical, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished would be considered appropriate. Use of a checklist should also take into consideration visual scanning and division of attention at all times.

Use of Distractions During Practical Tests

Numerous studies indicate that many accidents have occurred when the pilot has been distracted during critical phases of flight. To evaluate the pilot's ability to utilize proper control technique, the examiner shall cause a realistic distraction during the flight portion of the practical test to evaluate the applicant's ability to divide attention while maintaining safe flight.

Metric Conversion Initiative

To assist the pilots in understanding and using the metric measurement system, the practical test standards refer to the metric equivalent of various altitudes throughout. The inclusion of meters is intended to familiarize pilots with its use. The metric altimeter is arranged in 10 meter increments; therefore, when converting from feet to meters, the exact conversion, being too exact for practical purposes, is rounded to the nearest 10 meter increment or even altitude as necessary.

Positive Exchange of Flight Controls

During flight training, there must always be a clear understanding between students and flight instructors who has control of the aircraft. Prior to flight, a briefing should be conducted that includes the procedure for the exchange of flight controls. A positive three-step process in the exchange of flight controls between pilots is a proven procedure and one that is strongly recommended.

When the instructor wishes the student to take control of the aircraft, he/she will say "You have the flight controls." The student acknowledges immediately by saying, "I have the flight controls." The flight instructor again says, "You have the flight controls." When control is returned to the instructor, follow the same procedure. A visual check is recommended to verify that the exchange has occurred. There should never be any doubt as to who is flying the aircraft.

CONTENTS

CHECKLISTS:

Applicant's Practical Test Checklist	1-iii
Examiner's Practical Test Checklist	1-v

AREAS OF OPERATION:

I. PREFLIGHT PREPARATION

A. CERTIFICATES AND DOCUMENTS.....	1-1
B. WEATHER INFORMATION	1-1
C. NATIONAL AIRSPACE SYSTEM	1-2
D. FLIGHT PLANNING.....	1-2
E. PERFORMANCE AND LIMITATIONS	1-2
F. OPERATION OF SYSTEMS	1-3
G. AEROMEDICAL FACTORS	1-3

II. PREFLIGHT PROCEDURES

A. PREFLIGHT INSPECTION	1-4
B. ENGINE STARTING.....	1-4
C. CANOPY INFLATION AND TAXIING	1-4
D. BEFORE TAKEOFF CHECK.....	1-5

III. AIRPORT OPERATIONS

A. AIRPORT AND RUNWAY MARKINGS AND LIGHTING.....	1-6
B. TRAFFIC PATTERNS	1-6

IV. TAKEOFFS, LANDINGS, AND GO-AROUND

A. NORMAL AND CROSSWIND TAKEOFF	1-7
B. NORMAL AND CROSSWIND APPROACH AND LANDING..	1-7
C. GO-AROUND	1-8

V. PERFORMANCE MANEUVERS

A. STRAIGHT-AND-LEVEL FLIGHT	1-9
B. CLIMBS AND DESCENTS	1-9
C. LEVEL TURNS	1-9

VI. GROUND REFERENCE MANEUVERS

RECTANGULAR COURSE.....	1-10
-------------------------	------

VII. NAVIGATION

PILOTAGE..... 1-11

VIII. EMERGENCY OPERATIONS

A. ENGINE FAILURE ON TAKEOFF (SIMULATED) 1-12
B. EMERGENCY APPROACH AND LANDING
(SIMULATED) 1-12

IX. POSTFLIGHT PROCEDURES

A. AFTER LANDING 1-13
B. PARKING AND SECURING..... 1-13

APPLICANT'S PRACTICAL TEST CHECKLIST RECREATIONAL PILOT - POWERED PARACHUTE

APPOINTMENT WITH EXAMINER:

EXAMINER'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 Flight Manual

PERSONAL EQUIPMENT

- PTS
- Current Aeronautical Charts
- Flight Plan Forms
- Current AIM

PERSONAL RECORDS

- Identification - Photo/Signature ID
- Pilot Certificate
- Current and Appropriate Medical Certificate or Statement
- Completed FAA Form 8710-1, Airman Certificate and/or Rating Application with Instructor's Signature
- AC Form 8080-2, Airman Computer Test Report
- Pilot Logbook with Appropriate Instructor Endorsements
- FAA Form 8060-5, Notice of Disapproval (if applicable)
- Approved School Graduation Certificate (if applicable)
- Examiner's Fee (if applicable)

**EXAMINER'S PRACTICAL TEST CHECKLIST
RECREATIONAL PILOT - POWERED PARACHUTE**

APPLICANT'S NAME _____

LOCATION _____

DATE/TIME _____

I. PREFLIGHT PREPARATION

- **A.** Certificates and Documents
- **B.** Weather Information
- **C.** National Airspace System
- **D.** Flight Planning
- **E.** Performance and Limitations
- **F.** Operation of Systems
- **G.** Aeromedical Factors

II. PREFLIGHT PROCEDURES

- **A.** Preflight Inspection
- **B.** Engine Starting
- **C.** Canopy Inflation and Taxiing
- **D.** Before Takeoff Check

III. AIRPORT OPERATIONS

- **A.** Airport and Runway Markings and Lighting
- **B.** Traffic Patterns

IV. TAKEOFFS, LANDINGS, AND GO-AROUND

- **A.** Normal and Crosswind Takeoff
- **B.** Normal and Crosswind Approach and Landing
- **C.** Go-Around

V. PERFORMANCE MANEUVERS

- **A.** Straight-and-Level Flight
- **B.** Climbs and Descents
- **C.** Level Turns

VI. GROUND REFERENCE MANEUVERS

- Rectangular Course

VII. NAVIGATION

- Pilotage

VIII. EMERGENCY OPERATIONS

- **A.** Engine Failure On Takeoff (Simulated)
- **B.** Emergency Approach and Landing (Simulated)

IX. POSTFLIGHT PROCEDURES

- **A.** After Landing
- **B.** Parking and Securing

I. AREA OF OPERATION: PREFLIGHT PREPARATION

A. TASK: CERTIFICATES AND DOCUMENTS

REFERENCES: 14 CFR parts 43, 61, 91; AC 61-21, AC 61-23; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of certificates and documents by explaining—
 - a. pilot certificate privileges and limitations.
 - b. medical statement.
 - c. pilot logbook or flight record, required entries.
2. Exhibits knowledge of the elements related to certificates and documents by locating and explaining—
 - a. airworthiness and registration certificates.
 - b. operating limitations, placards, instrument markings, handbooks, and manuals.
 - c. weight-and-balance data.
 - d. aircraft maintenance/inspection records (including airworthiness directives).

B. TASK: WEATHER INFORMATION

REFERENCES: AC 00-6, AC 00-45, AC 61-23, AC 61-84; AIM.

Objective. To determine that the applicant exhibits knowledge of the elements of weather information by explaining:

1. Importance of a thorough weather check.
2. Sources available for obtaining weather information.
3. Use of weather reports, forecasts, and charts.
4. Use of PIREP's, SIGMET's, and AIRMET's.
5. Recognition of aviation weather hazards and their effects on powered parachute operations.
6. Factors to be considered in making a "go/no go" decision.

C. TASK: NATIONAL AIRSPACE SYSTEM

REFERENCES: 14 CFR part 91; Navigation Charts; AIM.

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

1. Definitions and dimensions of Class A, B, C, D, E, and G.
2. Basic VFR Weather Minimums – for all classes of airspace, pilot certification, and equipment requirements.
3. Special use airspace and other airspace areas.

D. TASK: FLIGHT PLANNING

REFERENCES: AC 61-21, AC 61-23, AC 61-84; Navigation Charts; Airport/Facility Directory; AIM.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of flight planning for a flight of at least 10 nautical miles, appropriate to the powered parachute used for the flight test.
2. Uses appropriate and current charts.
3. Plots a course for intended route of flight based on winds aloft.
4. Identifies airspace, obstructions, and terrain features.
5. Extracts and applies pertinent information from NOTAM's, Airport/Facility Directory, AIM, and real-time weather reports.

E. TASK: PERFORMANCE AND LIMITATIONS

REFERENCES: AC 61-21, AC 61-23, AC 61-84, AC 91-23; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of performance and limitations of the aircraft by explaining the use of appropriate data from the manufacturer, including determination of performance in various phases of flight.
2. Computes weight and center of gravity, and determines if they are within limits.
3. Makes a competent decision on whether the required performance is within the operating limitation of the aircraft when considering density altitude, wind, terrain, and other pertinent conditions.

F. TASK: OPERATION OF SYSTEMS

REFERENCE: Powered Parachute Flight Manual.

Objective. To determine that the applicant exhibits knowledge of the elements of the operation of systems on the powered parachute provided for the practical test by explaining at least three of the following:

1. Canopy/riser and control system.
2. Flight instruments and engine instruments.
3. Landing gear.
4. Engine and propeller.
5. Fuel, oil, electrical and coolant system (if liquid cooled).
6. Avionics and auxiliary equipment, as installed.

G. TASK: AEROMEDICAL FACTORS

REFERENCES: AC 61-21; AIM.

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

1. Symptoms, causes, effects, and corrective actions of at least three 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.
2. Effects of alcohol and drugs, including over-the-counter drugs.
3. Effects of nitrogen excesses during scuba dives upon a pilot and/or passenger in flight.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

A. TASK: PREFLIGHT INSPECTION

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of preflight inspection, including which items must be inspected, for what reason, and how to detect possible defects.
2. Inspects the powered parachute with reference to the checklist.
3. Verifies that canopy and riser system is laid out properly and in condition for inflation.

B. TASK: ENGINE STARTING

REFERENCES: AC 61-21, AC 61-23, AC 91-13; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of engine starting, by observing safety precautions related to starting, considering open hangars, other aircraft, and the safety of nearby persons and property on the ramp.
2. Accomplishes the correct starting procedure to include:
 - a. proper adjustment of engine controls.
 - b. avoiding excessive engine RPM and temperatures.
 - c. checking engine instruments after engine start.
3. Prevents movement of aircraft during and after start.

C. TASK: CANOPY INFLATION AND TAXIING

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of canopy inflation and taxiing.
2. Makes smooth and appropriate throttle applications as the canopy transitions from ground pickup through maximum drag to taxi position.

3. Performs a brake check (if so equipped) shortly after the canopy is fully inflated.
4. Complies with airport markings, signals, and ATC clearances.
5. Avoids other aircraft and hazards.

D. TASK: BEFORE TAKEOFF CHECK

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of the before takeoff check.
2. Divides attention between aircraft control and airport environment.
3. Ensures that engine temperatures and pressures are suitable for takeoff.
4. Accomplishes before takeoff check and confirms that canopy is fully inflated, and suspension lines are straight with no twists or tangles.
5. Ensures no conflict with traffic prior to taxiing into position for takeoff.

III. AREA OF OPERATION: AIRPORT OPERATIONS

A. TASK: AIRPORT AND RUNWAY MARKINGS AND LIGHTING

REFERENCES: AC 61-21; AIM.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of airport and runway markings and lighting.
2. Identifies and interprets airport and taxi-way markings.
3. Identifies and interprets airport lighting aids.

B. TASK: TRAFFIC PATTERNS

REFERENCES: AC 61-21, AC 61-23, AC 90-66; AIM.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of traffic patterns including consideration of wind shear, and collision and wake turbulence avoidance.
2. Complies with traffic pattern procedures.
3. Maintains proper spacing from other traffic.
4. Maintains orientation with the runway or landing area to be used, correcting for wind drift to maintain proper ground track.
5. Establishes a final approach at an appropriate distance from the runway or landing area.
6. Maintains appropriate traffic pattern altitude, ± 100 feet (30 meters).

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

A. TASK: NORMAL AND CROSSWIND TAKEOFF

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

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of a normal and crosswind takeoff.
2. Verifies wind direction, clears the area, and taxies into position for takeoff.
3. Advances throttle smoothly to takeoff power, rechecks engine instruments.
4. Checks canopy, ensuring that all end cells are fully inflated and in condition for takeoff.
5. Accelerates to V_{lof} , while maintaining directional control on the runway.
6. Maintains directional control after lift-off and proper wind-drift correction during climb.

B. TASK: NORMAL AND CROSSWIND APPROACH AND LANDING

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

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of a normal and crosswind approach and landing.
2. Considers wind conditions, landing surface and obstructions, and selects the most suitable touchdown point.
3. Establishes and maintains approach angle with power as necessary.
4. Makes smooth, timely, and proper control application during transition from approach to touchdown.

5. Touches down smoothly at approximate stalling speed, at or within 100 feet (30 meters) beyond a specified point, with no drift, and with aircraft's longitudinal axis aligned with the center of the runway.
6. Maintains directional control after landing.

C. TASK: GO-AROUND

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of go-around.
2. Makes a timely decision to discontinue the approach to landing.
3. Applies takeoff power immediately and transitions to a climb attitude.
4. Coordinates use of power and flight controls to effect a smooth transition to a climb attitude.
5. Maintains takeoff power to a safe maneuvering altitude.
6. Flies appropriate traffic pattern.

V. AREA OF OPERATION: PERFORMANCE MANEUVERS

A. TASK: STRAIGHT-AND-LEVEL FLIGHT

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant

1. Exhibits knowledge of the elements of straight-and-level flight.
2. Uses the flight controls in a smooth, coordinated manner with minimum pitching and yawing.
3. Maintains specified altitude, ± 100 feet (30 meters).
4. Maintains specified heading within, $\pm 20^\circ$.

B. TASK: CLIMBS AND DESCENTS

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of climbs and descents.
2. Maintains smooth control application within $\pm 20^\circ$ heading and ± 100 feet (30 meters) altitude in the performance of the climbs and descents.
3. Enters straight climbs and descents to predetermined altitudes.
4. Enters climbing and descending turns to predetermined headings and altitudes.

C. TASK: LEVEL TURNS

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to level turns.
2. Enters, maintains, and rolls out of level turns with smooth, coordinated control application to a specified heading ($\pm 20^\circ$), and altitude, ± 100 feet (30 meters).

VI. AREA OF OPERATION: GROUND REFERENCE MANEUVERS

TASK: RECTANGULAR COURSE

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of a rectangular course.
2. Determines wind direction and speed.
3. Selects ground reference area with an emergency landing area within gliding distance.
4. Plans the maneuver so as to enter at traffic pattern altitude, at an appropriate distance from the selected reference area, and at 45° to the downwind leg, with the first circuit to the left.
5. Applies adequate wind-drift correction during straight-and-turning flight to maintain a constant ground track around the rectangular reference area.
6. Divides attention between coordinated aircraft control and the ground track.
7. Exits at the point of entry at the same altitude and airspeed at which the maneuver was started, and reverses course as directed by the examiner.
8. Maintains altitude, ± 100 feet (30 meters).

VII. AREA OF OPERATION: NAVIGATION

TASK: PILOTAGE

REFERENCES: AC 61-21, AC 61-23, AC 61-84.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of pilotage.
2. Navigates a preplanned course by means of identifying landmarks and relating surface features to chart symbols.
3. Verifies aircraft's position within 2 nautical miles of the flight planned route at all times.
4. Maintains appropriate altitude, ± 100 feet (30 meters).

VIII. AREA OF OPERATION: EMERGENCY OPERATIONS

A. TASK: ENGINE FAILURE ON TAKEOFF (SIMULATED)

REFERENCE: Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of engine failure on takeoff.
2. Establishes and maintains recommended best-glide attitude.
3. Selects a suitable emergency landing area within gliding distance.
4. Plans and follows a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.
5. Attempts to determine reason for the malfunction and makes the correction, if possible.
6. Maintains positive control of the aircraft at all times.

B. TASK: EMERGENCY APPROACH AND LANDING (SIMULATED)

REFERENCE: Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of elements relating to emergency approach and landing procedures.
2. Selects a suitable landing area within gliding distance.
3. Plans and follows a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.
4. Attempts to determine reason for the malfunction and makes the correction, if possible.
5. Maintains positive control of the aircraft at all times.

IX. AREA OF OPERATION: POSTFLIGHT PROCEDURES

A. TASK: AFTER LANDING

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of after-landing procedures.
2. Monitors position and shape of canopy/riser system during taxi.
3. Controls canopy in a crosswind taxi.
4. Controls and protects canopy/riser systems during deflation.
5. Completes checklist as required.

B. TASK: PARKING AND SECURING

REFERENCES: AC 61-21; Powered Parachute Flight Manual.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements of parking and securing.
2. Uses recommended engine shutdown procedures, including making engine safe (ignition switch off, fuel selector to off position, and other requirements as specified by the manufacturer).
3. Protects canopy/riser system during disconnection from airframe (hot engine).
4. Conducts postflight inspection of airframe and engine.
5. Prepares aircraft for transport and/or storage, including inspecting canopy/riser systems before storage.