



SIERRA LEONE CIVIL AVIATION AUTHORITY

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## **Flight Instructor Instrument (Aeroplane and Helicopter) Skill Test Standards**

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**Director General**  
Sierra Leone Civil Aviation Authority

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## **FOREWORD**

The Sierra Leone Civil Aviation Authority (SLCAA) 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 Flight Instructor licence skill tests Instruments (Aeroplane and Helicopters). The Authority Inspectors and designated flight instructor examiners shall conduct skill tests in compliance with these standards. Flight instructor 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 SLCAA website: <http://www.slcaa.gov.sl>

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.

The Sierra Leone Civil Aviation Regulations (SLCARs) can be obtained from the SLCAA at the address listed below. SLCARs Part 1A covers the requirements for personnel licensing.

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

Comments regarding this publication should be sent to:

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## **SECTION ONE: INSTRUCTIONS**

**1.1 GENERAL**

The SLCAA has developed this skill test AC as the standard that shall be used by SLCAA inspectors and designated flight test examiners when conducting Flight Instructor instrument skill tests for Aeroplanes and helicopters. 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.

**1.2 PURPOSE**

The purpose of this AC is to prescribe the standards that shall be used by SLCAA inspectors and designated flight test examiners when conducting Flight Instructor instrument skill tests for Aeroplanes and Helicopters. 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.

**1.3 SKILL TEST STANDARD CONCEPT**

The SLCARs specify the areas in which knowledge and skill must be demonstrated by the applicant before the issuance of a licence or rating. The SLCARs provide the flexibility to permit the SLCAA to publish Skill Test Standards (STS) containing the AREAS OF OPERATION and specific TASKS in which pilot competency shall be demonstrated. The SLCAA 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.

**1.4 SKILL TEST DESCRIPTION**

- (1) This AC contains the STS for the Flight Instructor – Instrument licence for Aeroplanes and helicopters.
- (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 post flight 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:

SLCARs Part 1A	Personnel Licensing
SLCARs Parts 6A	Operations
SLCARs Part 8	Airworthiness
SLCARs Part 22	General Policies, Procedures, and Definitions
SLCARs Part 25	Instruments and Equipment
SLCARs Part 26	Air Operator Certification
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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.

The examiner determines that the applicant meets the TASK OBJECTIVE through the demonstration of competency in all elements of knowledge and/or skill unless otherwise noted. The OBJECTIVES of TASKs in certain AREAS OF OPERATION, such as Fundamentals of Instructing and Technical Subjects, include only knowledge elements. OBJECTIVES of TASKs in AREAS OF OPERATION that include elements of skill, as well as knowledge also include common errors, which the applicant shall be able to describe, recognise, analyse, and correct.

- (7) The OBJECTIVE of a TASK that involves pilot skill consists of four parts. Those four parts include determination that the applicant exhibits:
  - (a) Instructional knowledge of the elements of a TASK. This is accomplished through descriptions, explanations, and simulated instruction;
  - (b) Instructional knowledge of common errors related to a TASK, including their recognition, analysis, and correction;
  - (c) The ability to demonstrate and simultaneously explain the key elements of a TASK. The TASK demonstration must be to the INSTRUMENT PILOT skill level; the teaching techniques and procedures: and
  - (d) The ability to analyse and correct common errors related to a TASK.

(8) 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
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
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
SLCAA	Sierra Leone Civil Aviation Authority
SLCARs	Sierra Leone Civil Aviation Regulations
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	Non precision Approach
PA	Precision Approach
RAIM	Receiver Autonomous Integrity Monitoring
RMI	Radio Magnetic Indicator
RNAV	Area navigation
SAS	Stability Augmentation System
SDF	Simplified Directional Facility
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 Skill test standards are designed to evaluate competency in both knowledge and skill.
- (2) The SLCAA 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).
- (3) All the procedures and manoeuvres in the Private Pilot and Commercial Pilot Skill Test Standards have been included in the Flight Instructor Skill Test Standards. However, to permit completion of the skill test for initial licensing within a reasonable timeframe, the examiner shall select one or more TASKs in each AREA OF OPERATION. In certain AREAS OF OPERATION, there are **required** TASKs which the examiner must select. These required TASKs are identified by a **NOTE** immediately following each AREA OF OPERATION title.
- (4) 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 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.
- (5) The “plan of action” for a skill test for initial licensing shall include one or more TASKs in each AREA OF OPERATION and shall always include the required TASKs. The “plan of action” for a skill test for the addition of an aircraft category and/or class rating to a flight instructor licence shall include the required AREAS OF OPERATION as indicated in the Additional Rating Table located on page 17. The required TASKs appropriate to the additional rating(s) sought shall be included. 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.**
- (6) 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, holding procedures may be combined with an approach or missed approach procedures if a holding entry is part of the procedure. 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.
- (7) **An applicant shall be expected to perform TASK H in AREA OF OPERATION VI, Recovery from Unusual Flight Attitudes and TASK A in AREA OF OPERATION VIII, Non-precision Instrument Approach using a view-limiting device.**
- (8) The applicant is required to provide an appropriate view-limiting device that is acceptable to the examiner. This device shall be used during all testing that requires testing “solely by reference to instruments.” This device must prevent the applicant from having visual reference to outside the aircraft, but not prevent the examiner from having visual reference



outside the aircraft. A procedure should be established between the applicant and the examiner as to when and how this device should be donned and removed. This procedure should be briefed before flight.

- (9) The flight instructor applicant shall be prepared in **ALL** knowledge and skill areas and demonstrate the ability to instruct effectively in **ALL TASKS** included in the **AREAS OF OPERATION** of this skill test standard.
- (10) Throughout the flight portion of the skill test, the examiner shall evaluate the applicant's ability to demonstrate and simultaneously explain the selected procedures and manoeuvres, and to give flight instruction to students at various stages of flight training and levels of experience. The term "instructional knowledge" means that the flight instructor applicant's discussions, explanations, and descriptions should follow the recommended teaching procedures and techniques.
- (11) The purpose of including common errors in certain TASKS is to assist the examiner in determining that the flight instructor applicant has the ability to recognise, analyse, and correct such errors. The examiner will not simulate any condition that may jeopardise safe flight or result in possible damage to the aircraft. The common errors listed in the TASKS objective may or may not be found in the TASK References. However, the SLCAA considers their frequency of occurrence justification for inclusion in the TASK Objectives.

#### **1.5.1 Instrument Proficiency Check**

SLCAR Part 1 sets forth the requirements for an instrument proficiency check. The person giving the check shall use the standards and procedures contained in the instrument rating STS when administering the check. The person giving the check should develop scenarios to assess the pilot's ADM and risk management skills during the instrument proficiency check.

#### **1.6 SPECIAL EMPHASIS AREAS**

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

- (1) Positive aircraft control;
- (2) Positive exchange of the flight controls procedure (who is flying the aircraft);
- (3) Aerodrome operations/runway incursions;
- (4) Collision avoidance;
- (5) Wake turbulence avoidance;
- (6) Land and hold short operations (LAHSO);
- (7) Controlled flight into terrain (CFIT);
- (8) Aeronautical decision making (ADM) and risk management;
- (9) Wire strike avoidance;
- (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.

#### **1.6.1 Emphasis on Attitude Instrument Flying and Partial Panel Skills**

- (1) The SLCAA is concerned about numerous fatal aircraft accidents involving spatial disorientation of instrument rated pilots. These pilots have attempted to control and manoeuvre their aircraft in clouds with inoperative gyroscopic heading and attitude indicators.
- (2) Many of the light aircraft operated in instrument meteorological conditions (IMC) are not equipped with dual, independent, gyroscopic heading or attitude indicators. In addition,

many are equipped with only a single vacuum source. Therefore, the SLCAA has stressed that it is imperative for instrument rated pilots to acquire and maintain adequate partial panel skills and that they be cautioned not to be overly reliant upon the gyroscopic instruments.

- (3) Instrument Rating Skill Test Standards and Flight Instructor – Instrument Practical Test Standards, place increased emphasis on basic attitude instrument flying, and require the demonstration of partial panel, non-precision instrument approach procedures. This STS emphasises these areas from an instructional standpoint.
- (4) AREA OF OPERATION VI requires the applicant to demonstrate the ability to teach basic instrument flight TASKs under both full panel and partial panel conditions. The TASKs require the applicant to exhibit instructional knowledge of attitude instrument flying techniques and procedures and to demonstrate the ability to teach basic instrument manoeuvres with both full panel and partial panel.
- (5) Examiners should determine that the applicant demonstrates and fully understands the PRIMARY and SUPPORTING or the CONTROL and PERFORMANCE CONCEPT method of attitude instrument flying.

### **1.7 SKILL TEST PREREQUISITES**

An applicant for a Flight Instructor rating for Helicopter skill test is required to:

- (1) Meet the applicable requirements in SLCAR 1 for a Flight Instructor – Helicopter rating;
- (2) Hold the appropriate medical certificate;
- (3) Pass the required knowledge test; and
- (4) **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**

- (1) The applicant is required to provide an airworthy, certificated aircraft for use during the skill test. This section further requires that the aircraft:
  - (a) Be of Sierra Leone, foreign, or military registry of the same category, class and type, if applicable, for the licence and/or rating for which the candidate is applying.
  - (b) Have functioning dual controls, except as provided in SLCAR Part 1.
  - (c) 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.
- (2) Flight instruments are those required for controlling the aircraft without outside references. The required radio equipment is that which is necessary for communications with air traffic control (ATC), and for the performance of two of the following non-precision approaches: very high frequency omnidirectional range (VOR), non-directional beacon (NDB), global positioning system (GPS) without vertical guidance, localiser (LOC), localiser-type directional aid (LDA), simplified directional facility (SDF), or area navigation (RNAV) and one precision approach: instrument landing system (ILS), GNSS landing system (GLS), localiser performance with vertical guidance (LPV) or microwave landing system (MLS). GPS equipment must be instrument certified and contain the current database. Note: An LPV approach is technically a non-precision approach; however, due to the precision of its glide path and localiser-like lateral navigation characteristics, an LPV can be used to demonstrate precision approach proficiency (AOA VIII TASK B). Also, although LPV and LNAV/VNAV approaches are non-precision approaches, they cannot be used to demonstrate non-precision approach proficiency (AOA VIII TASK A) due to the presence of a glide path. Modern technology has introduced into aviation a new method of displaying flight

instruments, such as Electronic Flight Instrument Systems, Integrated Flight Deck displays, and others.

- (3) For the purpose of the skill test standards, any flight instrument display that utilises liquid crystal display (LCD) or picture-tube-like displays will be referred to as “Electronic Flight Instrument Display.” Aircraft equipped with this technology may or may not have separate backup flight instruments installed. The abnormal or emergency procedure for loss of the electronic flight instrument display appropriate to the aircraft will be evaluated in the Loss of Primary Instruments TASK. The loss of the primary electronic flight instrument display must be tailored to failures that would normally be encountered in the aircraft. If the aircraft is capable, total failure of the electronic flight instrument display, or a supporting component, with access only to the standby flight instruments or backup display shall be evaluated.
- (4) The applicant is required to provide an appropriate view-limiting device that is acceptable to the examiner. This device shall be used during all testing that requires testing “solely by reference to instruments.” This device must prevent the applicant from having visual reference outside the aircraft, but not prevent the examiner from having visual reference outside the aircraft. A procedure should be established between the applicant and the examiner as to when and how this device should be donned and removed and this procedure should be briefed before the flight.
- (5) The applicant is expected to utilise an autopilot and/or flight management system (FMS), if properly installed, during the flight instructor – instrument practical test to assist in the management of the aircraft. The examiner is expected to test the applicant’s knowledge of the systems that are installed and operative during the oral and flight portions of the practical test. The applicant will be required to demonstrate the use of the autopilot and/or FMS during one of the non-precision approaches. The applicant is expected to demonstrate satisfactory automation management skills. If the practical test is conducted in the aircraft, and the aircraft has an operable and properly installed GPS, the examiner will require and the applicant must demonstrate GPS approach proficiency. If the applicant has contracted for training in an approved course that includes GPS training in the system that is installed in the aeroplane/simulator/FTD and the aeroplane/simulator/FTD used for the checking/testing has the same system properly installed and operable, the applicant must demonstrate GPS approach proficiency.

## **1.9 USE OF SIMULATORS AND FLIGHT TRAINING DEVICES**

- (1) An airman applicant for instrument instructor rating licensing is authorised to use an SLCAA-approved flight simulator or flight training device, to complete certain flight TASK requirements listed in this skill test standard.
- (2) When flight TASKS are accomplished in an aircraft, certain TASK elements may be accomplished through “simulated” actions in the interest of safety and practicality, but when accomplished in a flight simulator or FTD, these same actions would not be “simulated.” For example, when in an aircraft, a simulated engine fire may be addressed by retarding the throttle to idle, simulating the shutdown of the engine, simulating the discharge of the fire suppression agent, if applicable, simulating the disconnect of associated electrical, hydraulic, and pneumatics systems. However, when the same emergency condition is addressed in a flight simulator or flight training device, all TASK elements must be accomplished as would be expected under actual circumstances.
- (3) Similarly, safety of flight precautions taken in the aircraft for the accomplishment of a specific manoeuvre or procedure (such as limiting altitude in an approach to stall or setting maximum airspeed for an engine failure expected to result in a rejected take-off) need not be taken when a flight simulator or FTD is used.

- (4) It is important to understand that whether accomplished in an aircraft, flight simulator, or FTD, all TASKs and elements for each manoeuvre or procedure shall have the same performance standards applied equally for determination of overall satisfactory performance.
- (5) The applicant must demonstrate all the instrument approach procedures required by SLCAR Part 1A. At least one instrument approach procedure must be demonstrated in an aeroplane, helicopter, or powered lift as appropriate. One precision and one non-precision approach not selected for actual flight demonstration may be performed in flight simulators or FTDs that meet the requirements of appendix 1 of this skill test standard.

#### **1.10 FLIGHT INSTRUCTOR RESPONSIBILITY**

- (1) An appropriately rated flight instructor is responsible for training the flight instructor applicant to acceptable standards in ALL subject matter areas, procedures, and manoeuvres included in the TASKs within each AREA OF OPERATION in the appropriate flight instructor 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:
  - (a) Able to make a skill application of the fundamentals of instructing;
  - (b) Competent to teach the subject matter, procedures, and manoeuvres included in the standards to students with varying backgrounds and levels of experience and ability;
  - (c) Able to perform the procedures and manoeuvres included in the standards to at least the
  - (d) **COMMERCIAL PILOT** skill level while giving effective flight instruction; and  
Competent to pass the required skill test for the issuance of the flight instructor licence with the associated category and class ratings or the addition of a category and/or class rating to a flight instructor licence.
- (3) Throughout the applicant's training, the flight instructor is responsible for emphasising the performance of, and the ability to teach, effective visual scanning and collision avoidance procedures.

#### **1.11 EXAMINER RESPONSIBILITY**

- (1) The examiner conducting the skill test is responsible for determining that the applicant meets acceptable standards of teaching ability, knowledge, and skill in the selected TASKs. The examiner makes this determination by accomplishing an **OBJECTIVE** that is appropriate to each selected TASK, and includes an evaluation of the applicant's:
  - (a) Ability to apply the fundamentals of instructing;
  - (b) Knowledge of, and ability to teach, the subject matter, procedures, and manoeuvres covered in the TASKs;
  - (c) Ability to perform the procedures and manoeuvres included in the standards to the **INSTRUMENT PILOT** skill level while giving effective flight instruction; and
  - (d) Ability to analyse and correct common errors related to the procedures and manoeuvres covered in the TASKs.
- (2) It is intended that oral questioning be used at any time during the ground or flight portion of the skill test to determine that the applicant can instruct effectively and has a comprehensive knowledge of the TASKs and their related safety factors.
- (3) During the flight portion of the skill test, the examiner shall act as a student during selected manoeuvres. This will give the examiner an opportunity to evaluate the flight instructor applicant's ability to analyse and correct simulated common errors related to these manoeuvres. The examiner will also evaluate the applicant's use of visual scanning and collision avoidance procedures, and the applicant's ability to teach those procedures.
- (4) Examiners should to the greatest extent possible test the applicant's application and correlation skills. When possible scenario based questions should be used.

## **1.12 SATISFACTORY PERFORMANCE**

The skill test is passed if, in the judgement of the examiner, the applicant demonstrates satisfactory performance with regard to:

- (1) Knowledge of the fundamentals of instructing;
- (2) Knowledge of the technical subject areas;
- (3) Knowledge of the flight instructor's responsibilities concerning the pilot licencing process;
- (4) Knowledge of the flight instructor's responsibilities concerning logbook entries and pilot licence endorsements;
- (5) Ability to demonstrate the procedures and manoeuvres selected by the examiner to at least the COMMERCIAL PILOT skill level while giving effective instruction;
- (6) Competence in teaching the procedures and manoeuvres selected by the examiner;
- (7) Competence in describing, recognising, analysing, and correcting common errors simulated by the examiner; and
- (8) Knowledge of the development and effective use of a course of training, a syllabus, and a lesson plan.

## **1.13 UNSATISFACTORY PERFORMANCE**

- (1) If, in the judgement of the examiner, the applicant does not meet the standards of performance of any TASK performed, the applicable AREA OF OPERATION is considered unsatisfactory and therefore, the skill test is failed. 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 will 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 satisfactorily performed; however, during the retest and at the discretion of the examiner, any TASK may be re-evaluated, including those previously considered satisfactory. Specific reasons for disqualification are:
  - (a) Failure to perform a procedure or manoeuvre to the COMMERCIAL PILOT skill level while giving effective flight instruction;
  - (b) Failure to provide an effective instructional explanation while demonstrating a procedure or manoeuvre (explanation during the demonstration must be clear, concise, technically accurate, and complete with no prompting from the examiner);
  - (c) Any action or lack of action by the applicant which requires corrective intervention by the examiner to maintain safe flight;
  - (d) Failure to use proper and effective visual scanning techniques to clear the area before and while performing manoeuvres.
- (2) When a Notice of Disapproval is issued, the examiner shall record the applicant's unsatisfactory performance in terms of AREAS OF OPERATION and TASKs. If the applicant fails the skill test because of a special emphasis area, the Notice of Disapproval shall indicate the associated TASK. An example would be, AREA OF OPERATION VIII, Circling Approach (Aeroplane), failure to use proper runway incursion avoidance procedures.
- (3) In the case of a retest after failure, an applicant may be given credit for those areas of operations successfully completed on the previous skill test, provided the previous test was conducted within 60 days before the retest. If the previous test was conducted more than 60 days before the retest, the examiner must test the applicant in all areas of operation and all tasks.

## **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) SLCAA 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 licensing file.

### **1.15 AERONAUTICAL DECISION MAKING AND RISK MANAGEMENT**

- (1) Throughout the skill test, the examiner evaluates the applicant's ability to use good aeronautical decision-making procedures in order to identify risks. The examiner accomplishes 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 utilise all the assets available in making a risk analysis to determine the safest course of action are 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 (CRM)**

- (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 it is 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 crew members, 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 multi-crew operation. CRM competencies, grouped into three clusters of observable behaviour, 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 emphasised in multi-crew member operations except that only one crew member (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 judgements based solely on CRM issues must be carefully chosen since they may be entirely subjective. Those Pass/Fail judgements which are not subjective apply to CRM-related procedures in SLCAA-approved operations manuals that must be accomplished, such as briefings to other crew members. 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 take-off/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 take-off, emergency return intentions, missed approach procedures, FAF, altitude at FAF, initial rate of descent, DH/MDA, time to missed approach, and what is expected of the other crew members during the take-off/SID and approach/landing. If the first take-off/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 utilise 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. The instructor applicant is expected to teach proper positive exchange of flight controls during the skill test.

## 1.22 RATING TASK TABLES

### 1.22.1 Addition of an Instrument Rating to a Flight Instructor Licence

ADDITION OF AN INSTRUMENT RATING TO A FLIGHT INSTRUCTOR LICENCE				
AREA OF OPERATION	FLIGHT INSTRUCTOR LICENCE AND RATING HELD			
	Aeroplane	Helicopter	Glider	Instrument Aeroplane or Helicopter
I	N	N	N	N
II	A & C	A & C	A & C	C
III	B & C	B & C	B & C	C
IV	N	N	N	N
V	Y	Y	Y	N
VI	Y	Y	Y	Y
VII	Y	Y	Y	N
VIII	Y	Y	Y	* A or B
IX	Y	Y	Y	Y
X	Y	Y	Y	Y

Flight Instructor Licence – Instrument STS

**Note:** N indicates that the AREA OF OPERATION is not required. Y indicates that the AREA OF OPERATION is to be performed or based on the note in the AREA OF OPERATION. If a TASK (or TASKS) is listed for an AREA OF OPERATION, that TASK (or TASKS) is mandatory.

\*Combine with C, D, or E.

### 1.22.2 Renewal or Reinstatement of a Flight Instructor

REQUIRED AREAS OF OPERATION	NUMBER OF TASKS
II	1
III	1
IV	1
V	1
VI	2
VII	1
VIII	A OR B COMBINED WITH TASKS C, D, or E
IX	1

The Renewal or reinstatement of one rating on a Flight Instructor Licence renews or reinstates all privileges existing on the licence. (SLCAR Part 1A).

### 1.22.3 Renewal or Retesting of Expired Instrument Instructor Licences

The inspector/examiner conducting the check shall use the procedures contained in this STS when administering the test. ALL the TASKS in AREA OF OPERATION IV must be selected.



**SECTION TWO: INSTRUMENT SKILL TEST STANDARDS**

## **1.1 APPLICANT'S SKILL TEST CHECKLIST**

### **Flight Instructor—Instrument**

#### **APPOINTMENT WITH INSPECTOR OR EXAMINER:**

**NAME:** \_\_\_\_\_

**DATE/TIME:** \_\_\_\_\_

**LOCATION:** \_\_\_\_\_

View-limiting Device

Aircraft Documents: Airworthiness Certificate, Registration Certificate and Operating Limitations

Aircraft Maintenance Records: Logbook Record of Airworthiness Inspections and AD Compliance

Pilot's Operating Handbook and SLCAA-Approved Flight Manual

#### **PERSONAL EQUIPMENT**

Skill Test Standards

Lesson Plan Library

Current Aeronautical Charts

Computer and Plotter

Flight Plan and Flight Log Forms

Current AIM, Airport Facility Directory, and Appropriate Publications

#### **PERSONAL RECORDS**

Identification—Photo/Signature ID

Pilot Certificate

Current and Appropriate Medical Certificate

Completed Form, Airman Licence and/or

Rating Application

Airman Knowledge Test Report

Pilot Logbook with Appropriate Instructor Endorsements

Notice of Disapproval (if applicable)

Approved School Graduation Certificate (if applicable)

Examiner's Fee (if applicable)

## **1.2 EXAMINER'S SKILL TEST CHECKLIST**

### **Flight Instructor—Instrument**

**NAME:** \_\_\_\_\_

**DATE/TIME:** \_\_\_\_\_

**LOCATION:** \_\_\_\_\_

#### **I. FUNDAMENTALS OF INSTRUCTING**

- A.** The Learning Process
- B.** Human Behavior and Effective Communication
- C.** The Teaching Process
- D.** Teaching Methods
- E.** Critique and Evaluation
- F.** Flight Instructor Characteristics and Responsibilities
- G.** Planning Instructional Activity
- H.** Planning an Instrument Proficiency Check

#### **II. TECHNICAL SUBJECT AREAS**

- A.** Aircraft Flight Instruments and Navigation Equipment
- B.** Aeromedical Factors
- C.** Regulations and Publications Related to IFR Operations
- D.** Logbook Entries Related to Instrument Instruction

#### **III. PREFLIGHT PREPARATION**

- A.** Weather Information
- B.** Cross-Country Flight Planning
- C.** Instrument Cockpit Check

#### **IV. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT**

- A.** Maneuver Lesson

#### **V. AIR TRAFFIC CONTROL CLEARANCES AND PROCEDURES**

- A.** Air Traffic Control Clearances
- B.** Compliance with Departure, Enroute, and Arrival

#### **VI. FLIGHT BY REFERENCE TO INSTRUMENTS**

- A.** Straight-and-Level Flight
- B.** Turns
- C.** Change of Airspeed in Straight-and-Level and Turning Flight
- D.** Constant Airspeed Climbs and Descents
- E.** Constant Rate Climbs and Descents
- F.** Timed Turns to Magnetic Compass Headings
- G.** Steep Turns
- H.** Recovery from Unusual Flight Attitudes

#### **VII. NAVIGATION SYSTEMS**

- A.** Intercepting and Tracking Navigational Systems and DME Arcs
- B.** Holding Procedures

#### **VIII. INSTRUMENT APPROACH PROCEDURES**

- A.** Non-Precision Instrument Approach

- B. Precision Instrument Approach
- C. Missed Approach
- D. Circling Approach (Airplane)
- E. Landing from a Straight-In Approach
- IX. EMERGENCY OPERATIONS**
  - A. Loss of Communications
  - B. Loss of Gyro Attitude and Heading Indicators
  - C. Engine Failure During Straight-and-Level Flight and Turns
  - D. Instrument Approach—One Engine Inoperative
- X. POSTFLIGHT PROCEDURES**
  - A. Checking Instruments and Equipment
- XI. PERFORMANCE MANEUVERS**
  - A. Rapid Deceleration
  - B. Straight-In Autorotation
  - C. 180° Autorotation
- XII. EMERGENCY OPERATIONS**
  - A. Power Failure at a Hover
  - B. Power Failure at Altitude
  - C. Settling-With-Power
  - D. Low Rotor RPM Recovery
  - E. Anti-torque System Failure
  - F. Dynamic Rollover
  - G. Ground Resonance
  - H. Low “G” Conditions
  - I. Systems and Equipment Malfunctions
  - J. Emergency Equipment and Survival Gear
- XIII. SPECIAL OPERATIONS**
  - A. Confined Area Operation
  - B. Pinnacle/Platform Operation
- XIV. POSTFLIGHT PROCEDURES**
  - A. After-Landing and Securing

### **1.3 AREAS OF OPERATION**

#### **I. AREA OF OPERATION: FUNDAMENTALS OF INSTRUCTING**

**Note:** The examiner shall select at least TASKs E, F, and G and one other TASK.

##### **A. TASK: LEARNING PROCESS**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements of the learning process by describing:

- (1) Learning theory
- (2) Characteristics of learning
- (3) Principles of learning
- (4) Levels of learning
- (5) Learning physical skills
- (6) Memory
- (7) Transfer of learning

##### **B. TASK: HUMAN BEHAVIOUR AND EFFECTIVE COMMUNICATION**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements related to human behaviour and effective communication by describing:

- (1) Human behaviour:
  - (a) Control of human behaviour
  - (b) Human needs
  - (c) Defence mechanisms
  - (d) The flight instructor as a practical psychologist
- (2) Effective communication:
  - (a) Basic elements of communication
  - (b) Barriers of effective communication
  - (c) Developing communication skills

##### **C. TASK: TEACHING PROCESS**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements of the teaching process by describing:

- (1) Preparation of a lesson for a ground or flight instructional period.
- (2) Presentation methods.
- (3) Application, by the student, of the material or procedure that was presented.
- (4) Review and evaluation of student performance.

##### **D. TASK: TEACHING METHODS**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements of teaching methods by describing:

- (1) Material organisation
- (2) The lecture method
- (3) The cooperative or group learning method
- (4) The guided discussion method
- (5) The demonstration-performance method
- (6) Computer-based training method

##### **E. TASK: CRITIQUE AND EVALUATION**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements of critique and evaluation by explaining:

- (1) Critique:
  - (a) Purpose and characteristics of an effective critique.
  - (b) Methods and ground rules for a critique.
- (2) Evaluation:
  - (a) Characteristics of effective oral questions and what types to avoid.
  - (b) Responses to student questions.

- (c) Characteristics and development of an effective written test.
- (d) Characteristics and uses of performance tests, specifically, the SLCAA skill test standards.

**F. TASK: FLIGHT INSTRUCTOR CHARACTERISTICS AND RESPONSIBILITIES**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements of instructor responsibilities and professionalism by describing:

- (1) Aviation instructor responsibilities in:
  - (a) Providing adequate instruction.
  - (b) Establishing standards of performance.
  - (c) Emphasising the positive.
- (2) Flight instructor responsibilities in:
  - (a) Providing student pilot evaluation and supervision.
  - (b) Preparing skill test recommendations and endorsements.
  - (c) Determining requirements for conducting additional training and endorsement requirements.
- (3) Professionalism as an instructor by:
  - (a) Explaining important personal characteristics.
  - (b) Describing methods to minimise student frustration.

**G. TASK: PLANNING INSTRUCTIONAL ACTIVITY**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements of planning instructional activity by describing:

- (1) Developing objectives and standards for a course of training.
- (2) Theory of building blocks of learning.
- (3) Requirements for developing a training syllabus.
- (4) Purpose and characteristics of a lesson plan.

**H. TASK: PLANNING AN INSTRUMENT PROFICIENCY CHECK ACTIVITY**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements of planning an instrument proficiency check activity by describing:

- (1) The use of the instrument skill test standard in administering the check.
- (2) Required AREA OF OPERATIONS and TASKs for administering the check.
- (3) Requirement for a plan of action.
- (4) Use of scenarios in testing.
- (5) Required logbook endorsement.

**II. AREA OF OPERATION: TECHNICAL SUBJECT AREAS**

**Note:** The examiner shall select TASKs A and D and at least one other TASK.

**A. TASK: AIRCRAFT FLIGHT INSTRUMENTS AND NAVIGATION EQUIPMENT**

**Objective:** To determine that the applicant exhibits instructional knowledge of aircraft.

- (1) Flight instrument systems and their operating characteristics to include:
  - (a) Pitot-static system
  - (b) Attitude indicator
  - (c) Heading indicator/horizontal situation indicator/remote
  - (d) Magnetic indicator
  - (e) Magnetic compass
  - (f) Turn-and-slip indicator/turn coordinator
  - (g) Electronic flight instrument systems
- (2) Navigation equipment and their operating characteristics to include:
  - (a) VHF Omni Directional Radio Range (VOR)
  - (b) Distance measuring equipment (DME)
  - (c) Instrument landing system (ILS)
  - (d) Marker beacon receiver/indicators

- (e) Automatic direction finder (ADF)
  - (f) Global positioning system (GPS)
  - (g) Autopilot
  - (h) Flight management system (FMS)
  - (i) Situational awareness tools, such as flight information service (FIS), traffic information service (TIS), and terrain awareness (TA)
- (3) Anti-ice/de-icing and weather detection equipment and their operating characteristics to include:
- (a) Airframe
  - (b) Propeller or rotor
  - (c) Air intake
  - (d) Fuel system
  - (e) Pitot-static system
  - (f) Radar/lightening detection system

**B. TASK: AEROMEDICAL FACTORS**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements related to aeromedical factors by describing the effects, corrective action, and safety considerations of:

- (1) Hypoxia
- (2) Hyperventilation
- (3) Middle ear and sinus problems
- (4) Spatial disorientation
- (5) Motion sickness
- (6) Alcohol and drugs
- (7) Carbon monoxide poisoning
- (8) Evolved gases from scuba diving
- (9) Stress and fatigue

**C. TASK: REGULATIONS AND PUBLICATIONS RELATED TO IFR OPERATIONS**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements related to regulations and publications, (related to instrument flight and instrument flight instruction) their purpose, general content, availability, and method of revision by describing:

- (1) SLCAR Parts 1A and 6
- (2) Instrument Flying Handbook
- (3) Aeronautical Information Manual
- (4) Skill test standards
- (5) Aerodrome Facility Directory
- (6) Standard Departures/Terminal Arrivals
- (7) En Route Charts
- (8) Standard Instrument Approach Procedure Charts

**D. TASK: LOGBOOK ENTRIES RELATED TO INSTRUMENT INSTRUCTION**

**Objective:** To determine that the applicant exhibits instructional knowledge of logbook entries related to instrument instruction by describing:

- (1) Logbook entries or training records for instrument flight/instrument flight instruction or ground instruction given.
- (2) Preparation of a recommendation for an instrument rating skill test, including appropriate logbook entry.
- (3) Required endorsement of a pilot logbook for satisfactory completion of an instrument proficiency check.
- (4) Required flight instructor records.

### **III. AREA OF OPERATION: PRE-FLIGHT PREPARATION**

**Note:** The examiner shall select at least one TASK.

#### **A. TASK: WEATHER INFORMATION**

**Note:** Where current weather reports, forecasts, or other pertinent information is not available, this information shall be simulated by the examiner in a manner, which shall adequately measure the applicant's competence.

**Objective:** To determine that the applicant exhibits instructional knowledge related to IFR weather information.

- (1) Sources of weather:
  - (a) AWOS, ASOS, and ATIS reports
  - (b) PATWAS and TIBS
  - (c) TWEB
- (2) Weather reports and charts:
  - (a) METAR, TAF, FA, and radar reports
  - (b) In-flight weather advisories, including icing
  - (c) Surface analysis, weather depiction, and radar summary charts
  - (d) Significant weather prognostic charts
  - (e) Winds and temperatures aloft charts

#### **B. TASK: CROSS-COUNTRY FLIGHT PLANNING**

**References:** SLCAR Part 6

**Objective:** To determine that the applicant exhibits instructional knowledge of cross-country flight planning by describing the:

- (1) Regulatory requirements for instrument flight within various types of airspace.
- (2) Computation of estimated time en route and total fuel requirement for an IFR cross-country flight.
- (3) Selection and correct interpretation of the current and applicable en route charts, DPs, STARs, and standard instrument approach procedure charts.
- (4) Procurement and interpretation of the applicable NOTAM information.
- (5) Preparation and filing of an actual or simulated IFR flight plan.
- (6) Demonstrates adequate knowledge of GPS and RAIM capability, when aircraft is so equipped.

#### **C. TASK: INSTRUMENT COCKPIT CHECK**

**Objective:** To determine that the applicant exhibits instructional knowledge of an instrument cockpit check by describing the reasons for the check and the detection of defects that could affect safe instrument flight. The check shall include the following:

- (1) Communications equipment
- (2) Navigation equipment
- (3) Magnetic compass
- (4) Heading indicator/horizontal situation indicator/radio magnetic indicator
- (5) Attitude indicator
- (6) Altimeter
- (7) Turn-and-slip indicator/turn coordinator
- (8) Vertical-speed indicator
- (9) Airspeed indicator
- (10) Outside air temperature
- (11) Clock
- (12) FMS
- (13) Autopilot
- (14) Determine database validity with GPS

### **IV. AREA OF OPERATION: PRE-FLIGHT LESSON ON A MANOEUVRE TO BE PERFORMED IN FLIGHT**



**Note:** The examiner shall select at least one manoeuvre from AREAS OF OPERATION VI through IX and ask the applicant to present a pre-flight lesson on the selected manoeuvre as the lesson would be taught to a student. Previously developed lesson plans from the applicant's library may be used.

**A. TASK: MANOEUVRE LESSON**

**Objective:** To determine that the applicant exhibits instructional knowledge of the selected manoeuvre by:

- (1) Using a lesson plan that includes all essential items to make an effective and organized presentation.
- (2) Stating the objective.
- (3) Giving an accurate, comprehensive, oral description of the manoeuvre, including the elements and associated common errors.
- (4) Using instructional aids, as appropriate.
- (5) Describing the recognition, analysis, and correction of common errors.

**V. AREA OF OPERATION: AIR TRAFFIC CONTROL CLEARANCES AND PROCEDURES**

**Note:** The examiner shall select at least one TASK.

**A. TASK: AIR TRAFFIC CONTROL CLEARANCES**

**Objective:** To determine that the applicant exhibits instructional knowledge of air traffic control clearances by describing:

- (1) Pilot and controller responsibilities to include tower, en route control, and clearance void times.
- (2) Correct and timely copying of an ATC clearance.
- (3) Correct and timely read back of an ATC clearance, using standard phraseology.
- (4) Correct interpretation of an ATC clearance and, when necessary, request for clarification, verification, or change.
- (5) Setting of communication and navigation frequencies in compliance with an ATC clearance.

**B. TASK: COMPLIANCE WITH DEPARTURE, EN ROUTE, AND ARRIVAL PROCEDURES AND CLEARANCES**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements related to compliance with departure, en route, and arrival procedures and clearances by describing:

- (1) Selection and use of current and appropriate navigation publications.
- (2) Pilot and controller responsibilities with regard to departure procedures, en route low and high-altitude charts, and STARs.
- (3) Selection and use of appropriate communications frequencies.
- (4) Selection and identification of the navigation aids.
- (5) Accomplishment of the appropriate checklist items.
- (6) Pilot's responsibility for compliance with vectors and also altitude, airspeed, climb, descent, and airspace restrictions.
- (7) Pilot's responsibility for the interception of courses, radials, and bearings appropriate to the procedure, route, or clearance.
- (8) Procedures to be used in the event of two way communications failure.

**VI. AREA OF OPERATION: FLIGHT BY REFERENCE TO INSTRUMENTS**

**Note:** The examiner shall select TASK H and at least one other TASK. The applicant shall select either the primary and supporting or control and performance method for teaching this AREA OF OPERATION.

**A. TASK: STRAIGHT-AND-LEVEL FLIGHT**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of teaching straight-and-level flight by describing:
  - (a) The relationship of pitch, bank, and power in straight-and-level flight.
  - (b) Procedure using full panel and partial panel.
  - (c) Coordination of controls and trim.

- (2) Exhibits instructional knowledge of common errors related to straight-and-level flight by describing:
  - (a) Slow or improper cross-check during straight-and-level flight.
  - (b) Improper power control.
  - (c) Failure to make smooth, precise corrections, as required.
  - (d) Uncoordinated use of controls.
  - (e) Improper trim control.
- (3) Demonstrates and simultaneously explains straight-and-level flight from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to straight-and-level flight.

**B. TASK: TURNS**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of teaching turns by describing:
  - (a) The relationship of true airspeed and angle of bank to a standard rate turn.
  - (b) Technique and procedure using full panel and partial panel for entry and recovery of a constant rate turn, including the performance of a half-standard rate turn.
  - (c) Coordination of controls and trim.
- (2) Exhibits instructional knowledge of common errors related to turns by describing:
  - (a) Improper cross-check procedures.
  - (b) Improper bank control during roll-in and roll-out.
  - (c) Failure to make smooth, precise corrections, as required.
  - (d) Uncoordinated use of controls.
  - (e) Improper trim technique.
- (3) Demonstrates and simultaneously explains turns from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to turns.

**C. TASK: CHANGE OF AIRSPEED IN STRAIGHT-AND-LEVEL AND TURNING FLIGHT**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of teaching change of airspeed in straight-and-level flight and turns by describing:
  - (a) Procedure using full panel and partial panel for maintaining altitude and changing airspeed in straight-and-level and turning flight.
  - (b) Coordination of controls and trim technique.
- (2) Exhibits instructional knowledge of common errors related to changes of airspeed in straight-and-level and turning flight by describing:
  - (a) Slow or improper cross-check during straight-and-level flight and turns.
  - (b) Improper power control.
  - (c) Failure to make smooth, precise corrections, as required.
  - (d) Uncoordinated use of controls.
  - (e) Improper trim technique.
- (3) Demonstrates and simultaneously explains changes of airspeed in straight-and-level and turning flight from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to changes of airspeed in straight-and-level and turning flight.

**D. TASK: CONSTANT AIRSPEED CLIMBS AND DESCENTS**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of constant airspeed climbs and descents by describing:
  - (a) Procedure using full panel and partial panel for an entry into a straight climb or climbing turn, from either cruising or climbing airspeed.
  - (b) A stabilised straight climb or climbing turn.

- (c) A level-off from a straight climb or climbing turn, at either cruising or climbing airspeed.
  - (d) Procedure using full panel and partial panel for an entry into a straight descent or descending turn from either cruising or descending airspeed.
  - (e) A stabilised straight descent or descending turn.
  - (f) A level-off from a straight descent or descending turn, at either cruising or descending airspeed.
- (2) Exhibits instructional knowledge of common errors related to constant airspeed climbs and descents by describing:
    - (a) Failure to use a proper power setting and pitch attitude.
    - (b) Improper correction of vertical rate, airspeed, heading, or rate-of-turn errors.
    - (c) Uncoordinated use of controls.
    - (d) Improper trim control.
  - (3) Demonstrates and simultaneously explains a constant airspeed climb and a constant airspeed descent from an instructional standpoint.
  - (4) Analyses and corrects simulated common errors related to constant airspeed climbs and descents.

**E. TASK: CONSTANT RATE CLIMBS AND DESCENTS**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of constant rate climbs and descents by describing:
  - (a) Procedure using full panel and partial panel for an entry into a constant rate climb or descent.
  - (b) A stabilised constant rate straight climb or climbing turn, using the vertical speed indicator.
  - (c) A level-off from a constant rate straight climb or climbing turn.
  - (d) An entry into a constant rate straight descent or descending turn.
  - (e) A stabilised constant rate straight descent or descending turn using the vertical speed indicator.
  - (f) Level-off from a constant rate straight descent or descending turn.
- (2) Exhibits instructional knowledge of common errors related to constant rate climbs and descents by describing:
  - (a) Failure to use a proper power setting and pitch attitude.
  - (b) Improper correction of vertical rate, airspeed, heading, or rate-of-turn errors.
  - (c) Uncoordinated use of controls.
  - (d) Improper trim control.
- (3) Demonstrates and simultaneously explains a constant rate climb and a constant rate descent from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to constant rate climbs and descents.

**F. TASK: TIMED TURNS TO MAGNETIC COMPASS HEADINGS**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of timed turns to magnetic compass headings by describing:
  - (a) Operating characteristics and errors of the magnetic compass.
  - (b) Calibration of the miniature aircraft of the turn coordinator<sup>2</sup> both right and left, using full panel and the clock.
  - (c) Procedures using full panel and partial panel performing compass turns to a specified heading.
- (2) Exhibits instructional knowledge of common errors related to timed turns to magnetic compass headings by describing:
  - (a) Incorrect calibration procedures.
  - (b) Improper timing.

- (c) Uncoordinated use of controls.
- (d) Improper trim control.
- (3) Demonstrates and simultaneously explains timed turns to magnetic compass headings from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to timed turns to magnetic compass headings. 2If the aircraft used for the skill test has a turn needle, substitute turn needle for miniature aircraft of turn coordinator.

#### **G. TASK: STEEP TURNS**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of steep turns by describing:
  - (a) Procedure using full panel and partial panel for entry and recovery of a steep turn.
  - (b) The need for a proper instrument cross-check.
  - (c) Roll-in/roll-out procedure.
  - (d) Coordination of control and trim.
- (2) Exhibits instructional knowledge of common errors related to steep turns by describing:
  - (a) Failure to recognise and make proper corrections for pitch, bank, or power errors.
  - (b) Failure to compensate for precession of the horizon bar of the attitude indicator.
  - (c) Uncoordinated use of controls.
  - (d) Improper trim technique.
- (3) Demonstrates and simultaneously explains steep turns from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to steep turns.

#### **H. TASK: RECOVERY FROM UNUSUAL FLIGHT ATTITUDES**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of recovery from unusual flight attitudes by describing:
  - (a) Conditions or situations, which contribute to the development of unusual flight attitudes.
  - (b) Procedure using full panel and partial panel for recovery from nose-high and noselow unusual flight attitudes.
- (2) Exhibits instructional knowledge of common errors related to recovery from unusual flight attitudes by describing:
  - (a) Incorrect interpretation of the flight instruments.
  - (b) Inappropriate application of controls.
- (3) Demonstrates and simultaneously explains recovery from unusual flight attitudes, solely by reference to instruments, from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to recovery from unusual flight attitudes.

### **VII. AREA OF OPERATION: NAVIGATION SYSTEMS**

**Note:** The examiner shall select TASKs A and B. If aircraft is not DME equipped, performance of DME arcs shall be tested orally.

#### **A. TASK: INTERCEPTING AND TRACKING NAVIGATIONAL SYSTEMS AND DME ARCS**

**References:** SLCAR Part 6

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of the elements of intercepting and tracking navigational systems and DME arcs by describing:
  - (a) Tuning and identification of a navigational facility.
  - (b) Setting of a selected course on the navigation selector or the correct identification of a selected bearing on the RMI.
  - (c) Method for determining aircraft position relative to a facility.
  - (d) Procedure for intercepting and maintaining a selected course.
  - (e) Procedure for intercepting and maintaining a DME arc.
  - (f) Procedure for intercepting a course or localiser from a DME arc.

- (g) Recognition of navigation facility or waypoint passage.
- (h) Recognition of navigation receiver or facility failure.
- (2) Exhibits instructional knowledge of common errors related to intercepting and tracking navigational systems and DME arcs by describing:
  - (a) Incorrect tuning and identification procedures.
  - (b) Failure to properly set the navigation selector on the course to be intercepted.
  - (c) Failure to use proper procedures for course or DME arc interception and tracking.
  - (d) Improper procedures for intercepting a course or localiser from a DME arc.
- (3) Demonstrates and simultaneously explains intercepting and tracking navigational systems and DME arcs from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to intercepting and tracking navigational systems and DME arcs.

**B. TASK: HOLDING PROCEDURES**

**References:** SLCAR Part 6

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of holding procedures by describing:
  - (a) Setting of aircraft navigation equipment.
  - (b) Requirement for establishing the appropriate holding airspeed for the aircraft and altitude.
  - (c) Recognition of arrival at the holding fix and the prompt initiation of entry into the holding pattern.
  - (d) Riming procedure.
  - (e) Correction for wind drift.
  - (f) Use of DME in a holding pattern.
  - (g) Compliance with ATC reporting requirements.
- (2) Exhibits instructional knowledge of common errors related to holding procedures by describing:
  - (a) Incorrect setting of aircraft navigation equipment.
  - (b) Inappropriate altitude, airspeed, and bank control.
  - (c) Improper timing.
  - (d) Improper wind drift correction.
  - (e) Failure to recognise holding fix passage.
  - (f) Failure to comply with ATC instructions.
- (3) Demonstrates and simultaneously explains holding procedures from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to holding procedures.

**VIII. AREA OF OPERATION: INSTRUMENT APPROACH PROCEDURES**

**Note:** The examiner shall select TASKs A and B, to be combined with TASK C, D, or E. At least one nonprecision approach procedure shall be accomplished without the use of the gyroscopic heading and attitude indicators under simulated instrument conditions. Circling approaches are not applicable to helicopters.

**Note:** The requirements for conducting a GPS approach for the purpose of this test are explained on pages 9 and 10 of the Introduction.

**A. TASK: NON-PRECISION INSTRUMENT APPROACH**

**References:** SLCAR Part 6

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of the elements of a non-precision instrument approach by describing:
  - (a) Selection of the appropriate instrument approach procedure chart.
  - (b) Pertinent information on the selected instrument approach chart.
  - (c) Radio communications with ATC and compliance with ATC clearances, instructions and procedures.

- (d) Appropriate aircraft configuration, airspeed, and checklist items.
- (e) Selection, tuning, identification, and determination of operational status of ground and aircraft navigation equipment.
- (f) Adjustments applied to the published MDA and visibility criteria for the aircraft approach category.
- (g) Maintenance of altitude, airspeed, and track, where applicable.
- (h) Establishment and maintenance of an appropriate rate of descent during the final approach segment.
- (i) Factors that should be considered in determining whether:
  - 1. The approach should be continued straight-in to a landing;
  - 2. A circling approach to a landing should be made; or
  - 3. A missed approach should be performed.
- (2) Exhibits instructional knowledge of common errors related to a non-precision instrument approach by describing:
  - (a) Failure to have essential knowledge of the information on the instrument approach chart.
  - (b) Incorrect communications procedures or noncompliance with ATC clearances or instructions.
  - (c) Failure to accomplish checklist items.
  - (d) Faulty basic instrument flying technique.
  - (e) Inappropriate descent below the MDA.
- (3) Demonstrates and simultaneously explains a non-precision instrument approach from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to a non-precision instrument approach.

**B. TASK: PRECISION INSTRUMENT APPROACH**

**References:** SLCAR Part 6

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of a precision instrument approach by describing:
  - (a) Selection of the appropriate instrument approach chart.
  - (b) Pertinent information on the selected instrument approach chart.
  - (c) Selection, tuning, identification, and determination of operational status of ground and aircraft navigation equipment.
  - (d) Radio communications with ATC and compliance with ATC clearances, instructions, and procedures.
  - (e) Appropriate aircraft configuration, airspeed, and checklist items.
  - (f) Adjustments applied to the published DH/DA and visibility criteria for the aircraft approach category.
  - (g) Maintenance of altitude, airspeed, and track, where applicable.
  - (h) Establishment and maintenance of an appropriate rate of descent during the final approach segment.
  - (i) Factors that should be considered in determining whether:
    - 1. The approach should be continued straight-in to a landing;
    - 2. A circling approach to a landing should be made; or
    - 3. A missed approach should be performed.
- (2) Exhibits instructional knowledge of common errors related to a precision instrument approach by describing:
  - (a) Failure to have essential knowledge of the information on the instrument approach procedure chart.
    - (a) Incorrect communications procedures or noncompliance with ATC clearances.
    - (b) Failure to accomplish checklist items.

- (c) Faulty basic instrument flying technique.
- (d) Inappropriate application of DH/DA.
- (3) Demonstrates and simultaneously explains a precision instrument approach from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to a precision instrument approach.

**C. TASK: MISSED APPROACH**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of a missed approach procedure by describing:
  - (a) Pertinent information on the selected instrument approach chart.
  - (b) Conditions requiring a missed approach.
  - (c) Initiation of the missed approach, including the prompt application of power, establishment of a climb attitude, and reduction of drag.
  - (d) Required report to ATC.
  - (e) Compliance with the published or alternate missed approach procedure.
  - (f) Notification of ATC if the aircraft is unable to comply with a clearance, instruction, restriction, or climb gradient.
  - (g) Performance of recommended checklist items appropriate to the go-around procedure.
  - (h) Importance of positive aircraft control.
- (2) Exhibits instructional knowledge of common errors related to a missed approach by describing:
  - (a) Failure to have essential knowledge of the information on the instrument approach chart.
  - (b) Failure to recognise conditions requiring a missed approach.
  - (c) Failure to promptly initiate a missed approach.
  - (d) Failure to make the required report to ATC.
  - (e) Failure to comply with the missed approach procedure.
  - (f) Faulty basic instrument flying technique.
  - (g) Descent below the MDA prior to initiating a missed approach.
- (3) Demonstrates and simultaneously explains a missed approach from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to a missed approach.

**D. TASK: CIRCLING APPROACH (Aeroplane)**

**References:** SLCAR Part 6

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of the elements of a circling approach by describing:
  - (a) Selection of the appropriate circling approach manoeuvre considering the manoeuvring capabilities of the aircraft.
  - (b) Circling approach minimums on the selected instrument approach chart.
  - (c) Compliance with advisories, clearances instructions, and/or restrictions.
  - (d) Importance of flying a circling approach pattern that does not exceed the published visibility criteria.
  - (e) Maintenance of an altitude no lower than the circling MDA until in a position from which a descent to a normal landing can be made.
- (2) Exhibits instructional knowledge of common errors related to a circling approach by describing:
  - (a) Failure to have essential knowledge of the circling approach information on the instrument approach chart.
  - (b) Failure to adhere to the published MDA and visibility criteria during the circling approach manoeuvre.

- (c) Inappropriate pilot technique during transition from the circling manoeuvre to the landing approach.
- (3) Demonstrates and simultaneously explains a circling approach from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to a circling approach.

**E. TASK: LANDING FROM A STRAIGHT-IN APPROACH**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of the elements related to landing from a straight-in approach by describing:
  - (a) Effect of specific environmental, operational, and meteorological factors.
  - (b) Transition to, and maintenance of, a visual flight condition.
  - (c) Adherence to ATC advisories, such as NOTAMs, wind shear, wake turbulence, runway surface, and braking conditions.
  - (d) Completion of appropriate checklist items.
  - (e) Maintenance of positive aircraft control.
- (2) Exhibits instructional knowledge of common errors related to landing from a straight-in approach by describing:
  - (a) Inappropriate division of attention during the transition from instrument to visual flight conditions.
  - (b) Failure to complete required checklist items.
  - (c) Failure to properly plan and perform the turn to final approach.
  - (d) Improper technique for wind shear, wake turbulence, and crosswind.
  - (e) Failure to maintain positive aircraft control throughout the complete landing manoeuvre.
- (3) Demonstrates and simultaneously explains a landing from a straight-in approach from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to landing from a straight-in approach.

**IX. AREA OF OPERATION: EMERGENCY OPERATIONS**

**Note:** The examiner shall select at least one TASK. The examiner shall omit TASKs C and D unless the applicant furnishes a multi-engine aeroplane for the skill test, then TASK C or D is mandatory.

**A. TASK: LOSS OF COMMUNICATIONS**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements related to loss of communications by describing:

- (1) Recognition of loss of communications.
- (2) When to continue with flight plan as filed or when to deviate.
- (3) How to determine the time to begin an approach at destination.

**B. TASK: LOSS OF GYRO ATTITUDE AND HEADING INDICATORS**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of the elements related to loss of gyro attitude and heading indicators by describing:
  - (a) Recognition of inaccurate or inoperative gyro instruments.
  - (b) Notification of ATC of gyro loss and whether able to continue with flight clearance.
  - (c) Importance of timely transition from full to partial panel condition.
- (2) Exhibits instructional knowledge of common errors related to loss of gyro attitude and heading indicators by describing:
  - (a) Slow to recognise inaccurate or inoperative gyro instruments.
  - (b) Failure to notify ATC of situation.
  - (c) Failure to adequately transition from full to partial panel condition.
- (3) Demonstrates and simultaneously explains loss of gyro attitude and heading indicators by conducting a non-precision instrument approach without the use of these instruments.  
(Use Task A, AREA OPERATION VIII)
- (4) Analyses and corrects common errors related to loss of gyro attitude and heading indicators.



**C. TASK: ENGINE FAILURE DURING STRAIGHT-AND-LEVEL FLIGHT AND TURNS**

**References:** SLCAR Part 6

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of the elements related to engine failure during straight-and-level flight and turns, solely by reference to instruments by describing:
  - (a) Appropriate methods to be used for identifying and verifying the inoperative engine.
  - (b) Technique for maintaining positive aircraft control by reference to instruments.
  - (c) Importance of accurately assessing the aircraft's performance capability with regard to action that maintains altitude or minimum sink rate considering existing conditions.
- (2) Exhibits instructional knowledge of common errors related to engine failure during straight-and-level flight and turns, solely by reference to instruments by describing:
  - (a) Failure to recognise an inoperative engine.
  - (b) Hazards of improperly identifying and verifying the inoperative engine.
  - (c) Failure to properly adjust engine controls and reduce drag.
  - (d) Failure to establish and maintain the best engine inoperative airspeed.
  - (e) Failure to follow the prescribed checklist.
  - (f) Failure to establish and maintain the recommended flight attitude for best performance.
  - (g) Failure to maintain positive aircraft control while manoeuvring.
  - (h) Hazards of exceeding the aircraft's operating limitations.
  - (i) Faulty basic instrument flying technique.
- (3) Demonstrates and simultaneously explains straight-and-level flight and turns after engine failure, solely by reference to instruments, from an instructional standpoint.
- (4) Analyses and corrects simulated common errors related to straight-and-level flight and turns after engine failure, solely by reference to instruments.

**D. TASK: INSTRUMENT APPROACH – ONE-ENGINE INOPERATIVE**

**Objective:** To determine that the applicant:

- (1) Exhibits instructional knowledge of the elements related to an instrument approach with one engine inoperative by describing:
  - (a) Maintenance of altitude, airspeed and track appropriate to the phase of flight or approach segment.
  - (b) Procedure if unable to comply with an ATC clearance or instruction.
  - (c) Application of necessary adjustments to the published MDA and visibility criteria for the aircraft approach category.
  - (d) Establishment and maintenance of an appropriate rate of descent during the final approach segment.
  - (e) Factors that should be considered in determining whether:
    1. The approach should be continued straight-in to a landing; or
    2. A circling approach to a landing should be performed.
- (2) Exhibits instructional knowledge of common errors related to an instrument approach with one engine inoperative by describing:
  - (a) Failure to have essential knowledge of the information that appears on the selected instrument approach chart.
  - (b) Failure to use proper communications procedures.
  - (c) Noncompliance with ATC clearances.
  - (d) Incorrect use of navigation equipment.
  - (e) Failure to identify and verify the inoperative engine and to follow the emergency checklist.
  - (f) Inappropriate procedure in the adjustment of engine controls and the reduction of drag.

- (g) Inappropriate procedure in the establishment and maintenance of the best engine inoperative airspeed.
- (h) Failure to establish and maintain the proper flight attitude for best performance.
  - 1. Failure to maintain positive aircraft control.
  - 2. Faulty basic instrument flying technique.
  - 3. Inappropriate descent below the MDA or DH.
  - 4. Faulty technique during roundout and touchdown.
- (i) Demonstrates and simultaneously explains an instrument approach with one engine inoperative from an instructional standpoint.
- (j) Analyses and corrects simulated common errors related to an instrument approach with one engine inoperative.

**X. AREA OF OPERATION: POST-FLIGHT PROCEDURES**

**A. TASK: CHECKING INSTRUMENTS AND EQUIPMENT**

**Objective:** To determine that the applicant exhibits instructional knowledge of the elements related to checking instruments and equipment by describing:

- (1) Importance of noting instruments and navigation equipment for improper operation.
- (2) Reasons for making a written record of improper operation and/or calibration of instruments prior to next IFR flight.

## **APPENDIX: TASK VS. FLIGHT SIMULATION DEVICE CREDIT**

### **A.1 TASK VS SIMULATION DEVICE CREDIT**

Examiners conducting the instrument rating skill tests with flight simulation devices (FTDs) should consult appropriate documentation to ensure that the device has been approved for training, testing, or checking. The documentation for each device should reflect that the following activities have occurred:

- (1) The device must be evaluated, determined to meet the appropriate standards, and assigned the appropriate qualification level. The device must continue to meet qualification standards through continuing evaluations.
- (2) The SLCAA must approve the device for training, testing, and checking the specific flight TASKs listed in this appendix.
- (3) The device must continue to support the level of student or applicant performance required by this skill test standard.

**Note:** Users of the following chart are cautioned that use of the chart alone is incomplete. The description and OBJECTIVE of each TASK as listed in the body of the skill test standard, including all NOTES, must also be incorporated for accurate simulation device use.

### **A.2 USE OF CHART**

X Creditable

A Creditable if appropriate systems are installed and operating

**Notes:**

- (1) If a FTDs or a flight simulator is used for the skill test, the instrument approach procedures conducted in that FTD or flight simulator are limited to one-precision and one non-precision approach procedure.
- (2) Post-flight procedures means, closing flight plans, checking for discrepancies and malfunctions, and noting them on a log or maintenance form.

**FLIGHT TASK**

**FLIGHT SIMULATION DEVICE LEVEL**

Areas of Operation	1	2	3	4	5	6	7	A	B	C	D
<b>II. Preflight Procedures</b>											
C. Instrument Cockpit Check*	--	A	X	A	A	X	X	X	X	X	X
<b>III. Air Traffic Control Clearances and Procedures</b>											
A. Air Traffic Control Clearances*	--	A	X	A	A	X	X	X	X	X	X
B. Departure, En Route, and Arrival Clearances	--	--	X	--	--	X	X	X	X	X	X
C. Holding Procedures	--	--	X	--	--	X	X	X	X	X	X
<b>IV. Flight by Reference to Instruments</b>											
A. Straight-and-Level Flight	--	--	X	--	--	X	X	X	X	X	X
B. Turns	--	--	X	--	--	X	X	X	X	X	X
C. Change of Airspeed in Straight-and-Level and Turning Flight											
D. Constant Airspeed Climbs and Descents	--	--	X	--	--	X	X	X	X	X	X
E. Constant Rate Climbs and Descents	--	--	X	--	--	X	X	X	X	X	X
F. Timed Turns to Magnetic Compass Headings	--	--	--	X	--	--	X	X	X	X	X
G. Steep Turns	--	--	X	--	--	X	X	X	X	X	X
H. Recovery from Unusual Flight Attitudes	--	--	--	--	--	--	--	X	X	X	X
<b>V. Navigation Systems</b>											
A. Intercepting and Tracking Navigational Systems and DME ARCS	--	A	X	--	A	X	X	X	X	X	X
B. Holding Procedures	--	--	X	--	--	X	X	X	X	X	X
<b>VI. Instrument Approach Procedures</b>											
A. Nonprecision Approach (NPA)	--	--	X	--	--	X	X	X	X	X	X
B. Precision Approach (PA)	--	--	X	--	--	X	X	X	X	X	X
C. Missed Approach	--	--	X	--	--	X	X	X	X	X	X
D. Circling Approach	--	--	--	--	--	--	--	-	--	X	X
E. Landing from a Straight-in or Circling Approach	--	--	--	--	--	--	--	-	--	X	X
<b>VII. Emergency Operations (ME &amp; SE)**</b>											
A. Loss of Communications	--	X	X	--	--	X	X	X	X	X	X
B. Loss of Gyro Attitude and Heading Indicators	--	--	--	--	--	--	X	X	X	X	X
B. Engine Failure during Straight-and-Level Flight and Turns	--	--	X	--	--	X	X	X	X	X	X
C. One Engine Inoperative—Instrument Approach	--	--	--	--	--	--	--	X	X	X	X
<b>VIII. Post flight Procedures</b>											
A. Checking Instruments and Equipment	--	A	X	--	A	X	X	X	X	X	X

\*Aircraft required for those items that cannot be checked using a flight training device or flight simulator

\*\*Multi-engine and Single-engine

