



Advisory Circular NCAA-AC-PEL032

**SUBJECT: COMMERCIAL PILOT - GLIDER SKILL TEST STANDARDS
ADVISORY CIRCULAR NCAA-AC-PEL032
DATE: 2ND JUNE 2010**

0.0 FOREWORD

0.1 The Nigerian Civil Aviation Authority (NCAA) has developed skill test standards for airmen licences and ratings and these are published as Advisory Circulars (ACs). This AC establishes the standards for the Commercial Pilot licence skill tests for Gliders. Nigerian inspectors and designated pilot flight test examiners shall conduct skill tests in compliance with these standards. Flight instructors and applicants should find these standards helpful in skill test preparation. Other ACs have been developed for other airmen licences and can be obtained from the NCAA website: <http://www.ncaa.gov.ng>.

0.2 Information considered directive in nature is described in this skill test AC 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.

0.3 The Nigerian Civil Aviation Regulations (Nlg. CARs) can be obtained from the NCAA at the address listed below. Nlg. CARs Part 2 cover the requirements for personnel licensing.

0.4 This Skill Test Standard may be downloaded from the NCAA website at <http://www.ncaa.gov.ng>. Subsequent changes to the Skill Test Standard will also be available on the NCAA web site.

0.5 Comments regarding this publication should be sent to:

Nigerian Civil Aviation Authority
Aviation House
Murtala Muhammed Airport
Ikeja

Dr. H. O. Demuren
Director General, Civil Aviation Authority

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SKILL TEST STANDARDS
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SECTION ONE

PURPOSE

1.1 The purpose of this AC is to prescribe the standards that shall be used by NCAA inspectors and designated flight test examiners when conducting the Commercial Pilot - Glider skill test. Flight instructors are expected to use this document when preparing applicants for skill tests. Applicants should be familiar with this document and refer to these standards during their training.

GENERAL

1.2 The NCAA has developed this skill test AC as the standard that shall be used by NCAA inspectors and designated flight test examiners when conducting Commercial Pilot - Glider skill tests. Flight instructors are expected to use this book when preparing applicants for skill tests. Applicants should be familiar with this book and refer to these standards during their training.

SKILL TEST STANDARD CONCEPT

1.3 The Nig. CARs specify the areas in which knowledge and skill must be demonstrated by the applicant before the issuance of a licence or rating. The Nig. CARs provide the flexibility to permit the NCAA to publish Skill Test Standards (STS) containing the AREAS OF OPERATION and specific TASKS in which pilot competency shall be demonstrated. The NCAA will revise this STS whenever it is determined that changes are needed in the interest of safety. Adherence to the provisions of the regulations and the STS is mandatory for evaluation of pilot applicants.

SKILL TEST DESCRIPTION

1.4 (1) This AC contains the skill test standards for a Commercial Pilot – Glider rating.

(2) AREAS OF OPERATION are phases of the skill test arranged in a logical sequence within each standard. They begin with preflight preparation and end with postflight procedures. The examiner may conduct the skill test in any sequence that results in a complete and efficient test; however, the ground portion of the skill test shall be accomplished before the flight portion.

(3) TASKS are titles of knowledge areas, flight procedures, or maneuvers appropriate to an AREA OF OPERATION.

(4) NOTE is used to emphasize special considerations required in the AREA OF OPERATION or TASK.

(5) REFERENCE identifies the publication(s) that describe(s) the TASK. Descriptions of TASKS are not included in the standards because this information can be found in the current issue of the listed references. Publications other than those listed may be used for references if their content conveys substantially the same meaning as the referenced publications. The STSs are based on the following references:

NIG. CARS Part 1	General Policies, Procedures, and Definitions
NIG. CARS Part 2	Personnel Licensing

NIG. CARS Part 5	Airworthiness
NIG. CARS Part 7	Aircraft Instruments and Equipment
NIG. CARS Part 8	Operations
NIG. CARS Part 9	Air Operator Certification and Operation
NOTAMS	Notices to Airmen
RESERVED	
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(6) The Objective lists the important elements that must be satisfactorily performed to demonstrate competency in a TASK. The Objective includes:

- (a) Specifically what the applicant should be able to do;
- (b) The conditions under which the TASK is to be performed; and
- (c) The acceptable standards of performance.

(7) The following abbreviations have the meanings shown:

ADF	Automatic Direction Finder
ADM	Aeronautical Decision Making
AIRMETs	Airmen's Meteorological Advisories
APV	Approach with Vertical Guidance
ATC	Air Traffic Control
ATIS	Automatic Terminal Information Service
ATS	Air Traffic Service
NIG. CARS	Nigerian Civil Aviation Regulations
CDI	Course Deviation Indicator
CFIT	Controlled Flight into Terrain
CRM	Crew Resource Management
DA	Decision Altitude
DH	Decision Height
DME	Distance Measuring Equipment
DP	Departure Procedure

NCAA	Nigerian Civil Aviation Authority
FDC	Flight Data Center
FMS	Flight Management System
FSTD	Flight Simulation Training Device
GLS	GNSS Landing System
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GPWS	Ground Proximity Warning System
IAP	Instrument Approach Procedure
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
IPC	Instrument Proficiency Check
LAHSO	Land and Hold Short Operations
LCD	Liquid Crystal Display
LDA	Localizer-type Directional Aid
LED	Light Emitting Diode
LOC	Localizer
LORAN	Long Range Navigation
MAP	Missed Approach Point
ACA	Minimum Descent Attitude
METAR	Aviation Routine Weather Report
MLS	Microwave Landing System
NAVAID	Navigational Aid
NDB	Non-Directional Beacon
NOTAM	Notice to Airmen
NPA	Nonprecision Approach
PA	Precision Approach
RAIM	Receiver Autonomous Integrity Monitoring
RMI	Radio Magnetic Indicator
RNAV	Area navigation
SAS	Stability Augmentation System
SDF	Simplified Directional Facility
SID	Standard Instrument Departure
SIGMET	Significant Meteorological Advisory
SRM	Single Pilot Resource Management
STAR	Standard Terminal Arrival
STS	Skill Test Standards
TCAS	Traffic Alert and Collision Avoidance System
VDP	Visual Descent Point
VHF	Very High Frequency
VNAV	Vertical Navigation
VOR	Very High Frequency Ominidirectional Range

1.5 USE OF THE SKILL TEST STANDARDS

(1) The NCAA requires that all skill tests be conducted in accordance with the appropriate STS and the policies set forth in Section 1. Applicants shall be evaluated in ALL TASKS included in the AREAS OF OPERATION of the appropriate STS (unless noted otherwise).

(2) An applicant who holds a commercial pilot licence and is seeking an additional glider category rating, will be evaluated on at least the AREAS OF OPERATION and TASKs listed in the Additional Rating Task Table located on page 16 of this skill test standard. At the discretion of the examiner, an evaluation of the applicant's competence in the remaining AREAS OF OPERATION and TASKs may be conducted.

(3) In preparation for each skill test, the examiner shall develop a written "plan of action" for each skill test. The "plan of action" is a tool, for the sole use of the examiner, to be used in evaluating the applicant. The plan of action need not be grammatically correct or in any formal format. The plan of action must contain all of the required AREAS OF OPERATION and TASKs and any optional TASKs selected by the examiner. The "plan of action" shall incorporate one or more scenarios that will be used during the skill test. The examiner should try to include as many of the TASKs into the scenario portion of the test as possible, but maintain the flexibility to change due to unexpected situations as they arise and still result in an efficient and valid test. **Any TASK selected for evaluation during a skill test shall be evaluated in its entirety.**

(3) 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 have an orderly and efficient flow of the skill test. For example, Boxing the Wake may be combined with Maintaining Tow Positions. 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.

(4) All TASKs in these skill test standards are required for the issuance of a commercial pilot – glider licence, regardless of launch method, except for AREA OF OPERATION IV. Per the first Note in AREA OF OPERATION IV, the examiner must select the kind of launch, based on the applicant's qualifications. In AREA OF OPERATION IV the kind of launch is shown in each TASK heading.

(5) When using the skill test standards, the examiner must evaluate the applicant's knowledge and skill in sufficient depth to determine that the standards of performance listed for all applicable TASKs are met. However, when a particular element is not appropriate to the glider, its equipment, or operational capability, that element may be omitted. Examples of these element exceptions would be gliders not equipped with variometers or total energy compensators, avionics, or electrical systems.

(6) The examiner is expected to use good judgment in the performance of simulated emergency procedures. The use of the safest means for simulation is expected. Consideration must be given to local conditions, both meteorological and topographical, at the time of the test, as well as the applicant's workload, and the condition of the aircraft used. If the procedure being evaluated would jeopardize safety, it is expected that the applicant shall simulate that portion of the maneuver.

1.6 SPECIAL EMPHASIS AREAS

Examiners shall place special emphasis upon areas of aircraft operations considered critical to flight safety. Among these are:

1. positive aircraft control;
2. positive exchange of the flight controls procedure;

3. stall/spin awareness;
4. collision avoidance;
5. wake turbulence avoidance;
6. LAHSO;
7. runway incursion avoidance;
8. CFIT;
9. ADM and risk management;
10. checklist usage;
11. temporary flight restrictions (TFR);
12. special use airspace (SUA);
13. aviation security; and
14. other areas deemed appropriate to any phase of the skill test.

Although these areas may not be specifically addressed under each TASK, they are essential to flight safety and will be evaluated during the skill test. In all instances, the applicant's actions will relate to the complete situation.

1.7. SKILL TEST PREREQUISITES

An applicant for an Commercial Pilot - Glider skill test is required to:

- (a) Meet the applicable requirements in Nig. CARs 2 for a Commercial Pilot – Glider rating;
- (b) Hold the appropriate medical certificate;
- (c) Pass the required knowledge test; and
- (d) Instructor Authorisation: Obtain a written endorsement from an authorised instructor certifying that the applicant has met the flight training requirements for the skill test. The endorsement shall also state that the instructor finds the applicant competent to pass the skill test and that the applicant has satisfactory knowledge of the subject area(s) in which a deficiency was indicated by the Airman Knowledge Test Report.

1.8 AIRCRAFT AND EQUIPMENT REQUIRED FOR THE SKILL TEST

The commercial pilot applicant is required to provide an airworthy, certificated aircraft for use during the skill test. This section further requires that the aircraft must:

1. be of Nigerian, foreign or military registry of the same category, class, and type, if applicable, for the licence and/or rating for which the applicant is applying;
2. have fully functioning dual controls, except as provided in Nig. CARs Part 2; and
3. be capable of performing ALL AREAS OF OPERATION appropriate to the rating sought and have no operating limitations, which prohibit its use in any of the AREAS OF OPERATION, required for the skill test.

1.9 USE OF NCAA-APPROVED FLIGHT SIMULATION TRAINING DEVICE (RESERVED)

1.10 FLIGHT INSTRUCTOR RESPONSIBILITY

(1) An appropriately rated flight instructor is responsible for training the commercial pilot applicant to acceptable standards in all subject matter areas, procedures, and maneuvers included in the TASKs within the appropriate skill test standard.

(2) Because of the impact of their teaching activities in developing safe, proficient pilots, flight instructors should exhibit a high level of knowledge, skill, and the ability to impart that knowledge and skill to students. Additionally, the flight instructor must certify that the applicant is able to perform safely as a commercial glider pilot and is competent to pass the required skill test.

(3) 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.

1.11 EXAMINER RESPONSIBILITY

(1) The examiner conducting the skill test is responsible for determining that the applicant meets the acceptable standards of knowledge and skill of each TASK within the appropriate skill test standard. Since there is no formal division between the "oral" and "skill" portions of the skill test, this becomes an ongoing process throughout the test. To avoid unnecessary distractions, oral questioning should be used judiciously at all times, especially during the flight portion of the skill test.

(2) Examiners shall test to the greatest extent practicable to the applicant's correlative abilities rather than mere rote enumeration of facts throughout the skill test.

(3) If the examiner determines that a TASK is incomplete, or the outcome uncertain, the examiner may require the applicant to repeat that TASK, or portions of that TASK. This provision has been made in the interest of fairness and does not mean that instruction, practice, or the repeating of an unsatisfactory TASK is permitted during the licensing process.

(4) Throughout the flight portion of the skill test, the examiner shall evaluate the applicant's use of visual scanning and collision avoidance procedures.

(5) The examiner may not assist the applicant in the management of the aircraft, radio communications, navigational equipment, and navigational charts.

(6) The examiner shall remain alert for other traffic at all times. The examiner shall use proper ATC terminology when simulating ATC clearances.

1.12 SATISFACTORY PERFORMANCE

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

1. perform the TASKs specified in the AREAS OF OPERATION for the licence or rating sought within the approved standards;
 2. demonstrate mastery of the aircraft with the successful outcome of each TASK performed never seriously in doubt;
 3. demonstrate satisfactory proficiency and competency within the approved standards;
- and

4. demonstrate sound judgment and ADM.

1.13 UNSATISFACTORY PERFORMANCE

(1) The tolerances represent the performance expected in good flying conditions. 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 skill test is failed.

NOTE: The tolerances stated in this standard are intended to be used as a measurement of the applicant's ability. They provide guidance for examiners to use in judging the applicant's qualifications

(2) The examiner or applicant may discontinue the test at any time when the failure of an AREA OF OPERATION makes the applicant ineligible for the licence or rating sought. **The test may be continued ONLY with the consent of the applicant.** If the test is discontinued, the applicant is entitled credit for only those AREAS OF OPERATION and their associated TASKS that were satisfactorily performed. However, during the retest, and at the discretion of the examiner, any TASK may be re- evaluated, including those previously passed.

(4) 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.

(3) When a notice of disapproval is issued, the examiner shall record the applicant's unsatisfactory performance in terms of the AREA OF OPERATION and specific TASK(s) not meeting the standard appropriate to the skill test conducted. The AREA(s) OF OPERATION/TASKS not tested and the number of skill test failures shall be recorded. If the applicant fails the skill test because of a special emphasis area, the Notice of Disapproval shall indicate the associated TASK. For example, AREA OF OPERATION II, TASK C, Preflight Inspection, failure to inspect the glider using the appropriate checklist.

1.14 DISCONTINUANCE OF A SKILL TEST

When a skill test is discontinued for reasons other than unsatisfactory performance (i.e., equipment failure, weather, or illness) NCAA Airman Licence and/or Rating Application, and, if applicable, the Airman Knowledge Test Report, shall be returned to the applicant. The examiner at that time shall prepare, sign, and issue a Letter of Discontinuance to the applicant. The Letter of Discontinuance should identify the AREAS OF OPERATION and their associated TASKS of the skill test that were successfully completed. The applicant shall be advised that the Letter of Discontinuance shall be presented to the examiner when the skill test is resumed, and made part of the licencing file.

1.15 AERONAUTICAL DECISION MAKING AND RISK MANAGEMENT

(1) The examiner shall evaluate the applicant's ability throughout the skill test to use

good aeronautical decision making procedures in order to evaluate risks. The examiner shall accomplish this requirement by developing scenarios that incorporate as many TASKS as possible to evaluate the applicants risk management in making safe aeronautical decisions. For example, the examiner may develop a scenario that incorporates weather decisions and performance planning.

(2) The applicant's ability to utilize all the assets available in making a risk analysis to determine the safest course of action is essential for satisfactory performance. The scenarios should be realistic and within the capabilities of the aircraft used for the skill test.

1.16 CREW RESOURCE MANAGEMENT

(1) CRM refers to the effective use of all available resources; human resources, hardware, and information. Human resources includes all other groups routinely working with the cockpit crew (or if a single pilot operation, the pilot) who are involved in decisions that are required to operate a flight safely. These groups include, but are not limited to: flight operations officers, cabin crewmembers, maintenance personnel, and air traffic controllers. CRM is not a single TASK. CRM is a set of skill competencies which must be evident in all TASKS in this skill test standard as applied to the single pilot or the multicrew operation. CRM competencies, grouped into three clusters of observable behavior, are:

(a) COMMUNICATIONS PROCESSES AND DECISIONS

1. Briefing/Debriefing
2. Inquiry/Advocacy/Assertiveness
3. Self-Critique
4. Communication with Available Personnel Resources
5. Decision Making

(b) BUILDING AND MAINTENANCE OF A FLIGHT TEAM

1. Leadership/Followership
2. Interpersonal Relationships

(c) WORKLOAD MANAGEMENT AND SITUATIONAL AWARENESS

1. Preparation/Planning
2. Vigilance
3. Workload Distribution
4. Distraction Avoidance
5. Wake Turbulence Avoidance

(2) CRM deficiencies almost always contribute to the unsatisfactory performance of a TASK. Therefore, the competencies provide an extremely valuable vocabulary for debriefing.

(3) The standards for each CRM competency as generally stated and applied are subjective. Conversely, some of the competencies may be found objectively stated as required operational procedures for one or more TASKS. Examples of the latter include briefings, radio calls, and instrument approach callouts. Whether subjective or objective, application of CRM competencies is dependent upon the composition of the crew.

1.17 SINGLE-PILOT RESOURCE MANAGEMENT

Single-Pilot Resource Management refers to the effective use of ALL available resources: human resources, hardware, and information. It is similar to Crew Resource Management (CRM) procedures that are being emphasized in multi-crewmember operations except that only one crewmember (the pilot) is involved. Human resources "...include all other groups routinely working with the pilot who are involved in decisions that are required to operate a flight safely. These groups include, but are not limited to: dispatchers, weather briefers, maintenance personnel, and air traffic controllers." Pilot Resource Management is not a single TASK; it is a set of skill competencies that must be evident in all TASKS in this skill test standard as applied to single-pilot operation.

1.18 HOW THE EXAMINER APPLIES CREW RESOURCE MANAGEMENT

(1) Examiners are required to exercise proper CRM competencies in conducting tests as well as expecting the same from applicants.

(2) Pass/Fail judgments based solely on CRM issues must be carefully chosen since they may be entirely subjective. Those Pass/Fail judgments which are not subjective apply to CRM-related procedures in NCAA-approved operations manuals that must be accomplished, such as briefings to other crewmembers. In such cases, the operator (or the aircraft manufacturer) specifies what should be briefed and when the briefings should occur. The examiner may judge objectively whether the briefing requirement was or was not met. In those cases where the operator (or aircraft manufacturer) has not specified a briefing, the examiner shall require the applicant to brief the appropriate items from the following note. The examiner may then judge objectively whether the briefing requirement was or was not met.

(3) The majority of aviation accidents and incidents are due to resource management failures by the pilot/crew; fewer are due to technical failures. Each applicant shall give a crew briefing before each takeoff/departure and approach/landing. If the operator or aircraft manufacturer has not specified a briefing, the briefing shall cover the appropriate items, such as runway, SID/STAR/IAP, power settings, speeds, abnormals or emergency prior to or after takeoff, emergency return intentions, missed approach procedures, FAF, altitude at FAF, initial rate of descent, DH/ACA, time to missed approach, and what is expected of the other crewmembers during the takeoff/SID and approach/landing. If the first takeoff/departure and approach/landing briefings are satisfactory, the examiner may allow the applicant to brief only the changes, during the remainder of the flight.

1.19 APPLICANT'S USE OF CHECKLISTS

Throughout the skill 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 impracticable, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished would be appropriate. Division of attention and proper visual scanning should be considered when using a checklist.

1.20 USE OF DISTRACTIONS DURING SKILL 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 while dividing attention both inside and/or outside the cockpit, the examiner shall cause a realistic distraction during the flight portion of the skill test to evaluate the applicant's ability to divide attention while maintaining safe flight.

1.21 POSITIVE EXCHANGE OF FLIGHT CONTROLS

(1) During flight, there must always be a clear understanding between pilots of 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.

(2) When one pilot wishes to give the other pilot control of the aircraft, he or she will say, "You have the flight controls." The other pilot acknowledges immediately by saying, "I have the flight controls." The first pilot again says "You have the flight controls." When control is returned to the first pilot, 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.

1.22 RATING TASK TABLES

(1) The following tables indicate the areas of operations required during a skill test for an additional rating in another aircraft category.

ADDITIONAL RATING TASK TABLE								
ADDITION OF A GLIDER RATING TO AN EXISTING COMMERCIAL PILOT LICENCE								
Required TASKS are indicated by either the TASK letter(s) that apply(s) or an indication that all or none of the TASKS must be tested.								
AREA OF OPERATION	ASEL	ASES	AMEL	AMES	Helicopter	Powered Lift	Balloon	Airship
I	B,C,D,E	B,C,D,E	B,C,D,E	B,C,D,E	B,C,D,E	B,C,D,E	B,C,D,E	B,C,D,E
II	A,B,C,E	A,B,C,E	A,B,C,E	A,B,C,E	A,B,C,E	A,B,C,E	ALL	A,B,C,E
III	B	B	B	B	B	B	ALL	B
IV	ALL*	ALL*	ALL*	ALL*	ALL*	ALL*	ALL*	ALL*
V	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
VI	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
VII	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
VIII	NONE	NONE	NONE	NONE	NONE	NONE	A	NONE
IX	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
X	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
XI	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL

*EXAMINER SHALL SELECT KIND OF LAUNCH BASED ON THE APPLICANT'S QUALIFICATIONS.

LEGEND

ASEL Airplane Single-Engine Land
 ASES Airplane Single-Engine Sea
 AMEL Airplane Multiengine Land
 AMES Airplane Multiengine Sea

SECTION TWO

APPLICANT'S SKILL TEST CHECKLIST

Commercial Pilot—Glider

EXAMINER'S NAME _____

LOCATION _____

DATE/TIME _____

ACCEPTABLE AIRCRAFT

- ? Aircraft Documents:
 - Airworthiness Certificate
 - Registration Certificate
 - Operating Limitations
- ? Aircraft Maintenance Records:
 - Record of Airworthiness Inspections
 - Current Status of Applicable Airworthiness Directives
- ? Pilot's Operating Handbook and NCAA-Approved Glider Flight Manual

PERSONAL EQUIPMENT

- ? Skill Test Standard
- ? Current Aeronautical Charts
- ? Computer and Plotter
- ? Flight Plan Form
- ? Flight Log Form
- ? Current AIM, Airport Facility Directory, and Appropriate Publications

PERSONAL RECORDS

- ? Identification - Photo/Signature ID
- ? Pilot Licence
- ? Completed form, Airman Licence and/or Rating Application with Instructor's Signature (if applicable)
- ? Airman Test Report
- ? Pilot Logbook with Appropriate Instructor Endorsements
- ? Notice of Disapproval (if applicable)
- ? Approved School Graduation Certificate (if applicable)
- ? Examiner's Fee (if applicable)

EXAMINER'S SKILL TEST CHECKLIST

Commercial Pilot—Glider

APPLICANT'S NAME _____

LOCATION _____

DATE/TIME _____

I. PREFLIGHT PREPARATION

- ? A. Licences and Documents
- ? B. Weather Information
- ? C. Operation of Systems
- ? D. Performance and Limitations
- ? E. Aeromedical Factors

II. PREFLIGHT PROCEDURES

- ? A. Assembly
- ? B. Ground Handling
- ? C. Preflight Inspection
- ? D. Cockpit Management
- ? E. Visual Signals

III. AIRPORT AND GLIDERPORT OPERATIONS

- ? A. Radio Communications
- ? B. Traffic Patterns
- ? C. Airport, Runway, and Taxiway Signs, Markings, and Lighting

IV. LAUNCHES AND LANDINGS

AEROTOW

- ? A. Before Takeoff Check
- ? B. Normal and Crosswind Takeoff
- ? C. Maintaining Tow Positions
- ? D. Slack Line
- ? E. Boxing the Wake
- ? F. Tow Release
- ? G. Abnormal Occurrences

GROUND TOW (AUTO OR WINCH)

- ? **H.** Before Takeoff Check
- ? **I.** Normal and Crosswind Takeoff
- ? **J.** Abnormal Occurrences

SELF-LAUNCH

- ? **K.** Engine Starting
- ? **L.** Taxiing
- ? **M.** Before Takeoff Check
- ? **N.** Normal and Crosswind Takeoff and Climb
- ? **O.** Engine Shutdown in Flight
- ? **P.** Abnormal Occurrences

LANDINGS

- ? **Q.** Normal and Crosswind Landing
- ? **R.** Slips to Landing
- ? **S.** Downwind Landing

V. PERFORMANCE AIRSPEEDS

- ? **A.** Minimum Sink Airspeed
- ? **B.** Speed-To-Fly

VI. SOARING TECHNIQUES

- ? **A.** Thermal Soaring
- ? **B.** Ridge and Slope Soaring
- ? **C.** Wave Soaring

VII. PERFORMANCE MANEUVERS

- ? **A.** Straight Glides
- ? **B.** Turns to Headings
- ? **C.** Steep Turns

VIII. NAVIGATION

- ? **A.** Flight Preparation and Planning
- ? **B.** National Airspace System

IX. SLOW FLIGHT AND STALLS

- ? **A.** Maneuvering at Minimum Control Airspeed
- ? **B.** Stall Recognition and Recovery

X. EMERGENCY OPERATIONS

- ? **A.** Simulated Off-Airport Landing
- ? **B.** Emergency Equipment and Survival Gear

XI. POSTFLIGHT PROCEDURES

- ? **A.** After-Landing and Securing

I. AREA OF OPERATION: PREFLIGHT PREPARATION

A. TASK: LICENCES AND DOCUMENTS

NOTE: The examiner shall develop a scenario to evaluate TASKs C and E. Real time weather or current weather should be used, as available.

REFERENCES: Nig. CARs Parts 2, 5 and 8; POH/GFM.

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

1. Explaining—
 - a. commercial pilot licence privileges, limitations, and recent flight experience requirements.
 - b. medical fitness.
 - c. pilot logbook or flight records.
2. Locating and explaining—
 - a. airworthiness and registration certificates.
 - b. operating limitations, placards, instrument markings, and POH/GFM.
 - c. weight and balance data and equipment list.

B. TASK: AIRWORTHINESS REQUIREMENTS

REFERENCES: 14 CFR parts 21, Nig. CARs Parts 5, and 8

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

1. Explaining—
 - a. required instruments and equipment for day/night VFR.
 - b. procedures and limitations for determining airworthiness of the glider with inoperative instruments and equipment.
 - c. requirements and procedures for obtaining a special flight permit.
2. Locating and explaining—
 - a. airworthiness directives.
 - b. compliance records.
 - c. maintenance/inspection requirements.
 - d. appropriate record keeping.

C. TASK: WEATHER INFORMATION

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to weather information from various sources with emphasis on—
 - a. use of weather reports, charts, and forecasts.
 - b. significant weather prognostics.
2. Exhibits knowledge of the relationship of the following factors to the lifting process—
 - a. pressure and temperature lapse rates.
 - b. atmospheric instability.
 - c. thermal index and thermal production.
 - d. cloud formation and identification.
 - e. frontal weather.
 - f. other lifting sources.
3. Explains hazards associated with flight in the vicinity of thunderstorms.
4. Makes a competent “go/no-go” decision based on available weather information.

D. TASK: OPERATION OF SYSTEMS

REFERENCES: POH/GFM.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to the operation of instruments and systems on the glider provided for the skill test, by explaining at least five (5) of the following systems—
 - a. magnetic compass.
 - b. yaw string or inclinometer.
 - c. airspeed indicator and altimeter.
 - d. variometer and total energy compensators.
 - e. gyroscopic instruments.
 - f. electrical, including starting system for self-launch.
 - g. landing gear and brakes.
 - h. avionics.
 - i. high-lift and drag devices.
 - j. oxygen equipment.
 - k. powerplant and propeller for self-launch.
 - l. fuel, oil and hydraulic for self-launch.
2. Correctly interprets information displayed on the instruments.

E. TASK: PERFORMANCE AND LIMITATIONS

REFERENCES: POH/GFM.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance and the adverse effects of exceeding limitations.
2. Demonstrates use of the appropriate performance charts, tables, and data.
3. Computes weight and balance. Determines if the computed weight and center of gravity are within the glider's operating limitations and if the weight and center of gravity will remain within limits during all phases of flight.
4. Explains the management of ballast and its effect on performance.
5. Describes the effect of various atmospheric conditions on the glider's performance.
6. Explains the applicable performance speeds and their uses.
7. Describes the relationship between airspeeds and load factors.

F. TASK: AEROMEDICAL FACTORS

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

1. The symptoms, causes, effects, and corrective actions of at least four (4) of the following—
 - a. hypoxia.
 - b. hyperventilation.
 - c. middle ear and sinus problems.
 - d. spatial disorientation and illusions.
 - e. motion sickness.
 - f. carbon monoxide poisoning (self-launch).
 - g. stress and fatigue.
 - h. dehydration and heatstroke.
2. The effects of alcohol, drugs, and over-the-counter medications.
3. The effects of excess nitrogen during scuba dives upon a pilot or passenger in flight.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

A. TASK: ASSEMBLY

NOTE: If, in the judgment of the examiner, the demonstration of the glider assembly is impractical, competency may be determined by oral testing.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to assembly procedures.
2. Selects a suitable assembly area and provides sufficient crewmembers for assembly.
3. Follows an appropriate checklist.
4. Uses proper tools.
5. Handles components properly.
6. Cleans and lubricates parts, as appropriate.
7. Accounts for all tools and parts at the completion of assembly.
8. Performs post-assembly inspection, including a positive control check.

B. TASK: GROUND HANDLING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to ground handling procedures.
2. Selects the appropriate ground handling procedures and equipment for existing conditions.
3. Determines the number of crewmembers needed.
4. Handles the glider in a manner that will not result in damage during movement.
5. Secures the glider and controls, as necessary, in proper position.

C. TASK: PREFLIGHT INSPECTION

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to preflight inspection, including which items must be inspected, for what reasons, and how to detect possible defects.
2. Inspects the glider using the appropriate checklist.
3. Verifies the glider is in condition for safe flight, notes any discrepancies, and determines if maintenance is required.
4. Inspects the launch equipment, including towline, tow hitches, weak links, and release mechanism.

D. TASK: COCKPIT MANAGEMENT

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to cockpit management procedures.
2. Organizes and arranges material and equipment in a manner making items readily available.
3. Briefs passengers on the use of safety belts, shoulder harnesses, and emergency procedures.
4. Utilizes all appropriate checklists.

E. TASK: VISUAL SIGNALS

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to aerotow or ground tow visual signals, as appropriate.
2. Uses, interprets, and responds to prelaunch, launch, airborne, and emergency signals, as appropriate.
3. For aerotow, exhibits knowledge of the elements related to in-flight aerotow visual signals, both to and from the towplane.

III. AREA OF OPERATION: AIPORT AND GLIDERPORT OPERATIONS

A. TASK: RADIO COMMUNICATIONS AND ATC LIGHT SIGNALS

NOTE: If radio communications are impractical, competency may be determined by oral testing.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications, radio failure, and ATC light signals.
2. Selects appropriate frequencies for facilities to be used.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications and complies with instructions.
5. Uses appropriate procedures for simulated radio communications failure.
6. Interprets and complies with ATC light signals.

B. TASK: TRAFFIC PATTERNS

REFERENCES: Nig. CARs Part 8;

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic pattern procedures for gliders.
2. Follows established traffic pattern procedures.
3. Maintains awareness of other traffic in pattern.
4. Maintains proper ground track with crosswind correction, if necessary.
5. Crosses designated points at appropriate altitudes, unless conditions make such action impractical
6. Selects touchdown and stop points.
7. Adjusts glidepath and track promptly to compensate for unexpected lift, sink, or changes in wind velocity.
8. Makes smooth, coordinated turns with a bank angle not to exceed 45° when turning final approach.
9. Adjusts flaps, spoilers, or dive brakes, as appropriate.
10. Recognizes and makes appropriate corrections for the effect of wind.
11. Completes the prescribed checklist, if applicable.

C. TASK: AIRPORT, RUNWAY, AND TAXIWAY SIGNS, MARKINGS, AND LIGHTING

REFERENCES: Nig. CARs Part 8; NOTAMS;

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, interprets, and complies with airport, runway, and taxiway signs, markings, and lighting.

IV. AREA OF OPERATION: LAUNCHES AND LANDINGS

NOTE: Examiner shall select kind of launch based on the applicant's qualifications.

A. TASK: AEROTOW - BEFORE TAKEOFF CHECK

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. Establishes a course of action with crewmembers, including signals, speeds, wind, and emergency procedures.
3. Ensures that the glider is in safe operating condition.
4. Checks towline hookup and release mechanism, using the appropriate hook for the type of launch conducted.
5. Ensures no conflict with traffic prior to takeoff.
6. Completes the prescribed checklist, if applicable.

B. TASK: AEROTOW - 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.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff, including configurations and tow positions.
2. Uses proper pre-launch signals for aerotow launch.
3. Lifts off at an appropriate airspeed.
4. Maintains proper position until towplane lifts off.
5. Maintains directional control and proper wind-drift correction throughout the takeoff
6. Maintains proper alignment with the towplane.
7. Uses proper aerotow visual signals between the glider and towplane, as appropriate.

C. TASK: AEROTOW - MAINTAINING TOW POSITIONS

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to high-tow (slightly above the wake) and low-tow (slightly below the wake) positions during various phases of aerotow
2. Makes smooth and correct control applications to maintain vertical and lateral positions during high and low tow.
3. Transitions from high- to low-tow position through the wake while maintaining positive control.
4. Maintains proper tow position during turns.
5. Uses aerotow visual signals as appropriate and as directed by the examiner.

D. TASK: AEROTOW - SLACK LINE

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to the causes, hazards, and corrections related to slack line.
2. Recognizes slack line and applies immediate, positive, and smooth corrective action to eliminate slack line in various situations.

E. TASK: AEROTOW - BOXING THE WAKE

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to boxing the wake (maneuvering around the wake).
2. Maneuvers the glider, while on tow, slightly outside the towplane's wake in a rectangular, box-like pattern.
3. Maintains proper control and coordination.

F. TASK: AEROTOW - TOW RELEASE

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to tow release, including related safety factors.
2. Maintains high-tow position with normal towline tension.
3. Clears the area before releasing the towline.
4. Releases the towline and confirms release by observing the towline.
5. Makes level or climbing turn.

G. TASK: AEROTOW - ABNORMAL OCCURRENCES

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to aerotow abnormal occurrences, for various situations, such as—
 - a. towplane power loss during takeoff.
 - b. towline break.
 - c. towplane power failure at altitude.
 - d. glider release failure.
 - e. glider and towplane release failure.
 - f. canopy opening in flight.
2. Demonstrates simulated aerotow abnormal occurrences as required by the examiner.

H. TASK: GROUND TOW (AUTO OR WINCH) BEFORE TAKEOFF CHECK

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. Establishes a course of action with crewmembers, including signals, speeds, wind direction, and emergency procedures.
3. Ensures glider is in safe operating condition.
4. Checks towline hookup and release mechanism, using the appropriate hook for the type of launch conducted.
5. Ensures no conflict with traffic prior to takeoff.
6. Completes the prescribed checklist, if applicable.

I. TASK: GROUND TOW (AUTO OR WINCH) - 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.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff, including related safety factors.
2. Uses proper signals for takeoff.
3. Maintains directional control during launch.
4. Lifts off at the proper airspeed.
5. Establishes proper initial climb pitch attitude.
6. Takes prompt action to correct high speed, low speed, or porpoising.
7. Maintains proper ground track during climb.
8. Releases in proper manner and confirms release.

J. TASK: GROUND TOW (AUTO OR WINCH) - ABNORMAL OCCURRENCES

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to ground tow abnormal occurrences for various situations, such as—
 - a. overrunning the towline.
 - b. towline break.
 - c. inability to release towline.
 - d. over and under speeding.
 - e. porpoising.
 - f. canopy opening in flight.
2. Demonstrates simulated ground tow abnormal occurrences, as required by the examiner.

K. TASK: SELF-LAUNCH - ENGINE STARTING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to engine starting, including various atmospheric conditions, and awareness of other persons and property during start
2. Accomplishes recommended starting procedures.
3. Completes appropriate checklists.

L. TASK: SELF-LAUNCH - TAXIING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to taxiing, including the effect of wind during taxiing and appropriate control positions.
2. Performs a brake check immediately after the glider begins moving.
3. Positions flight controls properly, considering the wind.
4. Controls direction and speed without excessive use of brakes.
5. Avoids other aircraft and hazards.
6. Complies with signals.

M. TASK: SELF-LAUNCH - BEFORE TAKEOFF CHECK

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check, including the reasons for checking each item and to detect malfunctions.
2. Positions the glider properly considering other aircraft, wind, and surface condition
3. Ensures engine temperatures and pressures are suitable for un-up and takeoff.
4. Accomplishes before takeoff checks and ensures the glider is in safe operating condition.
5. Reviews airspeeds, takeoff distance, and emergency procedures.
6. Completes appropriate checklists.

N. TASK: SELF-LAUNCH - NORMAL AND CROSSWIND TAKEOFF AND CLIMB

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

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff and climb.
2. Positions flight controls for existing wind conditions.
3. Clears the area, taxis into takeoff position, and aligns the glider for departure.
4. Advances throttle smoothly to takeoff power.
5. Rotates at recommended airspeed, and accelerates to appropriate climb speed, ± 5 knots.
6. Maintains takeoff power to a safe maneuvering altitude, and then sets climb power
7. Completes appropriate checklists.

O. TASK: SELF-LAUNCH - ENGINE SHUTDOWN IN FLIGHT

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to engine shutdown procedures in flight
2. Sets power for proper engine cooling.
3. Establishes appropriate airspeed.
4. Sets electrical equipment.
5. Shuts down engine.
6. Feathers or positions propeller and stows, as applicable.
7. Selects proper static source, if applicable.
8. Completes appropriate checklists.

P. TASK: SELF-LAUNCH - ABNORMAL OCCURRENCES

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to self-launch abnormal occurrences, for various situations, such as—
 - a. partial, complete power failure, and failure to gain restart.
 - b. fire or smoke.
 - c. electrical system malfunction.
 - d. low fuel pressure.
 - e. low oil pressure.
 - f. engine overheat.
 - g. canopy opening in flight.
 - h. engine restart in flight.
2. Demonstrates simulated self-launch abnormal occurrences, as required by the examiner.

Q. TASK: LANDINGS - NORMAL AND CROSSWIND LANDING

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

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to a normal and crosswind approach and landing procedures.
2. Adjusts flaps, spoilers, or dive brakes, as appropriate.
3. Maintains recommended approach airspeed, ± 5 knots.
4. Maintains crosswind correction and directional control throughout the approach and landing.
5. Makes smooth, timely, and positive control application during the roundout and touchdown.
6. Touches down smoothly within the designated landing area, with no appreciable drift, and with the longitudinal axis aligned with the desired landing path, stopping short of and within 100 feet of a designated point.
7. Maintains control during the after-landing roll.
8. Completes appropriate checklists.

R. TASK: LANDINGS - SLIPS TO LANDING

NOTE: The examiner will select one type of slip from the knowledge area for demonstration.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to forward, side, and turning slips to landing, with and without the use of drag devices.
2. Recognizes the situation where a slip should be used to land in a desired area.
3. Establishes a slip without the use of drag devices.
4. Maintains the desired ground track.
5. Maintains proper approach attitude.
6. Makes smooth, proper, and positive control applications during recovery from the slip.
7. Touches down smoothly within the designated landing area.

S. TASK: LANDINGS - DOWNWIND LANDING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to downwind landings, including safety related factors.
2. Adjusts flaps, spoilers, or dive brakes, as appropriate.
3. Maintains recommended approach airspeed, ± 5 knots.
4. Uses proper downwind landing procedures.
5. Maintains proper directional control during touchdown and rollout.
6. Applies brake smoothly to bring glider to a stop.

V. AREA OF OPERATION: PERFORMANCE SPEEDS

A. TASK: MINIMUM SINK AIRSPEED

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to aerodynamic factors and use of minimum sink airspeed.
2. Determines the minimum sink airspeed for a given situation and maintains the selected speed, ± 5 knots.

B. TASK: SPEED-TO-FLY

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to speed-to-fly, and its uses.
2. Determines the speed-to-fly for a given situation and maintains the airspeed, ± 5 knots.

VI. AREA OF OPERATION: SOARING TECHNIQUES

NOTE: Due to varying geographical locations and atmospheric conditions, the applicant may be asked to demonstrate at least one of the following soaring TASKS most appropriate for the particular location and existing conditions. If conditions do not permit a demonstration of soaring skills, applicants will be expected to demonstrate knowledge of the various types of soaring through oral testing.

A. TASK: THERMAL SOARING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to thermal soaring.
2. Recognizes the indications of, and the presence of, a thermal.
3. Analyzes the thermal structure and determines the direction to turn to remain within the thermal.
4. Exhibits coordinated control and planning when entering and maneuvering to remain within the thermal.
5. Applies correct techniques to re-enter the thermal, if lift is lost.
6. Remains oriented to ground references, wind, and other aircraft.
7. Maintains proper airspeeds in and between thermals.

B. TASK: RIDGE AND SLOPE SOARING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to ridge and slope soaring.
2. Recognizes terrain features and wind conditions, which create orographic lift.
3. Enters the area of lift properly.
4. Estimates height and maintains a safe distance from the terrain.
5. Exhibits smooth, coordinated control, and planning to remain within the area of lift.
6. Uses correct technique to re-enter the area of lift, if lift is lost.
7. Remains oriented to ground references, wind, and other aircraft.
8. Uses proper procedures and techniques when crossing ridges.
9. Maintains proper airspeeds.

C. TASK: WAVE SOARING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to wave soaring.
2. Locates and enters the area of lift.
3. Exhibits smooth, coordinated control, and planning to remain within the area of lift
4. Uses correct technique to re-enter the area of lift, if lift is lost.
5. Remains oriented to ground references, wind, and other aircraft.
6. Recognizes and avoids areas of possible extreme turbulence.
7. Maintains proper airspeeds.
8. Coordinates with ATC, as appropriate.

VII. AREA OF OPERATION: PERFORMANCE MANEUVERS

A. TASK: STRAIGHT GLIDES

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to straight glides, including the relationship of pitch attitude and airspeed.
2. Tracks toward a prominent landmark at a specified airspeed.
3. Demonstrates the effect of flaps, spoilers, or dive brakes, if equipped, in relation to pitch attitude and airspeed.
4. Exhibits smooth, coordinated control, and planning.
5. Maintains the specified heading, $\pm 10^\circ$, and the specified airspeed, ± 5 knots.

B. TASK: TURNS TO HEADINGS

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to turns to headings, including the relationship of pitch attitude, bank angle, and airspeed.
2. Enters and maintains an appropriate rate of turn with smooth, proper, and coordinated control applications.
3. Maintains the desired airspeed, ± 5 knots, and rolls out on the specified heading, $\pm 10^\circ$.

C. TASK: STEEP TURNS

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns, including load factor, effect on stall speed, and overbanking tendency.
2. Establishes the recommended entry airspeed.
3. Enters a 720° turn maintaining a bank angle of 45°±5°, with smooth and coordinated control applications.
4. Maintains desired airspeed, ±5 knots.
5. Rolls out on the entry heading, ±10°.

VIII. AREA OF OPERATION: NAVIGATION

NOTE: The applicant's knowledge of this AREA OF OPERATION will be evaluated through oral testing.

A. TASK: FLIGHT PREPARATION AND PLANNING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to flight preparation and planning.
2. Selects and uses current and appropriate aeronautical charts.
3. Plots a course and selects prominent en route checkpoints.
4. Constructs a flight profile to determine minimum flight altitude at go-ahead points.
5. Explains method of using lift sources and speeds effectively within and between lift sources.
6. Selects available landing area.
7. Describes coordination procedures with ATC, as appropriate.
8. For self-launch, explains the factors affecting fuel consumption, range, and engine operations.

B. TASK: NATIONAL AIRSPACE SYSTEM

REFERENCES: Nig. CARs Part 8;

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

1. Basic VFR weather minimums for all classes of airspace.
2. Airspace classes and their dimensions, pilot certification requirements, and glider equipment requirements for the following—
 - a. Class A.
 - b. Class B.
 - c. Class C.
 - d. Class D.
 - e. Class E.
 - f. Class G.
3. Special use airspace and other airspace areas.

IX. AREA OF OPERATION: SLOW FLIGHT AND STALLS

A. TASK: MANEUVERING AT MINIMUM CONTROL AIRSPEED

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to maneuvering at minimum control airspeed, including flight characteristics and controllability.
2. Establishes and maintains an airspeed at which any further increase in angle of attack or load factor would result in a stall in straight or turning flight.
3. Accomplishes coordinated flight with configuration(s) specified by the examiner.
4. Adjusts the airspeed to avoid stalls in turbulent air or as bank is increased.
5. Applies control inputs in a smooth and coordinated manner.
6. Uses proper procedures to avoid stalls when raising a lowered wing.
7. Maintains heading, $\pm 10^\circ$, during straight flight, and the desired bank angle, $\pm 5^\circ$, during turns.

B. TASK: STALL RECOGNITION AND RECOVERY

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to stall recognition and recovery, including the aerodynamic factors and flight situations that may result in stalls, and the hazards of stalling during uncoordinated flight.
2. Selects an entry altitude that will allow the maneuver to be completed no lower than 1,500 feet AGL.
3. Establishes and maintains a pitch attitude that will result in a stall during both straight and turning flight with and without flaps, spoilers, or dive brakes, as appropriate.
4. Maintains a bank angle of $15^\circ \pm 5^\circ$, during turns.
5. Recovers promptly at the first indication of buffeting or rapid decay of control effectiveness.
6. Uses smooth and coordinated control applications throughout the maneuver.

X. AREA OF OPERATION: EMERGENCY OPERATIONS

A. TASK: SIMULATED OFF-AIRPORT LANDING

NOTE: This landing will be performed at an established airport.

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to a simulated off airport landing, including selection of a suitable landing area and the procedures used to accomplish an off-airport landing.
2. Performs a simulated off-airport landing without the use of an altimeter.

B. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR

Objective. To determine that the applicant exhibits knowledge of the elements related to emergency equipment and survival gear, appropriate to the glider used for the skill test, by describing:

1. Location in the glider.
2. Method of operation or use.
3. Servicing and storage.
4. Inspection, fitting, and use of parachutes.
5. Equipment and gear appropriate for operation in various climates and over various types of terrain.

XI. AREA OF OPERATION: POSTFLIGHT PROCEDURES

A. TASK: AFTER-LANDING AND SECURING

Objective. To determine that the applicant:

1. Exhibits knowledge of the elements related to after-landing and securing procedures, including local and ATC operations, ramp safety, parking hand signals, shutdown (if appropriate), securing, and postflight inspection.
2. Selects a suitable parking area while considering wind and safety of nearby persons and property.
3. Taxies to parking area and performs engine shutdown, if applicable.
4. Services the glider, if applicable.
5. Secures the glider properly.
6. Performs a satisfactory postflight inspection.
7. Completes the prescribed checklist.

APPENDIX 1
TASK VS. SIMULATION DEVICE CREDIT
RESERVED