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Flight Test Guide

INSTRUMENT RATING GROUPS 1, 2 AND 3 AEROPLANE

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FLIGHT TEST GUIDE—INSTRUMENT RATING

This flight test guide sets out the techniques, procedures and the marking criteria to be used by Transport Canada Inspectors and Pilot Examiners for the conduct of the flight test required for the issuance of the Instrument Rating – Groups 1, 2 and 3 - Aeroplane.

It is also intended for the use of flight test candidates, flight training units, and flight instructors.

DEFINITIONS

'**flight test item'** means a task, manoeuvre or exercise listed on the flight test report.

'examiner' means a Pilot Examiner, accredited under Part 1 Section 4.3(1) of the *Aeronautics Act*, or a Transport Canada Civil Aviation Inspector authorized to conduct this flight test.

'precision approach' means an ILS or LPV approach that provides lateral and vertical guidance and has the approach criteria published on an officially recognized approach chart.

Note: LPV approaches will be indicated on the flight test report by filling the ILS circle and inserting a note in the Remarks section of the report.

ACRONYMS

AAE: Above aerodrome elevation
AFM: Aircraft Flight Manual
ATC: Air traffic control
ATS: Air traffic service
BC: Back course
CAD: Canadian Aviation Document
CAP: Canada Air Pilot
CAIRS: Civil Aviation Issues Reporting System
CAR: Canadian Aviation Regulation
DA: Decision altitude
DH: Decision height
DME: Distance measuring equipment
FAWP: Final approach waypoint
FD: Upper level wind and temperature forecasts
FFS: Full-flight simulator
GFA: Graphic area forecast
GNSS: Global navigation satellite system
GPS: Global positioning system
IFR: Instrument Fight Rules
ILS: Instrument landing system
IMC: Instrument meteorological conditions
LOC: Localizer
LPV: Localizer performance with vertical guidance
MAP: Missed approach point
MAWP: Missed approach waypoint
MDA: Minimum descent altitude
METAR: Aviation routine weather report
NDB: Non-directional beacon
OEI: One engine inoperative
PIREPS: Pilot reports
POH: Pilot Operating Handbook
RAIM: Receiver autonomous integrity monitoring
RNAV: Area navigation
SIGMET: Significant meteorological information
SIGWX: Significant weather prognostic charts
SOP: Standard Operating Procedures
TAF: Terminal aerodrome forecast
TATC: Transportation Appeal Tribunal of Canada
TSO: Technical Standard Order
VFR: Visual Flight Rules
VOR: Very high frequency omnidirectional range
VMC: Visual meteorological conditions

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GENERAL

ADMISSION TO FLIGHT TEST INITIAL

In order to be admitted to a flight test required for the initial issue of an Instrument Rating, and to meet the requirements of CAR Standard 421.14, the candidate will present:

a) a valid original government-issued photo identification with signature;

b) a valid Pilot Licence;

c) a letter of recommendation from a person qualified in accordance with 425.21(9) certifying that:

   i) the candidate meets the requirements of CAR 421.14(4)(*d*);

   ii) the candidate is considered competent to complete the flight test for the Instrument Rating; and

   iii) the candidate is recommended for the flight test.

d) proof of having successfully completed the written examination (INRAT) within the previous 24 months (CAR 400.03).

Note: The successful completion of a flight test is one of the prerequisites for the application for the issuance of an Instrument Rating. Once all of the prerequisites are met, the candidate may submit an application directly to a Transport Canada office or through the services of an Authorized Person.

ADMISSION TO A PARTIAL FLIGHT TEST

A partial flight test must be conducted within 30 days following the date of the failed complete flight test.

Prior to admission to a partial flight test, the candidate will provide:

a) a valid original government-issued photo identification with signature;

b) a valid Pilot Licence;

c) a copy of the flight test report for the previously failed flight test; and

d) a letter, signed by a person qualified in accordance with CAR 425.21(9) stating that the candidate:

   i) has received further training on the previously failed flight test item;

   ii) is considered to have reached a sufficient level of competency to successfully complete the flight test; and

   iii) is recommended by the instructor or qualified person for the partial flight test.

ADMISSION TO A COMPLETE RE-TEST

For admission to a complete re-test following the failure of a flight test for the **initial** issue of an Instrument Rating, the candidate will conform to the requirements set out in “Admission to Flight Test-Initial”.

For admission to a complete re-test following the failure of a flight test for the **renewal** of an Instrument Rating, the candidate will present a letter of recommendation signed by a person qualified in accordance with CAR 425.21(9) stating that the candidate is considered competent to complete a flight test.

ADMISSION TO FLIGHT TEST - RENEWAL

In order to be admitted to a flight test required for the renewal of an Instrument Rating, the candidate will present:

a) a valid original government-issued photo identification with signature;

b) a valid Pilot Licence; and

c) proof of holding, or having held within the previous 24 months, a valid Canadian Instrument Rating.

Note: Renewals that involve transitioning from a Group 2, 3 or 4 rating to a Group 1 rating may only be conducted in an aircraft or a full-flight simulator, not in a flight-training device (FTD).

In order to be admitted to a partial flight test following failure of a flight test for the renewal of an Instrument Rating, the candidate will present:

a) a valid original government-issued photo identification with signature;

b) a valid Pilot Licence;

c) a copy of the flight test report for the previously failed flight test; and

d) a letter, signed by a person qualified in accordance with CAR 425.21(9) stating that the candidate:

   i) has undergone additional training; and

   ii) is considered competent to undertake the flight test.

Note: If the Instrument Rating has been expired for more than 24 months, the requirements for admission to an initial flight test must be met.

AEROPLANE AND EQUIPMENT REQUIREMENTS

The initial flight test for the Instrument Rating may be conducted in an aeroplane or in a full-flight simulator (FFS) meeting the requirements stated in this section. The flight test for the renewal of the Instrument Rating may be conducted in an aeroplane, in a full-flight simulator or in a flight training device (FTD) meeting the requirements stated in this section.

Aeroplane

An aeroplane to be used for an Instrument Rating flight test will have a valid and current Canadian or Foreign Flight Authority in accordance with CAR 507 and meet the following requirements:

a) be type-approved for IFR flight operations in the AFM/POH or AFM/POH Supplement (CAR 602.07 – *Aircraft Operating Limitations*);

b) be equipped with sufficient navigational equipment to meet the requirements of CAR 605.18 – *Power-driven Aircraft – IFR*;

c) be equipped in accordance with CAR 425.23 - *Training Aircraft Requirements*, Subsections (1), (2) and (7) of the *Personnel Licensing Standards* with the exception that aeroplanes equipped with an electronic primary flight display are exempt from the requirements of Paragraphs 425.23(1)(*b*).

d) GPS equipment must be an approved installation that at least meets TSO C129 requirements for the RNAV(GNSS) approach or any other function, such as use in lieu of a DME or an NDB. For the LPV approach, the GPS must be an approved installation that meets TSO C145a/C146a (WAAS Class 2 or 3). Databases for GPS or FMS units in aeroplanes must be current and up to date;

e) where an observer's seat is occupied by an examiner, it will:

   i) be equipped with a safety harness installed in accordance with the *Airworthiness Standards*;

   ii) be located to permit an unobstructed view of the aircraft instruments, radios and navigation equipment; and

   iii) be equipped to monitor intercom and air to ground and air to air radio communications.

Flight Simulation Training Device

General

a) Any flight simulation training device used for pilot testing, pursuant to Part IV of the *Canadian Aviation Regulations*, shall be approved in accordance with CAR 606.03.

b) The examiner must either be trained in the use of the device or must monitor the candidate's performance while an individual, that has been trained, operates the device in accordance with an agreed-upon script.

c) A flight test in a flight simulation training device will include all portions of a flight as conducted in an aeroplane, i.e. normal engine start, taxi, takeoff, landing, taxi to parking and shutdown. Even though these items are not assessed as flight test items, they must be conducted in a safe manner.

d) The pilot seats will only be occupied by the required crewmembers. In the case of a single-pilot aircraft, that would be the candidate only.

Full Flight Simulator (FFS)

A full-flight simulator used for the Instrument Rating flight test shall be a Level A or higher FFS approved in accordance with the *Aeroplane and Rotorcraft Simulator Manual* (TP 9685). The pilot seats will only be occupied by the required crewmembers. In the case of a single-pilot aeroplane, that would be the candidate only.

Flight Training Device (FTD) (Instrument Rating Renewals only)

An FTD used for a Group 1, 2 or 3 Instrument Rating **renewal** flight test shall be a minimum level 2 aeroplane FTD with the following enhancements:

a) An enclosed cockpit environment, which will have actuation of controls and switches that replicate those in the aeroplane or be representative of a single set of aeroplanes;

b) Crew seats shall have sufficient adjustments to allow the occupant to achieve the design eye reference position appropriate to the aircraft and for the visual system to be installed to align with that eye position;

c) A generic ground handling model that enables representative flare and touch down effects to be produced by the sound and visual systems;

d) Installed systems must simulate the applicable aeroplane system operation. Systems shall be operative to the extent that it shall be possible to perform all normal, abnormal and emergency operations as may be appropriate for the aeroplane during the flight test. Flight and navigation controls, displays and instrumentation must be as set out in CAR 605.18 for IFR operations;

e) The instructor's station must have the capability to introduce failures on all required systems. Once activated, proper system operation must result from system management by the crew member and not require any further input from the instructor's controls;

f) Control forces and control travels which respond in the same manner under the same flight conditions as in the aeroplane or set of aeroplanes being simulated;

g) Aerodynamic modeling shall reflect a rolling movement due to yawing;

h) Communication equipment (intercom and air/ground) corresponding to that installed in the replicated aeroplane or set of aeroplanes;

i) Significant cockpit sounds, responding to pilot actions, that correspond to the aeroplane or set of aeroplanes being simulated;

j) A visual system (night/dusk or day), that provides an out-of-the-cockpit view, providing cross-cockpit viewing for the pilot occupying the left seat of a minimum field of view of **150°** horizontally and **30°** vertically, unless restricted by the type of aeroplane, including adjustable cloud base and visibility; and

k) The visual system need not be collimated. The responses of the visual system and the flight deck instruments to control inputs shall be closely coupled to provide the necessary cues.

Other Equipment

The candidate will supply the following publications and ancillary equipment:

a) Where the test is conducted in an aircraft, an effective means of excluding outside visual reference to simulate instrument flight conditions, while maintaining a safe level of visibility for the examiner or safety pilot.

b) Appropriate and current electronic data bases, and officially recognized enroute, terminal and approach charts for the area where the flight test is to occur and, if the test is conducted in Canada, a current *Canada Flight Supplement*.

Note: In a flight simulation training device, when electronic databases have not yet been updated, the deficiency must be recorded and deferred. The matching charts must be retained until the deficiency has been rectified. Deficiencies must be rectified prior to the annual recertification of the device.

FLIGHT TEST

A candidate who holds a valid Pilot Licence, including a valid flight crew licence or rating issued by a contracting state or a Canadian military flight crew permit, licence or rating, may exercise the privileges of an Instrument Rating for the sole purpose of the candidate's Instrument Rating flight test.

Flight tests are conducted when weather conditions do not present a hazard to the operation of the aircraft, the aircraft is airworthy and the candidate's and the aircraft's documents are valid, as required by the *Canadian Aviation Regulations*. It is the sole responsibility of the examiner to make the final decision as to whether or not all or any portion of the flight test may be conducted.

Whenever practicable, flight tests for the Instrument Rating should be conducted in accordance with a filed IFR flight plan. The direct interaction between the candidate and ATS in an IFR controlled environment makes the test more realistic.

Suitable radio navigation facilities must be available to complete the flight test.

The candidate is expected to utilize an installed autopilot and/or flight management system (FMS) during the instrument flight test to assist in the management of the aircraft. The examiner is expected to test the candidate's knowledge of the systems that are installed and operative during the oral and flight portions of the test. The candidate will be required to demonstrate the use of the autopilot and/or FMS during one of the non-precision approaches. The candidate is expected to demonstrate satisfactory automation management skills. Although autopilots may be used during the flight test, at least one of the approaches will be hand-flown during the flight test for the initial qualification.

All of the required flight test items on the flight test report must be completed and the minimum pass mark for the Instrument Rating flight test of **39** (60%) must be achieved.

Ground flight test items are items **1A, 1B** and **2**.

Air flight test items are those items, tasks or manoeuvres performed directly with the aircraft, including emergency procedures.

Ground flight test items will be assessed before the flight portion of the flight test.

Where the test is conducted in a flight simulation training device, all segments will be conducted, as they would normally be performed in an aeroplane.

REPEATED FLIGHT TEST ITEM

A flight test item or manoeuvre will not be repeated unless one of the following conditions applies:

Discontinuance: Discontinuance of a manoeuvre for valid safety reasons; i.e., a go-around or other procedure necessary to modify the originally planned manoeuvre.

Collision Avoidance: Examiner intervention on the flight controls to avoid another aircraft, which the candidate could not have seen due to position or other factors.

Misunderstood Requests: Legitimate instances when candidates did not understand an examiner's request to perform a specific manoeuvre. A candidate's failure to understand the nature of a specified manoeuvre being requested does not justify repeating an item or manoeuvre.

Other Factors: Any condition under which the examiner was distracted to the point that he or she could not adequately observe the candidate's performance of the manoeuvre (radio calls, traffic, etc.).

Note: These provisions have been made in the interest of fairness and do not mean that instruction, practice or the repeating of an item or manoeuvre already unacceptably demonstrated is permitted during the flight test evaluation process.

INCOMPLETE FLIGHT TEST

If the test is not completed due to valid circumstances beyond the candidate's control, (weather, mechanical, physiological reasons) the subsequent flight test will include the flight test items not completed on the original flight test. The test will be completed within the 30-day validity period of the original recommendation letter in an aircraft of the same instrument-rating group.

The following process will apply:

a) a copy of the Flight Test Report must be presented to the candidate;

b) the flight test may be completed at a later date;

c) the test may be completed by the same or another examiner;

d) the original recommendation must still be valid;

e) flight test items already assessed will not be re-tested, but items already demonstrated during the initial flight and repeated for the purpose of the second flight, may be re-assessed as "1", if the aim of the exercise is not achieved or safety is compromised;

f) the original flight test report may be used to complete the test, or two separate reports may be submitted;

g) the candidate is permitted to complete additional training while awaiting completion of the test.

If the incomplete flight test included one failed air item, the partial flight test for that item may be conducted during the subsequent flight, after the candidate has completed all of the required items, provided:

a) the minimum pass mark has been achieved;

b) no additional item was failed during the subsequent flight; and

c) a letter of recommendation for the partial flight test was received prior to the flight.

FAILURE OF A FLIGHT TEST

Failure to achieve the minimum pass mark or the failure of any flight test item on the flight test report constitutes a failure of the flight test.

The failure of any ground item will require a complete re-test and will preclude the air portion of the flight test. Ground items are not eligible for a partial flight test.

If one air item is failed, the candidate will be eligible for a partial flight test on that item and the failure of a second air item will require a complete re-test.

If not satisfied with the outcome of the flight test, a candidate may wish to file a written complaint regarding the conduct of a flight test or the performance of an examiner with the Transport Canada Regional Office responsible for that examiner. In order to succeed with a complaint, the applicant will have to satisfy Transport Canada that the test was not properly conducted. Mere dissatisfaction with the flight test result is not enough. After due consideration of the individual case, the Regional Superintendent – Flight Training, may authorize a re-test to be conducted, without prejudice (with a clean record in regard to the disputed flight test), by a Civil Aviation Inspector or alternate pilot examiner. Should the complaint not be addressed to the candidate's satisfaction, the procedure to be followed is outlined in *Civil Aviation Issues Reporting System* (CAIRS). The document can be found at: www.tc.gc.ca/eng/civilaviation/opssvs/secretariat-cairs-menu-209.htm.

Where the holder of a valid instrument rating fails a flight test required for the renewal of the rating, the examiner will initiate the suspension process by contacting the Regional Office **no later than the next working day** to report the failure. The Regional Office will then issue a formal *Notice of Suspension* to the candidate.

NOTE: DO NOT STRIKETHROUGH ANY PRIVILEGE ON A CANADIAN AVIATION DOCUMENT.

A pilot licence, including any ratings or endorsements attached to that licence, is a *Canadian Aviation Document* (CAD). The powers to suspend, cancel or refuse to renew a CAD, or any of its additional privileges, are set out in the *Aeronautics Act*.

Where the CAD already includes Instrument Rating privileges, the document holder has the right to appeal the Minister's decision, to suspend, cancel or refuse to renew a CAD, before the Transportation Appeal Tribunal of Canada (TATC). The TATC may be contacted at:

Transportation Appeal Tribunal of Canada,
333 Laurier Avenue West, 12th Floor, Room 1201
Ottawa, ON K1A 0N5
Tel.: 613-990-6906
Fax: 613-990-9153

PARTIAL FLIGHT TEST

Provided the applicable pass mark has been achieved and there is no more than one failed air item, the skill requirement for the issuance of the instrument rating may be met by completing a partial flight test of that item assessed "1".

The candidate will be required to successfully perform the air item assessed as "1" on the previously failed complete flight test. Flight test items not associated with the failed item to be retested, but repeated for the purpose of the second flight, may be re-assessed as "1" (fail) if their aim is not achieved or safety is compromised.

The partial flight test will be completed within 30 days of the original complete flight test in an aircraft of the same instrument-rating group. No more than one partial flight test will be allowed for each complete flight test.

COMPLETE RE-TEST

A complete re-test will be required in the following situations:

a) the required pass mark is not obtained during a complete flight test;

b) the failure of any ground item;

c) the failure of more than one air item during a complete flight test;

d) the failure of a flight test item during a partial flight test;

e) a display of unsafe manoeuvring or dangerous behaviour;

f) a demonstrated pattern of failing to use proper visual scanning techniques is displayed during the visual flight portions of the flight test; or

g) a partial flight test is not completed within 30 days of the original complete flight test.

Note: In the case of a complete re-test, the candidate should not show or submit a copy of the previously failed flight test report to the examiner to avoid a prejudgement of the test.

INSTRUMENT RATING GROUPS

The group of instrument rating issued must correspond to the equipment used for the instrument rating flight test.

Subject to the privileges of the candidate's licence, an instrument rating may be issued valid for:

Group 1 (all aeroplanes) when the flight test was conducted in a multi-engine aeroplane other than a center-thrust multi-engine aeroplane or FSTD;

Group 2 (all center-thrust multi-engine and single engine aeroplanes) when the flight test was conducted in a center-thrust multi-engine aeroplane or FSTD;

Group 3 (all single engine aeroplanes) when the flight test was conducted in a single engine aeroplane or FSTD.

VALIDITY PERIODS

An instrument rating is valid for 24 months from the first day of the month following a flight test subject to the recency requirements of CAR 401.05. If a flight test for renewal of an instrument rating is successfully completed within 90 days prior to its expiry, the renewed rating will be valid to the same date as if the test were conducted immediately prior to the expiry date.

Examiners are authorized to endorse pilot licences with instrument rating privileges. These endorsements are valid for 90 days from the date of the endorsement or the receipt of a new licence label.

PRE-TEST BRIEFING

Flight test examiners are required to brief test candidates on the following details:

a) **The sequence of test items to be covered**. There is no need for the candidate to memorize the sequence, as the examiner will give instructions for each item.

b) **If in doubt -- ask!** Candidates who do not clearly understand what they are being asked to do should feel free to ask. It may be that the examiner wasn't clear in giving instructions.

c) **Who is pilot-in-command?** The pilot-in-command should be the flight test candidate and, if the examiner is a Transport Canada employee, it will always be the flight test candidate. Nevertheless, the examiner reserves the right to exercise all reasonable duty and care to ensure safe flight by intervening or taking control of an aircraft when any action or lack of action by the candidate jeopardizes safety.

d) **Who will do what in the event of an actual emergency?** Discuss.

e) **How to transfer control.** There should never be any doubt as to who is flying the aircraft so proper transfer of control through the words "You have control" and "I have control" is expected during a flight test. A visual check is recommended to verify that the exchange has occurred.

f) **Method of simulating emergencies (aircraft only)** What method will be used? Verbal? Simulated zero thrust setting?

Note 1: For Groups 1 and 2 (multi) ratings, simulated engine failures in aeroplanes will only be carried out in accordance with the manufacturer’s recommendations, or in their absence by reducing power to flight idle. No simulated engine failure in aeroplanes will be initiated below 500 feet AGL. Special care must be exercised to respect engine and airframe limitations when simulating an engine failure. The practice of closing fuel valves, shutting off magneto switches or pulling circuit breakers will not be used during a flight test.

Note 2: Failures of electronic flight or map displays may be simulated in accordance with the training and testing recommendations/handbooks supplied by the equipment manufacturer. The examiner will apply discretion, as to the wisdom of creating a simulated failure, based on the existing flight conditions and his/her familiarity with the specific equipment, in order to ensure safety of flight.

FLIGHT MANAGEMENT

Flight management refers to the effective use of all available resources, including working with such groups as dispatchers, other crewmembers, maintenance personnel, and air traffic controllers. Poor performance of a manoeuvre or task can often be explained by weaknesses in flight management competencies.

Problem Solving and Decision Making

a) Anticipates problems far enough in advance to avoid crisis reaction.

b) Uses effective decision-making process.

c) Makes appropriate inquiries.

d) Prioritizes tasks to gain maximum information input for decisions.

e) Makes effective use of all available resources to make decisions.

f) Considers “downstream” consequences of the decision being considered.

Situational Awareness

a) Actively monitors weather, aircraft systems, instruments, ATC communications.

b) Avoids “tunnel vision” - awareness that factors such as stress can reduce vigilance.

c) Stays “ahead of the aircraft” in preparing for expected or contingency situations.

d) Remains alert to detect subtle changes in the environment.

Communication

a) Provides thorough briefings.

b) Asks for information and advice.

c) Communicates decisions clearly.

d) Asserts one’s position appropriately (multi-crew).

Workload Management

a) Organizes cockpit resources well.

b) Recognizes overload in self.

c) Eliminates distractions during high workload situations.

d) Maintains ability to adapt during high workload situations.

AIRMANSHIP

The candidate's airmanship will be assessed along with other factors in determining the mark awarded for each item. Airmanship elements such as lookout for other aircraft during visual flight, use of checklists, consideration for other aircraft on the ground and in the air, choice of run-up areas and choice of runways as well as departure and approach profiles will be important parts of each item assessed. The candidate will be expected to demonstrate good airmanship and complete accurate checks on a continuing basis.

FLIGHT TEST RESULTS

The *Privacy Act* protects the privacy of individuals with respect to personal information about themselves held by a government institution. A flight test measures the performance of the candidate for the flight test, the examiner conducting the flight test, the instructor who recommended candidate and, through identification of the Flight Training Unit, the performance of the Chief Flight Instructor who is responsible for the training at that unit. All of these are identified on the flight test report.

Personal information may be disclosed in accordance with Section 8(2)(*a*) of the *Privacy Act*, which allows disclosure…" for the purpose for which the information was obtained or compiled by the institution or for a use consistent with that purpose". The purpose for which flight test information is obtained is to ensure the safety of aviation in Canada. The specific purposes are to measure whether the candidate meets the minimum skill standard for the licence or rating, whether the recommending instructor is performing competently as an instructor, whether the examiner is conducting the test in accordance with the standards and whether the Flight Training Unit is performing in accordance with the general conditions of the operator certificate.

In accordance with 8(2)(*a*) of the *Privacy Act*, a copy of the flight test report may be given to the candidate for a flight test and a copy will be retained by the examiner who conducted the flight test. A copy may also be given to the instructor who recommended the candidate for the flight test and to the chief flight instructor responsible for the quality of flight training at the Flight Training Unit where the training was conducted. Specific information about the results of a flight test will not be given by Transport Canada to anyone but the individuals named on the flight test report, except in accordance with the *Privacy Act*.

ASSESSMENT OF FLIGHT TEST PERFORMANCE

The "*Performance Criteria*" section of each flight test item prescribes the marking criteria. These criteria assume no unusual circumstances as well as operation of the aircraft in accordance with published SOPs, owner/operator's checklists, the manufacturer's recommended speeds and configurations in the POH/AFM or other approved data based on the certification standard of the aircraft used for the test.

Throughout the flight test, the candidate 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 written checklist, while accomplishing the elements of an "*Aim*", would be either unsafe or impractical. 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.

Consideration will be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate. To avoid the need to compensate for such situations, tests should be conducted under normal conditions whenever possible.

Whenever practicable, instrument rating flight-test flights should be filed on an IFR flight plan. In this way, the candidate can effectively demonstrate that he or she can interact realistically with the ATC system. If circumstances do not permit a filed IFR flight, the examiner will role-play as ATC, act as a safety pilot, coordinate with the ATC system and issue simulated clearances to the candidate. In either case, the candidate is expected to comply with the clearances whether issued by ATC or the examiner.

ERRORS

Error: means an action or inaction by the flight crew that leads to a variance from operational or flight crew intentions or expectations.

Minor Error

An action or inaction that is inconsequential to the completion of a task, procedure or manoeuvre, even if certain elements of the performance vary from the recommended best practices.

Major Error

An action or inaction that can lead to an undesired aircraft state or a reduced safety margin, if improperly managed; or an error that does not lead to a safety risk, but detracts measurably from the successful achievement of the defined aim of a sequence/item.

Critical Error

An action or inaction that is mismanaged and consequently leads to an undesired aircraft state or compromises safety such as:

- non-compliance with CARS or non-adherence to mandated standard operating procedures (SOP); or
- repeated improper error management or uncorrected and unrecognized threats, which risk putting the aircraft in an undesired state; or
- repeated major errors or the non-performance of certain criteria prescribed in the *Performance Criteria** that are essential to achieving the *Aim** of a test sequence/item.

* defined in the *Flight Test Guide*.

DEVIATIONS

***Deviation*:** means a variance in precision with respect to a specified tolerance published for a manoeuvre within a test item or sequence, which is a result of pilot error or faulty handling of the aircraft.

Minor Deviation

A minor deviation is one that does not exceed a specified tolerance.

Major Deviation

A major deviation is one that exceeds a specified tolerance or repeated minor deviations without achieving stability.

Critical Deviation

A critical deviation is a major deviation that is repeated, excessive or not corrected, such as:

- repeated non-adherence to specified tolerance limits; or
- more than doubling the specified value of a tolerance limit; or
- not identifying and correcting major deviations.

4-POINT MARKING SCALE

When applying the 4-point scale, award the mark that best describes the weakest element(s) applicable to the candidate's performance of the particular test sequence/item demonstrated.

4	Performance is well executed considering existing conditions: • Aircraft handling is smooth and positive with a high level of precision. • Technical skills indicate a thorough knowledge of procedures, aircraft systems, limitations and performance characteristics. • Situational awareness is indicated by continuous anticipation and vigilance. • Flight management skills are exemplary and threats are consistently anticipated, recognized and well managed. • Safety margins are maintained through consistent and effective management of aircraft systems and mandated operational protocols.
3	Performance is observed to include minor errors: • Aircraft handling with appropriate control input includes minor deviations. • Technical skills indicate an adequate knowledge of procedures, aircraft systems, limitations and performance characteristics to successfully complete the task. • Situational awareness is adequately maintained as candidate responds in a timely manner to cues and changes in the flight environment to maintain safety while achieving the aim of the sequence/item. • Flight management skills are effective. Threats are anticipated and errors are recognized and recovered. • Safety margins are maintained through effective use of aircraft systems and mandated operational protocols.
2	Performance is observed to include major errors: • Aircraft handling is performed with major deviations and/or an occasional lack of stability, over/under control or abrupt control input. • Technical skills reveal deficiencies either in depth of knowledge or comprehension of procedures, aircraft systems, limitations and performance characteristics that do not prevent the successful completion of the task. • Situational awareness appears compromised as cues are missed or attended too late or the candidate takes more time than ideal to incorporate cues or changes into the operational plan. • Flight management skills are not consistent. Instrument displays, aircraft warnings or automation serve to avert an undesired aircraft state by prompting or remedying threats and errors that are noticed late. • Safety margins are not compromised, but poorly managed.
1	Performance is observed to include critical errors or the *Aim* of the test sequence/item is not achieved: • Aircraft handling is performed with critical deviations and/or a lack of stability, rough use of controls or control of the aircraft is lost or in doubt. • Technical skills reveal unacceptable levels of depth of knowledge or comprehension of procedures, aircraft systems, limitations and performance characteristics that prevent a successful completion of the task. • Lapses in situational awareness occur due to a lack of appropriate scanning to maintain an accurate mental model of the situation or there is an inability to integrate the information available to develop and maintain an accurate mental model. • Flight management skills are ineffective, indecisive or noncompliant with mandated published procedures and/or corrective countermeasures are not effective or applied. • Safety margins are compromised or clearly reduced.

FLIGHT TEST ITEMS

1. PRE-FLIGHT

1. A. Obtaining Weather Information (Ground item)

Aim

To determine the candidate's ability to retrieve and interpret the aviation weather information necessary for the safe conduct of a flight in accordance with the Instrument Flight Rules.

Description

The candidate will obtain and interpret aviation weather information for the route of flight assigned for the flight test.

Performance Criteria

Assessment will be based on the candidate's ability to retrieve and interpret items such as:

a) weather reports and forecasts (METAR/TAF);

b) graphic area forecast (GFA);

c) surface analysis chart;

d) significant weather prognostic charts (SIGWX);

e) winds and temperatures aloft (FD);

f) icing, turbulence and freezing level charts;

g) SIGMETs;

h) PIREPS; and

i) NOTAMs.

1. B. Flight Planning (Ground Item)

Aim

To determine the candidate's ability to plan a flight utilizing performance charts, weight and balance calculations and other information necessary for the safe conduct of a flight in accordance with Instrument Flight Rules (IFR).

Description

The candidate will plan a flight to an assigned destination. The candidate will prepare a flight log, weight and balance calculations and an IFR flight plan.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) describe the effects of meteorological conditions upon performance characteristics and correctly apply these factors to a specific chart, table, graph or other performance data;

b) demonstrate acceptable knowledge of procedures and planning while applying operational factors affecting aircraft performance;

c) select an appropriate route, altitude and alternate;

d) locate and apply information essential to the flight;

e) integrate information such as weather reports and forecasts; surface analysis charts; significant weather prognostic charts; winds and temperatures aloft; icing, turbulence and freezing level charts, PIREPs, NOTAMs and SIGMETs into the planning of the flight;

f) calculate the estimated time enroute and total fuel requirement based on factors such as power settings, operating altitude or flight level, wind and fuel reserve requirements;

g) determine that the required performance for the planned flight is within the aircraft's capability and operating limitations;

h) make a competent "GO/NO-GO" decision based on available information for the planned flight; and

i) complete a flight plan in a manner that reflects the conditions of the proposed flight;

1. C. Cockpit Checks

Aim

To determine the candidate's ability to complete the cockpit checks necessary for a safe flight under Instrument Flight Rules (IFR), including checks of aircraft systems related to IFR operations.

Description

The candidate will complete, all checks necessary for an IFR flight in accordance with published SOPs, owner's checklists, or the POH/AFM.

Performance Criteria

Assessment will be based upon the candidate's ability to:

a) perform the pre-flight instrument, avionics and navigation equipment cockpit checks;

b) determine that the aircraft is properly equipped and serviceable for safe instrument flight;

c) verify that publications and databases to be used are current;

d) take appropriate action with respect to unsatisfactory conditions identified; and

e) complete checks applicable to anti-icing, de-icing, or ice warning systems.

2. IFR OPERATIONAL KNOWLEDGE (GROUND ITEM)

Note: Acceptable performance of this item is considered mandatory during the ground portion of the flight test, but it will also be evaluated during the air portion.

Aim

To determine that the candidate has sufficient knowledge of IFR procedures to safely conduct the assigned flight under Instrument Flight Rules.

Description

The candidate will demonstrate a practical knowledge of IFR procedures by responding to a brief series of oral questions posed by the examiner that pertain to the planned flight and other questions pertinent to IFR flight in other areas.

Performance Criteria

Assessment will be based on the candidate's ability to demonstrate, prior to departure, sufficient practical knowledge of IFR procedures to ensure a safe flight, such as:

a) take-off weather limits;

b) departure procedures;

c) alternate weather minima;

d) take-off minima – weather below landing minima;

e) icing encounters;

f) landing minima;

g) reduced/low visibility operations (RVOP/LVOP);

h) approach ban (as applicable to the type of operation involved);

i) approach charts.

3. AIR TRAFFIC CONTROL CLEARANCES

Aim

To determine the candidate's ability to obtain, read back and comply with clearances.

Description

Based on actual or simulated clearances, the candidate will obtain, read back and comply with clearances throughout the flight.

Performance Criteria

Assessment will be based upon the candidate's ability to:

a) establish two-way communications with the appropriate controlling agency/ radio station, using proper phraseology;

b) obtain and read back clearances received; and

c) when necessary, request clarification, verification, or change if unable to comply.

4. DEPARTURE

Aim

To determine the candidate's ability to safely depart while complying with departure procedures, as cleared.

Description

The candidate will complete the departure procedures, including an instrument function check, and establish the aeroplane on the enroute course, as cleared in accordance with the Instrument Flight Rules. The candidate will control the aeroplane solely with reference to flight instruments **once in flight and above 400 feet AAE**, unless otherwise specified in a departure procedure.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) select and use the appropriate communications frequencies;

b) select and identify the navigation aids associated with the proposed departure phase;

c) verify that course indications correspond to the intended navigational equipment;

d) perform an instrument check;

e) safely taxi while respecting runway signs and avoiding a runway incursion;

f) accomplish the applicable checklist items and perform recommended procedures;

g) maintain acceptable aeroplane control while respecting mandatory operating limitations and the recommended configurations;

h) intercept, in a timely manner, all tracks, radials, and bearings appropriate to the procedure, route, or ATC clearances and instructions;

i) adhere to departure, noise abatement and transition procedures or ATC instructions;

j) maintain assigned headings (±10 degrees);

k) maintain assigned tracks and bearings (±10 degrees); and

l) climb to and maintain assigned altitudes (±100 feet).

5. ENROUTE

Aim

To determine the candidate's ability to comply with enroute procedures, as cleared.

Description

The candidate will maintain the aeroplane on the enroute course and comply with enroute procedures, as cleared, in accordance with Instrument Flight Rules. The candidate will control the aeroplane solely with reference to flight instruments.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) select and use the appropriate communications frequencies;

b) select and identify the navigation aids associated with the proposed enroute phase;

c) verify that course indications correspond to the intended navigational equipment;

d) perform the aircraft checklist items relative to the phase of flight;

e) intercept, in a timely manner, all tracks, radials, and bearings appropriate to the route or clearance;

f) adhere to enroute procedures;

g) maintain proper aircraft control and flight within operating configurations and limitations;

h) maintain assigned headings (±10 degrees);

i) maintain assigned tracks (±10 degrees); and

j) maintain assigned altitudes (±100 feet).

6. ARRIVAL

Aim

To determine the candidate's ability to comply with arrival procedures, as cleared.

Description

The candidate will complete the arrival procedures, as cleared, in accordance with the Instrument Flight Rules. The candidate will control the aeroplane solely with reference to flight instruments.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) select and use the appropriate communications frequencies;

b) select and identify the navigation aids associated with the proposed arrival phase;

c) perform the aircraft checklist items relative to the phase of flight;

d) intercept, in a timely manner, all tracks, radials, and bearings appropriate to the procedure, route or clearance;

e) adhere to the arrival procedures;

f) maintain proper aircraft control and flight within recommended configurations and operational limitations;

g) maintain assigned headings (±10 degrees);

h) maintain assigned tracks and bearings (±10 degrees); and

i) descend to and maintain assigned altitudes (±100 feet).

7. HOLDING

Aim

To determine the candidate's ability to establish the aeroplane in a holding pattern in accordance with an actual or simulated ATC clearance.

Description

Based on an actual or simulated clearance, the candidate will select a suitable entry procedure, enter and establish the aeroplane in the holding pattern. The candidate will demonstrate adequate knowledge of holding endurance including, but not limited to, fuel on board, fuel available for holding and fuel required to the alternate destination.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) recognize arrival at the holding fix and to initiate entry into the holding pattern;

b) use a suitable entry procedure that assures manoeuvring within the protected airspace;

c) report crossing the fix entering the hold and, if required by ATC, report established in the hold;

d) use the proper timing criteria, where applicable; or

e) comply with leg lengths when a DME distance is specified;

f) anticipate and further assess the effect of wind and apply effective drift and timing correction techniques;

g) maintain the designated track or course (±10 degrees) or within ½ scale deflection of the course deviation indicator, as applicable (Terminal Mode sensitivity if with GPS);

h) maintain the declared airspeed (±10 knots);

i) maintain assigned altitudes (±100 feet); and

j) maintain proper aeroplane control and flight within operating configurations and limitations;

k) provide the examiner with a reasonably accurate estimate of the maximum holding time available based on the IFR flight plan and the fuel on board.

8. APPROACHES

The candidate will perform two (2) instrument approaches. Except where limited by aeroplane equipment or lack of approach facilities, these approaches will be done on different types of facilities. On an initial Instrument Rating flight test, a precision approach with vertical guidance (ILS or LPV) is mandatory. One approach will be demonstrated with a simulated failed engine for Groups 1 and 2 instrument rating qualifications.

Approaches may be flown with vectors from ATC, where available, or by flying a full-procedure approach. If the aeroplane has an approved GPS installation, one of the approaches should be an RNAV(GNSS) approach.

When aerodrome temperatures are 0ºC or colder, altitude corrections will be applied to all minimum altitudes depicted on the approach chart used. In spite of the fact that the CAP – General Pages state "should add", flight test candidates **"will add"** the altitude correction values.

The candidate is allowed only one (1) second attempt for Item 8 - Approaches. Where a major deviation has occurred during the approach **but safety has not been compromised**, the candidate may initiate a missed approach for **one** additional attempt at the approach.

Where safety has been compromised or unacceptable performance has been demonstrated, including but not limited to, descent below a published minimum descent altitude due to pilot error or poor technique, the approach will be evaluated as a "1" despite the initiation of a missed approach by the candidate.

8. VOR, LOC, LOC/BC OR NDB INSTRUMENT APPROACH

Aim

To determine the candidate's ability to safely fly a successful VOR, LOC, LOC/BC or NDB approach.

Description

After transitioning to the approach facility or after receiving vectors from ATC, the candidate will fly the approach depicted on the approach chart to the missed approach point or to a landing. The candidate will control the aeroplane solely with reference to flight instruments. The candidate will make clear to the examiner whether the intent is to fly a straight-in or a circling approach to landing.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) establish two-way communications with ATC using the proper communications phraseology and techniques, as required for the phase of flight or approach segment;

b) comply, in a timely manner, with all clearances, instructions and procedures issued by ATC and advise accordingly if unable to comply;

c) select and comply with the VOR, LOC, LOC/BC or NDB instrument approach procedure to be performed;

d) select, tune, identify, confirm and monitor the operational status of ground and aeroplane navigation equipment to be used for the approach procedure;

e) establish the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions or other meteorological and operating conditions;

f) complete the aircraft check list items appropriate to the phase of flight or approach segment, including engine-out approach and landing checklist, as appropriate;

g) apply necessary adjustment to the published Minimum Descent Altitude (MDA) and visibility criteria for the aircraft approach category when required, because of NOTAMS, inoperative aeroplane and/or ground navigation equipment or inoperative visual aids associated with the landing environment;

h) prior to final approach course, maintain altitudes, as cleared or as declared, (±100 feet) and maintain headings (±10 degrees);

i) on the intermediate and final segments of the final approach course:

   i) maintain VOR, LOC, LOC/BC tracking within ½-scale deflection of the course deviation indicator or within 5 degrees of the specified track, in the case of an NDB approach;

   ii) fly the approach in a relatively stable manner without descending below the applicable minimum altitudes depicted on the approach chart (+as required/ –0 feet);

   iii) descend to and accurately maintain the Minimum Descent Altitude (MDA) and track to the Missed Approach Point (MAP) or to the recommended minimum visibility that would permit safe completion of the visual portion of the approach with a normal rate of descent and minimal manoeuvring.

j) maintain declared approach airspeeds (+10/-5 knots);

k) initiate the missed approach procedure, if the required visual references for the intended runway are not obtained at the MAP; or

l) execute a normal landing from a straight-in or circling approach as required.

8. ILS OR LPV INSTRUMENT APPROACH (PRECISION APPROACH)

Aim

To determine the candidate's ability to safely fly a successful ILS or LPV precision approach.

Description

After transitioning to the approach facility or after receiving vectors from ATC, the candidate will intercept the localizer and glideslope and descend to the decision height (DH) or decision altitude (DA) as specified on the approach chart. The candidate will control the aeroplane solely with reference to flight instruments. The candidate will make clear to the examiner whether the intent is to fly a straight-in or a circling approach to landing.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) establish two-way communications with ATC using the proper communications phraseology and techniques, as required for the phase of flight or approach segment;

b) comply in a timely manner, with all clearances, instructions, and procedures issued by ATC and advise accordingly if unable to comply;

c) select and comply with the ILS or LPV instrument approach procedure to be performed;

d) select, tune, identify and confirm the operational status of ground and aeroplane navigation equipment to be used for the approach procedure, including a RAIM check prior to an LPV approach;

e) establish the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions;

f) complete the check list items appropriate to the phase of flight or approach segment, including engine out approach and landing checklist, as appropriate;

g) apply necessary adjustment to the published DH or DA and visibility criteria for the aeroplane approach category when required, because of NOTAMS, inoperative aeroplane and/or ground navigation equipment or inoperative visual aids associated with the landing environment;

h) prior to final approach course, maintain altitudes, as cleared or as declared, (±100 feet) and maintain headings (±10 degrees);

i) on final approach course, allow no more than ½-scale deflection of the localizer or glideslope indications;

j) during an LPV approach, confirm approach-active mode within 2 nm prior to reaching the Final Approach Waypoint (FAWP) inbound on the final approach course;

k) during an LPV approach, take appropriate action in the event that a RAIM alert is displayed when the aircraft is established on the final approach course;

l) maintain declared approach airspeeds within +10/-5 knots;

m) maintain a stabilized descent to the DH/DA to permit completion of the visual portion of the approach and landing with minimal manoeuvring; and

n) initiate the missed approach procedure, upon reaching the DH/DA, when the required visual references for the intended runway are not obtained; or

o) execute a transition to a landing.

Note 1: LPV means Localizer Performance with Vertical Guidance for RNAV(GNSS) approaches with LPV minima. The aircraft must be equipped with avionics meeting TSO C145a/C146a (WAAS Class 2 or 3). Refer to: AIM - COM 3.16.5.2.3.

Note 2: LPV approaches will be indicated on the flight test report by filling the ILS circle and inserting a note in the Remarks section of the report.

8. RNAV(GNSS) INSTRUMENT APPROACH

Aim

To determine the candidate's ability to safely fly a successful RNAV (GNSS) approach.

Description

The candidate will fly the approach tracks depicted on the approach chart and fly the approach to the MAWP or to a landing. The candidate will control the aeroplane solely with reference to flight instruments. The candidate will make clear to the examiner whether the intent is to fly a straight-in or a circling approach to landing.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) establish two-way communications with ATC using the proper communications phraseology and techniques, as required for the phase of flight or approach segment;

b) comply in a timely manner, with all clearances, instructions, and procedures issued by ATC and advise accordingly if unable to comply;

c) conduct a RAIM check prior to the approach;

d) select and comply with the RNAV instrument approach procedure to be performed;

e) retrieve the RNAV approach from the database and verify the approach waypoints used for the approach procedure;

f) establish the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions or other meteorological and operating conditions;

g) complete the check list items appropriate to the phase of flight or approach segment, including engine-out approach and landing checklist, when applicable;

h) apply necessary adjustment to the published Minimum Descent Altitude (MDA) and visibility criteria for the aeroplane approach category when required, because of NOTAMS, inoperative aircraft equipment and/or inoperative visual aids associated with the landing environment;

i) prior to final approach course, maintain altitudes, as cleared or as declared, (±100 feet) and maintain headings (±10 degrees);

j) take appropriate action in the event that a RAIM alert is displayed when the aircraft is established on the final approach course;

k) on the intermediate and final segments of the final approach course:

   i) maintain GPS track bar within ½ scale deflection;

   ii) fly the approach in a relatively stable manner without descending below the applicable minimum altitudes depicted on the approach chart (+as required/ –0 feet);

   iii) confirm approach active mode within 2 nm prior to reaching the Final Approach Waypoint (FAWP) inbound;

iv) descend to and accurately maintain the Minimum Descent Altitude (MDA) and track to the Missed Approach Waypoint (MAWP) or to the recommended minimum visibility that would permit safe completion of the visual portion of the approach with a normal rate of descent and minimal manoeuvring.

l) maintain the declared approach airspeeds within +10/-5 knots;

m) initiate the missed approach procedure when the required visual references for the intended runway are not obtained at the MAWP; or

n) execute a normal landing from a straight-in or circling approach as required.

9. MISSED APPROACH

Aim

To determine the candidate's ability to safely carry out a missed approach, as published or as modified by ATC.

Description

Following a VOR, LOC, LOC/BC, NDB, RNAV(GNSS), LPV or an ILS approach, the candidate will carry out a missed approach. The candidate will control the aeroplane solely with reference to flight instruments.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) promptly initiate the missed approach at the MAP/MAWP or the DH/DA;

b) report beginning the missed approach procedure;

c) comply with the published missed approach procedure or missed approach instructions from ATC;

d) notify ATC (or the examiner) anytime there is an inability to comply with a clearance, restriction, or climb gradient;

e) perform the check items appropriate to the go-around procedure;

f) request another approach clearance, a clearance to an alternate airport or as directed by the examiner;

g) maintain recommended airspeeds (+10/-5 knots);

h) maintain heading, track or bearing (±10 degrees); and

i) climb to and maintain the published missed approach altitude, or as cleared by ATC or the examiner (±100 feet).

10. TRANSITION TO LANDING

Aim

To determine the candidate's ability to safely carry out a visual descent to landing from an approach MDA or DH/DA or, if required, complete a successful circling approach.

Description

The candidate will carry out a visual descent and landing from an approach MDA or DH/DA without excessive manoeuvring; or, after completion of an instrument approach to circling minima, carry out a circling approach to landing.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) execute a landing from an approach MDA or DH/DA when the required visual references for the intended runway are obtained;

b) take into consideration weather factors such as turbulence, wind shear, wind and visibility;

c) take action respecting NOTAMs, wake turbulence, runway surface, braking conditions and other operational considerations;

d) confirm the direction of traffic and adhere to all restrictions and instructions issued by ATC or the examiner; and

e) where the clear intent is to complete a circling approach:

   i) select and comply with the appropriate circling approach procedure considering the approach category and manoeuvring capabilities of the aeroplane;

   ii) manoeuvre the aeroplane, between the cloud ceiling and the minimum authorized circling approach altitude, by visual references to maintain a flight path that permits a normal landing on a runway not aligned with the final approach course flown;

   iii) use the appropriate procedure and aeroplane configuration for normal or abnormal situations;

   iv) perform the procedure without excessive manoeuvring and without exceeding the normal operating limits of the aeroplane (the angle of bank should not exceed 30°);

   v) accurately maintain the authorized minimum circling approach altitude and maintain the recommended airspeed within +10/-5 knots, until in a position from which a descent to a normal landing can be safely made;

   vi) when a missed approach is dictated during the circling approach, turn in the appropriate direction, and use the correct procedure and aeroplane configuration for the transition to the missed approach; and

   vii) perform all procedures required for the circling approach and aeroplane control in a smooth, positive, and timely manner.

11. EMERGENCY PROCEDURES

Note: The examiner will test the candidate on **three** emergency procedures or system malfunctions. At least one engine failure item (11A) will be tested for the Group 1 and Group 2 Instrument Rating qualifications. Group 3 candidates will be evaluated on items 11B, 11C and 11D only.

11. A. Engine Failure

Aim

To determine the candidate's ability to safely maintain control of the aeroplane and carry out the appropriate engine failure drill after an engine failure on a multi-engine aeroplane during any phase of flight and complete a safe landing with one engine inoperative.

Description

At a safe altitude of 500 feet AGL or higher, the examiner will simulate an engine failure. The candidate will identify the failed engine, complete the engine failure drill in accordance with the emergency checklist, and subsequently execute an approach during one of the Item 8 approaches to a safe landing with the power setting of one engine at flight idle or zero thrust. The candidate will control the aeroplane solely with reference to flight instruments.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) recognize an engine failure, as simulated by the examiner, or the need to shut down an engine in accordance with a scenario presented by the examiner;

b) maintain control of the aeroplane;

c) set the power controls and reduce drag by using control application, in the proper sequence;

d) identify and verify the inoperative engine;

e) establish the best one-engine inoperative airspeed as appropriate to the aeroplane and trim the aeroplane;

f) verify the completion of prescribed check list procedures for restoring power and for securing the inoperative engine, if necessary;

g) establish and maintain the recommended flight attitude and configuration for the best performance for all manoeuvring necessary for the phase of flight;

h) maintain, where applicable, the specified altitude (±100 feet) and desired heading (±10 degrees); and

i) monitor all functions of the operating engine, make necessary adjustments and adhere to the engine inoperative operating limitations for the aeroplane.

11. B. C. D. System Malfunctions and Emergency Procedures

Aim

To determine the candidate's ability to complete recommended checks and procedures in accordance with SOP's, the POH, AFM, or other applicable publications in the event of system malfunctions or other emergency situations.

Description

The candidate will complete the recommended checks and procedures based on simulated malfunctions or emergency scenarios impacting the continuation of safe flight in IFR/IMC that are presented by the examiner.

These situations will be applicable to the aeroplane being used for the test. These items may be tested on the ground or in flight, however at least one item should be tested in flight. Nevertheless, the examiner will determine if aeroplane performance, weather conditions and other factors permit their safe conduct in flight.

The following lists some of the system malfunctions that may be assessed:

a) radio and navigation equipment;

b) electrical system;

c) vacuum system;

d) anti-ice and de-icing systems;

e) any other installed system required for IFR flight.

Performance Criteria

Assessment will be based on the candidate's ability to:

a) promptly identify the malfunction;

b) perform applicable memory items, as appropriate;

c) promptly apply correct checks and procedures in accordance with the applicable checklist, POH/AFM, or other approved data;

d) consider any restrictions or limitations to the operation of a system(s) and apply appropriate procedures in order to continue the flight; and

e) develop a reasonable course of action for the remainder of the flight.

RECOMMENDATION FOR INITIAL FLIGHT TEST

INSTRUMENT RATING – GROUPS 1, 2 AND 3

Name of Candidate (Print)	Licence Number
Name of Flight Training Unit	Flight Training Unit ID
Flight Experience Total Instrument Time: Dual Instrument Flight Time with the holder of a Flight instructor Rating: Instrument Ground Time: Hours in Aeroplane Category:	**Cross-Country Experience** Total Cross Country Flight Time – Hours (PIC): Dual Cross-Country IFR Flight - Miles: Cross Country Time in Aeroplane Category:

I, the undersigned, certify that the above named candidate meets the minimum experience requirements of Section 421.14 of the *Personnel Licensing and Training Standards Respecting Flight Training*.

I consider the candidate to have reached a sufficient level of competency to complete the flight test required for the issuance of an Instrument Rating.

I further certify that I am qualified in accordance with Subsection 425.21(9) and the privileges of my pilot licence to make this recommendation.

Name of the Qualified Person Recommending the Test (Print)		Licence Number
Signature	Date	Flight Training Unit

RECOMMENDATION FOR PARTIAL FLIGHT TEST

INSTRUMENT RATING – GROUPS 1, 2 AND 3

Name of Candidate (Print)	Licence Number
Flight Training Unit Flight Training Unit ID	Additional Flight Experience in Review Dual

I have conducted a review of the test item _____ and have completed additional training with this candidate.

I consider the candidate to have reached a sufficient level of competency to successfully complete the flight test for the issuance of an Instrument Rating.

I further certify that I am qualified in accordance with Subsection 425.21(9) and the privileges of my pilot licence to make this recommendation.

Name of the Qualified Person Recommending the Test (Print)		Licence Number
Signature	Date	Flight Training Unit