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Pilot Examiner Manual

First Edition

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FOREWORD

This manual contains the standards, policies, procedures and guidelines that pertain to the Pilot Examiner (PE) program and is published for use by Transport Canada Inspectors and Pilot Examiners.

Pilot Examiners are approved by the General Aviation - Regional Superintendents – Flight Training (Operations), and authorized to conduct flight tests on behalf of the Minister.

When performing their duties, Pilot Examiners are acting as delegates of the Minister according to subsection 4.3(1) of the *Aeronautics Act* thus it is imperative that the policies and procedures specified in this manual be followed.

Transport Canada Inspectors will also abide by the policies and procedures specified for the approval and monitoring of PEs as well as the conduct of flight tests.



Manzur Huq

Director

General Aviation

Ce manuel est disponible en français

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RECORD OF AMENDMENTS

Amendment Number	Effective Date	Pages Affected	Date Entered	Initials
New (1st Edition)	April 2005	All		
Revision 1				

Revisions to this manual are indicated using a vertical solid bar adjacent to a paragraph to reflect a modification.

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I N T R O D U C T I O N

The Pilot Examiner (PE) program is a service responding to the need to provide prompt, reliable, and objective flight testing for the issue of licences, permits and ratings

The overall administration of the PE Program, including policy and standardization, is the responsibility of Transport Canada - Headquarters - General Aviation. Final selection, on-site training, accreditation and monitoring of Pilot Examiners are the responsibility of the Transport Canada Regional Offices - General Aviation Branch.

An essential element of the PE Program is communication. Standardization workshops and routine contact between Pilot Examiners and Flight Instructors combined with direct communication with Transport Canada Regional and Headquarters Inspectors are essential for standardization and continuous improvement in flight training and testing in Canada.

Pilot Examiner authority is granted to individuals in accordance with the terms, conditions and guidelines of this manual.

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Definitions

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

Examiner means a General Aviation Inspector or a Pilot Examiner, as applicable.

Regional Superintendent - Flight Training may be substituted by the title of the person responsible for examiner accreditation and implementation of the Pilot Examiner Program at the regional level.

Conduct means to take an active role in all phases of a flight test, including pre-flight preparation, the briefing, the control and pace of the various sequences, the assessment of the flight test candidate's performance, the debriefing, and completion of required documents including certification of the candidate's licenses.

Flight test means an event having a series of tasks, exercises and manoeuvres performed by a candidate for the purpose of determining if that person meets the minimum skill requirements for the issuance of the permit, licence or rating sought.

FTAE means Flight Training and Aviation Education database that is maintained by Transport Canada.

Issuing Authority means the Regional Manager, General Aviation or the Regional Superintendent, as appropriate.

An **accreditation** is an official authorization to conduct flight tests that is conditional upon the qualification of the person and the continued need for assistance to carry out the powers, duties and functions of the Minister.

Acronyms

AFM - Aircraft Flight Manual.

AIP – Aeronautical Information Publication

ATC - Air Traffic Control.

ATPL - Airline Transport Pilot Licence - (H) means Helicopter category.

POH – Pilot Operating Handbook

CAR - Canadian Aviation Regulation.

RPP – Pilot Permit – Recreational - Aeroplane

PPL Private Pilot Licence, (H) means helicopter category

CPL - Commercial Pilot Licence.

PE – Pilot Examiner

OPI - Office of Primary Interest

RMGA - Regional Manager General Aviation

PLPM - Personnel Licensing Procedures Manual

TC - Transport Canada

EXAMINER ACCREDITATION AND RESPONSIBILITIES

Pilot Examiner Program

The Designated Flight Test Examiner (DFTE) program was introduced in June 1974, to provide prompt flight test service to the industry. The details of the program were established following discussions with the Royal Canadian Flying Clubs Association and the Air Transport Association of Canada. DFTEs were selected, trained, and appointed to conduct flight tests for private and commercial pilot licences and multi-engine class ratings.

Before the DFTE program was established, flying clubs could conduct the flight test for private pilot candidates at schools offering approved courses. Even earlier, the privilege of testing private pilot candidates was given to all Class 1 and 2 flight instructors. Mounting concerns about the accident rate among private pilots resulted in this privilege being removed in 1969.

Following discussions with Aerobatics Canada, the authority to conduct flight tests for some aerobatic instructor ratings was delegated to industry in 1985, subject to the same procedures for appointment and monitoring required of other authorities. Delegation of instrument rating flight tests was initiated in 1992. Delegation of flight instructor renewal flight tests was initiated in 2003.

The term Designated Flight Test Examiner was replaced with the term “Pilot Examiner” (PE) in November 2004. In addition to more accurately describing the duties of the examiner, the term pilot examiner is more widely recognized in other countries. More than 6,000 flight tests each year are performed by pilot examiners, making this group of industry professionals an essential part of a safe aviation system.

Pilot Examiner Accreditation Criteria

The accreditation of a pilot examiner is an official authorization to conduct flight tests on behalf of the Minister of Transport pursuant to Part 1, Section 4.3(1) of the *Aeronautics Act*. This accreditation is given to qualified individuals on completion of the training required to conduct a particular type of flight test. It is, thereafter, the examiner’s obligation to continue to meet the requirements of the accreditation.

Accreditations are subject to 6.71 (1) of the *Aeronautics Act*, which states in part...“The Minister may refuse to issue or amend a Canadian Aviation Document (CAD), on the grounds that:

- (a) the applicant is incompetent;
- (b) the applicant...”in respect of which the application is made does not meet the qualifications or fulfill the conditions necessary for the issuance or amendment of the document”; or
- (c) the Minister considers that the public interest – which may include the aviation record of the applicant... – “warrants the refusal.”

A suspension or a refusal to issue may be appealed before the Transportation Appeal Tribunal of Canada.

Need

Both the initial accreditation and the renewal of an accreditation are based on **need** at a particular location for delivery of a flight testing service. Need is determined by the:

- (a) number of flight tests expected to be conducted annually;
- (b) type of flight test (recreational, private, commercial, multi-engine, instrument, flight instructor);
- (c) number and proximity of other examiners who can provide the service.

The initial accreditation and the renewal of an accreditation are justified when the potential exists for the examiner to annually complete the following number of flight tests, per authority:

- (a) 20 Recreational/Private Pilot flight tests;
- (b) 10 Commercial Pilot flight tests;
- (c) 10 Multi-Engine flight tests;
- (d) 10 Instrument Rating Flight tests;
- (e) 10 Flight Instructor Rating renewals

Once need has been established, selection of a pilot-examiner will be based on the availability of a suitably qualified person. Once the pilot-examiner has been selected and trained, the Regional Superintendent will issue a Letter of Accreditation.

Requirements for Accreditation

General Requirements:

- (a) have a minimum age of 21 years;
- (b) hold a valid Commercial Pilot Licence or Airline Transport Pilot Licence;
- (c) hold the appropriate Flight Instructor Rating, when such a rating is required, pursuant to sections 405.21 and 405.22;
- (d) have a satisfactory training record where at least 80% of the candidates recommended by the pilot-examiner, for a flight test for which an accreditation is sought, have succeeded on the first attempt;
- (e) have a good record as a pilot and flight instructor in regard to accidents, incidents and violations;
- (f) have a reputation for integrity and dependability in the aviation industry and the community;
- (g) have a history of cooperation with Transport Canada; and
- (h) have a written recommendation from a Flight Training Inspector who has been personally acquainted with the candidate's work, standards and integrity for at least one year.

Knowledge:

- (a) complete a training assignment; and
- (b) attend an examiner workshop prior to or as soon as practicable following accreditation, and thereafter every 2 years.

Skill

Successful completion of standardization training, as outlined in the Pilot Examiner Manual (TP 14277), in order to ensure competency in exercising the privileges of the accreditation.

Prerequisites

RPP(A), PPL(A), CPL(A), PPL(H) and CPL(H):

- (a) hold a Class 1 or Class 2 Flight Instructor Rating; and
- (b) have at least 1,000 hours of flight instructor experience.

Multi-Engine Rating - Aeroplane:

- (a) have at least 1,500 hours pilot-in-command;
- (b) have at least 500 hours pilot-in-command in multi-engine aeroplanes, of which not more than 100 hours are on centre-line thrust aeroplanes; and

Instrument Rating - Aeroplanes:

- (a) hold a Class 1 or Class 2 Flight Instructor Rating;
- (b) hold the minimum licence and experience qualifications specified in CAR 425.21(9); and
- (c) have at least 2,000 hours pilot-in-command of which 500 hours must be in multi-engine aeroplanes;
- (d) have at least 500 hours instrument flight time;
- (e) have conducted at least 300 hours flight instruction toward the issuance of an Instrument Rating;
- (f) have successfully completed a biennial renewal of the Instrument Rating with a Transport Canada Inspector or a Type A - Approved Check Pilot; and

or alternatively,

- (a) hold an Airline Transport Pilot Licence;
- (b) have at least 3,000 hours flight time;
- (c) have at least 1,500 hours pilot-in-command of which at least 500 hours must be in multi-engine aeroplanes;
- (d) have at least 500 hours instrument flight time; and
- (e) have successfully completed a biennial renewal of the Instrument Rating with a Transport Canada Inspector or a Type A - Approved Check Pilot.

Instrument Rating - Helicopters:

- (a) hold an Airline Transport Pilot Licence - Helicopter
- (b) have at least 3,000 hours flight time;
- (c) have at least 1,500 hours pilot-in-command of which 500 hours must be in helicopters;
- (d) have at least 200 hours instrument flight time; and
- (e) have successfully completed a biennial renewal of the Instrument Rating with a Transport Canada Inspector or Type A - Approved Check Pilot.

Flight Instructor Ratings

- (a) hold an Airline Transport Pilot Licence or a Commercial Pilot Licence - Helicopter;
- (b) hold a Class 1 Flight Instructor Rating;
- (c) have at least 3000 hours total flight time;
- (d) have at least 2000 hours of flight instructor experience, including at least 300 hours flight instruction experience towards the flight instructor rating;
- (e) have a record of at least 10 recommendations of candidates for a Flight Instructor Rating;
- (f) have a Designated Flight Test Examiner or Pilot Examiner record of testing in accordance with the flight test guide and not requiring repeated remediation.

Accreditation Process

Once need has been established, selection of a PE, other than for Flight Instructor Rating renewals, will be based on the availability of a suitably qualified person. An examiner candidate will require:

- (a) a written recommendation from a Flight Training Inspector who has been personally acquainted with the candidate's work, standards and integrity for at least one year;
- (b) successful completion of a pre-training assignment;
- (c) successful completion of standardization training conducted by a GA Inspector.
- (d) attendance at a Transport Canada Pilot Examiner Workshop prior to or as soon as practicable following accreditation.

The Regional Superintendent – Flight Training will issue a Letter of Accreditation stating the terms and conditions of the accreditation.

Accreditation Process – Flight Instructor Rating renewals

Interested persons will complete an application form “Application to Qualify for the Pilot Examiner Pool - Flight Instructor Rating” posted on the Transport Canada Internet website at:

<http://www.tc.gc.ca/forms/Search.asp?FormNumber=26-0652>

The completed application is forwarded to Transport Canada, Flight Training – AARRE, 6th Floor, 330 Sparks Street, Ottawa, Ontario K1A 0N8 in a sealed envelope noted “Application to the Pilot Examiner Pool”. A “Confirmation of Receipt of Application” form letter will be sent to all applicants.

All applications are evaluated on a case-by-case basis, categorized and scored in accordance with established rating criteria. Applicants meeting the requirements are entered in a pool of potential Pilot Examiners for a period of two (2) years. Applications will be returned to unqualified applicants.

When a Regional Office determines a need for a particular area or location, the names of the top three (3) candidates in the pool, available for the area, will be forwarded for consideration. The total scores for the candidates plus the national average score will be provided to the Region.

Upon selection of the desired candidate, the Regional Office will send public notices “Request for Comment” (form letter) to the FTUs (including the candidate's associated FTU) that could be affected by a new accreditation. The requests will require a written response within 30 calendar days of the mailing for consideration. A written recommendation from a GA Inspector who has been personally acquainted with the candidate's work, standards and integrity for at least one year is required to complete the selection process.

After consideration of information received, the Regional Superintendent – Flight Training may authorize the training of the successful examiner candidate.

Upon successful completion of the required training, the Regional Superintendent – Flight Training will issue a Letter of Accreditation to the examiner candidate stating the terms and conditions of the accreditation.

Pilot Examiner Training

Pre Training Assignment

The pre-training assignment includes, but is not limited to the following references, as appropriate to the aircraft category:

RPP(A), PPL(A) & (H), CPL(A) & (H) and Multi-Engine Class Rating(A):

Pilot Examiner Manual (TP14277)
Canadian Aviation Regulations - Part IV and Part VI
Flight Test Guide - Recreational Pilot Permit - Aeroplane (TP12475)
Flight Test Guide - Private Pilot Licence -Aeroplane (TP13723)
Flight Test Guide - Commercial Pilot Licence – Aeroplane (TP13462); or
Flight Test Guide –Private and Commercial Pilot Licence - Helicopter (TP3077)
Flight Test Guide - Multi- Engine Class Rating (TP219)
Flight Instructor Guide (TP975); or
Flight Instructor Guide – Helicopter (TP4818)

Instrument Rating

Pilot Examiner Manual (TP14277)
Canadian Aviation Regulations - Parts IV and VI
Flight Test Guide - Instrument Rating (TP9939)
Canada Air Pilot – General
Canada Flight Supplement
Instrument Procedures Manual (TP2076)
AIP Canada

Flight Instructor Rating

Pilot Examiner Manual (TP14277)
Canadian Aviation Regulations - Parts IV and VI
Flight Test Guide-Recreational Pilot Permit - Aeroplane (TP12475)
Flight Test Guide Private Pilot Licence - Aeroplane (TP13723)
Flight Test Guide Commercial Pilot Licence – Aeroplane (TP13462); or
Flight Test Guide –Private and Commercial Pilot Licence - Helicopter (TP3077)
Flight Test Guide - Multi- Engine Class Rating (TP219)
Flight Test Standard – Flight Instructor Rating (TP5537)
Flight Instructor Guide (TP975); or
Flight Instructor Guide – Helicopter (TP4818); and
Flight Training Manual (T52-14/1994); or
Helicopter Flight Training Manual (TP9982)

Briefing

The candidate will schedule an appointment with a GA Inspector to review the pre-training assignment and receive a thorough and structured briefing on the conduct of flight tests.

The briefing will include, without being limited to, the following subjects:

- (a) Examiner's Roles and Responsibilities
- (b) Principles of Evaluation
- (c) Pre-flight test Administration

- (d) Flight test ground portion activities
- (e) Flight test flight portion activities
- (f) Post-flight activities
- (g) Flight Test Report completion and distribution
- (h) Other applicable regional concerns

Practical Training

General

The information noted below outlines general training requirements for the practical portion of the training. The GA inspector conducting the training, in consultation with the Regional Superintendent - Flight Training, may modify these requirements. When the GA inspector is satisfied that the pilot examiner trainee meets an acceptable level of flight-testing performance, a recommendation will be made to the Regional Superintendent – Flight Training that the pilot examiner candidate be accredited with the applicable pilot examiner accreditation.

The practical training of an examiner trainee is done in two phases:

Phase One - The trainee observes a flight test for the authority being sought conducted by a qualified inspector.

Phase Two - The trainee conducts a flight test for the authority being sought while being monitored by a qualified inspector

These flight tests may be real or, when necessary, simulated.

The pilot examiner trainee conducts the monitored flight test as the examiner. The applicable flight test guides will be used to conduct the flight test and assess the performance of the flight test candidate. At the end of the test, the trainee will debrief the inspector without the flight test candidate present. If both agree on the outcome of the flight test, the trainee will debrief the flight test candidate on their performance during the test, noting strengths, weaknesses and adherence to the qualification standards. Should the inspector not agree with the trainee's assessment, the inspector will debrief the candidate.

NOTE: Monitored flight tests for the purpose of examiner training should be conducted with the consent of the flight test candidate and, if applicable, the Flight Training Unit.

Role-playing

Although it is desirable to observe and monitor flight tests under actual conditions, suitable flight test candidates or aircraft with more than two seats are not always available. Inspectors may then role-play the part of the candidate, using their experience to develop realistic scenarios during the ground and flight portions of the flight test.

Scenarios should include exercises in which performance is simulated to be below standard, at the basic standard, and above standard:

- (a) above standard performance throughout a test;
- (b) basic standard performance with errors during a test; and
- (c) below standard performance.

These practice flight tests may be conducted in:

- (a) an approved Level 4 or higher Flight Training Device (FTD) having a functional visual system;
- (b) a level A or higher flight simulator; or
- (c) an aircraft.

Letter of Accreditation

General

The Regional Superintendent – Flight Training may issue a Letter of Accreditation following the successful completion of a pilot examiner’s training. The letter is an agreement between the Minister and the Pilot Examiner that includes a written statement indicating:

- (a) that the person understands that accreditation as a Pilot Examiner may be cancelled or suspended for breach of a condition of issuance, administrative reason or for any other reason set out in sections 6.9 to 7.1 of the *Aeronautics Act* or in the *Canadian Aviation Regulations*;
- (b) that the person understands that a valid licence and required rating must be held to exercise the privileges of the accreditation;
- (c) that the person understands, accepts and will carry out the following privileges, duties and functions of the Minister to:
 - (i) ensure that a flight test candidate meets the prerequisites pursuant to CAR section 401.14 *Flight Test Prerequisites* as described in the applicable *Flight Test Guide*;
 - (ii) ensure that aircraft used for flight tests for the applicable permits, licences or ratings meet the requirements of:
 - (A) CAR 602.07 – *Aircraft Operating Limitations* – operated in accordance with the limitations set out in the AFM/POH, and other approved data with regard to all limitations for the operating envelope and the type of flight (Day/Night/VFR/IFR), appropriate to the licence or rating sought;
 - (B) CAR 605.06 - *Aircraft Equipment Standards and Serviceability* – the aircraft and required equipment meet the applicable standards of airworthiness, are serviceable and, where required by operational circumstances, functioning;
 - (C) CAR 425.23 - *Training Aircraft Requirements* – must be at least a two-place aircraft with normal dual functioning flight controls and having the minimum required functioning instrumentation and radio navigational equipment required for the type of flight authorized by the privileges of the licence or rating for which the flight test is intended.
 - (iii) 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;
 - (iv) assess a flight test candidate’s performance in accordance with the standards expressed in the applicable *Flight Test Guide*;
 - (v) conduct flight tests in accordance with the applicable techniques and procedures outlined in the *Pilot Examiner Manual* (TP14277);
 - (vi) work harmoniously with the public and avoid any action that may reflect discredit on Transport Canada; and
 - (vii) complete all administrative requirements as outlined in the *Pilot Examiner Manual*.
- (d) the authority to initiate suspension of rating privileges for which a flight test candidate failed to meet the qualification requirements of the *Personnel Licensing Standards*;
- (e) the geographical area within the Region where the pilot examiner is authorized to provide flight testing services;
- (f) any other appropriate conditions of issuance; and
- (g) the expiry date of the accreditation.

NOTE: The conditions expressed in (a) through (g) will be included in the Letter of Accreditation. The letter will be issued and duly signed by the Regional Superintendent and the Pilot Examiner designee. Once signed, both parties will retain copies.

Area of Accreditation

The Letter of Accreditation will specify the Transport Canada Region within which an examiner is authorized to conduct flight tests. The letter may specify boundaries or radii from the examiner's current address or from economic centres within a Region, and/or limit the accreditation to the period of employment with a specified FTU Operator.

Flight tests may be conducted on qualified candidates regardless of their address or where they received training.

The conduct of a flight test in another Region must have the prior approval of the Regional Superintendent – Flight Training for that other Region.

The conduct of a flight test outside of Canada or outside the constraint boundaries specified in the Letter of Accreditation must have the prior approval of the Regional Superintendent – Flight Training for the Region that issued the Letter of Accreditation.

Duration of Accreditation

All initial Pilot Examiner accreditations will expire at 23:59 on the first day of the thirteenth (13th) month following the date of accreditation.

All accreditation renewals will expire at 23:59 on the first day of the twenty-fifth (25th) month following the date of renewal.

Renewal of Accreditation

It is the responsibility of the Pilot Examiner to request renewal of an accreditation before it has expired. The Transport Canada Regional Office, or nearest TCC, should be advised in writing of the Pilot Examiner's intention to renew, at least 90 days prior to the expiry date of the accreditation, . If a request is not received, Transport Canada will assume that the examiner does not wish to renew the accreditation.

The examiner must meet the requirements for initial accreditation when an accreditation has been invalid for more than 24 months.

All examiners requesting renewals of accreditation will be subject to the following requirements:

- (a) a continuing need at a particular location;
- (b) continuing to meet the requirements for initial accreditation;
- (c) having honoured the conditions of issuance of accreditation during the previous period of accreditation;
- (d) having conducted flight tests in accordance with the terms and conditions stipulated in the Letter of Accreditation;
- (e) having successfully completed a Pilot Examiner Workshop at least every two years;
- (f) additionally, for examiners authorized to conduct Flight Instructor Rating flight tests, having successfully completed a standardisation workshop for the conduct of those tests;
- (g) having successfully completed, during the year not participating in a Pilot Examiner Workshop, a recurrent monitoring with a Transport Canada Inspector, for one group of authorities held.
Authorities may be grouped as follows:
 - (i) Recreational Pilot Permit – Aeroplane, Private Pilot Licence, Commercial Pilot Licence
 - (ii) Multi-engine Class Rating (A), Instrument Rating
 - (iii) Class 4, 3 and 2 Flight Instructor Rating renewals

Cancellation, Suspension or Refusal to Renew

Pursuant to 7.1(1) of the *Act*, the Regional Manager – General Aviation may cancel an examiner’s accreditation on the basis of any of the following:

- (a) a record of conviction of an offence punishable on summary conviction under 7.3 of the *Aeronautics Act* or the *Canadian Aviation Regulations*; or
- (b) evidence of malpractice or fraudulent use of the designation.

Pursuant to 7.1(1) of the *Act*, the Regional Manager - General Aviation may suspend or refuse to renew an examiner’s accreditation on the basis of any of the following:

- (a) upon the written request of the examiner;
- (b) when there is no longer a need for the pilot examiner’s service;
- (c) a record of violation of the *Canadian Aviation Regulations* resulting in one or both of the following penalties:
 - (i) an administrative monetary penalty assessed in accordance with sections 7.6 to 8.2 of the *Aeronautics Act*, where there has been a violation of a designated provision; or
 - (ii) the suspension of a *Canadian Aviation Document* in accordance with section 6.9 of the *Act*, in respect of any contravention of a provision of Part 1 of the *Act*.
- (d) the need to investigate the circumstances following an incident or accident in which the pilot examiner is implicated;
- (e) the pilot examiner no longer complies with the conditions of accreditation regarding location within a Transport Canada Region or affiliation with a flight training unit, as applicable;
- (f) failure to attend required Pilot Examiner Workshops;
- (g) failure to maintain a Class 1 or Class 2 Flight Instructor Rating in the case of a Pilot Examiner with a RPP(A), PPL, CPL or Flight Instructor Rating accreditation, as applicable;
- (h) failure to maintain an Instrument Rating in the case of a Pilot Examiner with Instrument Rating accreditation.
- (i) unacceptable performance in any phase of pilot examiner duties or responsibilities, including the inability to accept or carry out the supervising Regional Office’s instructions;
- (j) the need for repeated direction in the proper conduct and administration of flight tests;
- (k) failure to conduct flight tests in accordance with the instructions, techniques and procedures set forth in the applicable flight test guide(s) or the *Pilot Examiner Manual* (TP 14277);
- (l) failure to comply with the terms and conditions set forth and agreed upon in the Letter of Accreditation; or
- (m) for any reason the Regional Manager considers appropriate and in the public interest.

Reinstatement of Accreditation:

The Regional Manager - General Aviation may consider the reinstatement of suspended accreditation at any time deemed appropriate where it is in the interest of need and service to the public. The criteria for initial accreditation will have to be met.

Request for Review

A “Letter of Accreditation” as a Pilot Examiner is a *Canadian Aviation Document* (CAD). The powers to suspend, cancel or refuse to renew a CAD are set out in the *Aeronautics Act*, as amended.

The four distinct grounds for the powers are as follows:

- (a) suspend or cancel for contravention of any provision in Part 1 of the *Act* or the regulations made under the *Act* [e.g. the *Canadian Aviation Regulations* (CARs)];
- (b) suspend on the grounds that an immediate threat to aviation safety exists or is likely to occur;
- (c) suspend, cancel or refuse to renew on the grounds of:
 - (i) incompetence;
 - (ii) ceasing to meet the qualifications or to fulfill the conditions of issuance of the document; or
 - (iii) public interest reasons;
- (d) suspend or refuse to renew for failure to pay monetary penalties for which the Tribunal has issued a certificate of non-payment.

The document holder has the right to request a review of the Minister’s decisions, to suspend, cancel, or refuse to issue or renew a CAD, by 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

Pilot Examiner Responsibilities

Role

A Pilot Examiner is an experienced professional who is trained to assess pilot performance against a national standard and who ensures that all persons seeking a pilot licence or rating, for which a flight test is required, meet the skill requirements.

Prompt Service

Pilot Examiners are appointed to provide a prompt flight test service to any candidate who meets the experience requirements for that test and who has been recommended for a flight test by a qualified person, regardless where the training took place.

An examiner is expected to honour appointments unless circumstances warrant cancellation or postponement. It is the examiner's responsibility to reschedule a flight test if the postponement is at the examiner's request. If an examiner cancels a flight test without rescheduling, the examiner should recommend another examiner or instruct the candidate to contact the closest TCC or the Regional Office. The TCC/Regional Office should provide the names of other examiners, or may arrange to conduct the flight test at the candidate's request.

Flight Test Service

Pilot Examiners are professionals who can be counted on to be on time and to be well organized and businesslike in their conduct of flight tests. They are polite and respectful toward flight test candidates.

The examiner must conduct the oral portion of the flight test in a private area free from distractions. The examiner must give the candidate undivided attention during the test and ensure that any discussion of test results with the candidate is in private unless, by mutual agreement, a person other than the candidate is present, e.g. the recommending flight instructor.

Prompt Forwarding of Flight Test Reports

Original flight test reports (*pass or fail*) must be forwarded to the Transport Canada Regional Office or TCC within 5 working days after the flight test. A duplicate copy is to be retained in a file maintained by the Pilot Examiner. The Pilot Examiner's file copy is to be kept for not less than 24 months after the flight test date. This file is subject to review by Transport Canada – GA Inspectors and is to be made available upon reasonable notice.

In the event of a failed flight test, the Pilot Examiner will give the candidate a copy of the completed flight test report. Flight tests that are converted into a dual flight because of unsatisfactory performance are to be considered a failed flight test. The practice of holding the report of a failed flight test until a subsequent flight test has been successfully completed is unacceptable.

Standardization

Examiners must conduct all flight tests in accordance with the applicable Flight Test Guide. An examiner must not allow personal prejudices to interfere with the objective evaluation of a candidate's performance.

Pilot Examiners are required to complete an open-book assignment and attend a pilot examiner standardization workshop every two (2) years. A record of successful completion of the workshop will be entered in the examiner's file.

Recurrent Monitoring

The objective of recurrent monitoring is to standardize the conduct of flight tests, the application of the standards and the method of evaluating a candidate's performance.

Pilot Examiners are required to contact a GA Inspector for the completion of a monitoring flight every two years. The pilot examiner should arrange, with an inspector and a candidate, a mutually convenient time for monitoring a flight. Should the pilot examiner not be able to make the necessary arrangements, an inspector will arrange a monitoring event.

During the monitoring event, the inspector will brief both of them on how the monitor will be conducted, he will then monitor the ground portion of the flight test, and if a suitable aircraft is available, will monitor the in-flight portion of the test.

Pilot Examiners may be monitored in the following ways:

- (a) simulation of a flight test in which the inspector plays the role of a flight test candidate to assess the examiner's proficiency and ability to evaluate. Where this method is used, a sampling of flight test items appropriate to the authorities held will be selected based on the following criteria:
 - (i) flight test items that have been identified through flight test data analysis as items requiring review because of:
 - (A) passing rates considerably above or below the national averages;
 - (B) remarks not supporting the evaluation;
 - (C) the presence of weak instructional technique as revealed through analysis of student performance during flight tests that were recommended by the examiner;
 - (ii) any new flight test item as described in flight test guides, as amended from time to time; or
 - (iii) areas that have generated disputes or appeals brought to the Minister's attention.

Note: Under normal circumstances, the airborne portion, when role-playing, should not exceed one hour of flight time.

- (b) observation of a complete flight test;
- (c) where a suitable aircraft is not available, observation of the ground portion of a complete flight test.

Note: The ground portion includes evaluation of the pre-test organization, meeting the candidate, the pre-test briefing, exercises/items tested on the ground, and post-flight activities. When this method is used, the next monitoring should include an evaluation of in-flight testing.

Pilot Examiners holding an Instrument Rating accreditation will have their Instrument Rating renewal rides conducted by a Transport Canada Inspector or a Type A - Approved Check Pilot.

Pilot Examiners are encouraged to contact their Regional Office - Flight Training at least once a year to review their Flight Test Records.

Note 1: A Level 5 or higher FTD or a flight simulator may be used to assess the examiner's evaluation of IFR procedures or tasks.

Note 2: Participation at a recurrent examiner workshop does not preclude the Regional Office from scheduling a monitoring check flight at any time.

Special Monitoring

Special monitoring of an examiner may be scheduled where reasonable cause is indicated. The Regional Office may take appropriate action, and document that action, if an examiner:

- (a) demonstrates a pattern of not testing in accordance with the Flight Test Guide(s), which may include, but is not limited to:
 - (i) passing rates consistently well above or below the national averages;
 - (ii) flight test times that are consistently much shorter or longer than the national averages;
 - (iii) flight test remarks that do not support the mark awarded, or
 - (iv) being the subject of a substantiated public complaint regarding their competence or the conduct of a flight test.
- (b) is involved in an accident, incident or a violation under the *Aeronautics Act*.

If special monitoring indicates a deficiency in testing technique or application of the standards, the supervising inspector will initiate educational or remedial action. Such action must be recorded in the examiner's file. Suspension of the examiner's accreditation, if appropriate, must have the concurrence of the Regional Manager - General Aviation.

Maintaining Currency

Pilot Examiners are expected to maintain a high degree of proficiency in flying skills and evaluation techniques and demonstrate aviation safety at all times. Examiners must be up-to-date with the applicable Flight Test Guides and the performance criteria imbedded in each item, as well as being up-to-date on regulatory, procedural and policy changes.

Pilot Examiners are encouraged to make application to attend Flight Instructor Refresher Courses to keep abreast of new developments in pilot training. Subject to other selection priorities, preference will be given to Pilot Examiners wishing to attend these courses.

Pilot Examiners holding an Instrument Rating accreditation will not consider the instrument flight time and approaches flown by flight test candidates for the purposes of personally meeting the requirements of CAR 401.05 – *Recency Requirements*, subsection (3) [6, 6 and 6].

Liability - Aircraft

In accordance with the *Canadian Aviation Regulations*, all privately and commercially registered aircraft are required to carry liability insurance. It is important to note that this insurance does not necessarily cover the Pilot Examiner while conducting a flight test.

Pilot Examiners should not accept a verbal statement from candidates indicating insurance coverage has been arranged. At the time of booking the flight test, the candidate should be advised that proof of insurance would be required prior to conducting the test.

Liability – Delegated Authority

Pilot Examiners receive their authority to exercise privileges on behalf of the Minister by means of a “Delegation of Authority” document. External delegates are regarded as Crown agents to the extent that they act on behalf of the Crown. The Government of Canada, under the provisions of the *Crown Liability and Proceedings Act*, will indemnify pilot examiners against personal liability incurred by reason of any act or omission, within the scope of their duties, and will make no claim against them (for damages the Crown has to pay) based upon such personal liability, if the pilot examiner acted within the scope of the delegation, honestly, without malice and with a standard of care like every other reasonable person in their position engaged in the same activity would take.

Reference: TP11825 - *Liability Through the Exercise of Delegated Authority*.

Request for Review of a Pilot Examiner's Decision

When a candidate is not satisfied with a pilot examiner's decision, a request for re-test may be forwarded to the Transport Canada Regional Office responsible for that pilot examiner. After due consideration of the individual case, the Regional Superintendent – Flight Training may authorize a re-test to be conducted, without prejudice, by a GA Inspector or an alternate pilot examiner. In such cases, the candidate will be given a complete test, including any items already assessed as passed on the previous test. A complete new application (where applicable) and test file must be prepared. The new flight test report determines the candidate's qualification.

Should the complaint not be addressed to the candidate's satisfaction, the procedure to follow is outlined in the 'Civil Aviation Issues Reporting System (CAIRS)'. The document can be found at:
<http://www.tc.gc.ca/CivilAviation/QualityAssurance/QA/cairs.htm>

Testing Examiner's Own Students

Pilot Examiners may conduct tests on students they have trained, provided another qualified flight instructor:

- (a) certifies that all of the tasks and manoeuvres required for the flight test have been reviewed by conducting a pre-test evaluation with the candidate; and
- (b) considers the candidate as having reached a sufficient level of competency to complete the flight test required for the issuance of the licence or rating sought.
- (c) recommends the candidate.

If additional training is required after the pre-flight test evaluation has been conducted, an instructor other than the examiner should provide this additional training.

If the pilot examiner conducts the additional training, another qualified instructor must conduct a subsequent pre-flight test evaluation to validate a recommendation.

Under extenuating circumstances and only by prior approval from the Regional Superintendent – Flight Training, the requirement for the recommendation by another flight instructor may be waived. These requests should be forwarded to the Regional Office.

Conflict of Interest

In order to avoid conflicts of interest, perceived or real, Pilot Examiners must follow the policy and guidelines contained in this manual.

A "*Conflict of Interest*" is a situation where the interest of a Pilot Examiner conflicts with the obligation to the public good and arises when a Pilot examiner is influenced to act either knowingly or unknowingly, in a manner that does not hold the safety of the flying public as the primary and highest priority. Pilot Examiners should not conduct flight tests in these instances unless a GA Inspector monitors the flight test or unless prior authorization has been granted by the Regional Office of Transport Canada.

Monitoring by a GA Inspector would dispel the perception of a conflict of interest. It would also fulfill the requirements of a biennial monitoring and ensure that the Pilot Examiner's indemnification of *personal liability* by the Government of Canada is preserved, in the event future litigation calls into question the candidate's ability and qualification.

Flight Test Results

The *Privacy Act* protects the privacy of individuals with respect to personal information held by a government institution. Flight tests measure the performance of candidates, examiners, recommending instructors and Chief Flight Instructors, as they are responsible for the training at flight training units. 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 evaluate whether a candidate meets the minimum skill standard for the licence or rating, whether the recommending instructor is performing competently as an instructor, whether the Pilot 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 flight test candidate and a copy will be retained by the Pilot Examiner who conducted the flight test. A copy may also be given, upon request, to the flight 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*.

Security of Flight Test Results

Pursuant to the *Privacy Act*, flight test results are records of personal information and as such must be treated as confidential information by all parties privy to the results. Appropriate security measures must be taken to ensure that access to the documents is restricted to those rightfully in possession of them.

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PRINCIPLES OF EVALUATION

Aim of the Flight Test

The aim of a flight test is to:

- (a) determine that the candidate meets the skill requirements for the licence or rating sought;
- (b) improve the standards of instruction and training of those exercises and procedures that are weak or commonly failed through feedback of information to the flight training units;
- (c) ensure acceptable levels of safety are maintained and improved throughout the aviation industry by requiring the application of sound airmanship and flight discipline.

The role of an examiner is to evaluate the knowledge and ability of candidates to determine whether they meet the required standard for a licence or rating. Examiners are professional, well-experienced pilots that are very familiar with the flight test for which they hold an accreditation. However, the marking or assessment decisions required to complete the evaluations on the flight test form are not so well known. The evaluation and assessments awarded will become more accurate and valid as a Pilot Examiner becomes more familiar with the evaluation process.

Evaluation Process

Evaluation is the process of observing, measuring and recording a candidate's performance in order to determine that the criteria outlined in the applicable flight test guide are met. Analysis of this *evaluation* provides information that is used to identify:

- (a) student deficiencies;
- (b) specific degrees of skill;
- (c) areas of weak instruction; and
- (d) areas of the training syllabus requiring improvement.

To improve the quality of training and enhance aviation safety, this information is then integrated into the training program in the form of revisions to training manuals, examinations and flight test standards.

Evaluation Cycle

The evaluation process is a five-stage cycle: objective, standards, performance, observation and assessment.

Objective. The first stage determines the objective of the flight test item. Since it would be meaningless to evaluate the student's performance without considering what that performance should be, the process of evaluation should begin with clearly defined objectives. These objectives are specified in the *Aim* statement for each flight test item in the applicable flight test guide. The *Aim* statement embodies the mandatory criteria to be achieved by the candidate.

Standards. To be proficient in evaluating a candidate's performance during a flight test, the examiner must be completely familiar with the standards for each item. These standards are described in the *Performance Criteria* statement for each item in the applicable flight test guide. If a criterion in this section is missed or poorly done, it should not result in a failure unless it is also embodied within the *Aim* statement.

Performance. During the flight test, the examiner assigns the tasks or manoeuvres in accordance with their *Description* and observes the candidate's performance in response to the situations presented.

Observation. The examiner observes the performance and compares it to the performance criteria for the task or manoeuvre.

Assessment. Based on observation of the candidate's performance under existing conditions, the examiner assesses the performance and assigns a mark. When a candidate commits significant errors during the performance of a task or manoeuvre or does not achieve the requirements of the *Aim* statement, the examiner must state the nature of the problem(s) in the *Remarks* column of the Flight Test Report. To be useful, the remarks must be clear and support the mark that has been assigned.

Factors affecting Evaluation

Comparing Candidates Against Each Other

When working with a group of candidates, there may be a tendency to compare one candidate to the other. It's a natural thing to do. When conducting a flight test however, compare the candidate's performance to the standard expressed in the *Performance Criteria* not to a person who is more or less skilled. The reason for this is, of course, to give the candidate a fair and valid flight test.

Characteristics of Evaluation

An evaluation may become useless if certain principles are not respected. The following five characteristics, when used carefully in the conduct of a flight test, will result in an accurate and effective evaluation.

Reliability. Reliability ensures consistent results. As applied to the flight test, this would mean that two identical performances should result in the same flight test score.

Human factors can have a significant affect on flight test reliability.

Some of these factors are:

- (a) **fatigue** - insufficient sleep or rest prior to the test
- (b) **emotions** - work or home personal problems
- (c) **health** - cold, flu, etc
- (d) **time of day** - very early in the morning, or last trip of the day
- (e) **distractions** - noise, interruptions, etc.

Examiners should be conscious of these factors and attempt to limit their effects as much as possible for they may result in a lack of smoothness or accuracy in the candidate's performance. Examiners should also be aware that their ability to accurately assess the candidate's performance could be adversely affected by these same factors.

Testing for the purpose of licensing must remain clearly removed from training in order to maintain the reliability of an evaluation. For example, a second or third attempt, in air flight test items, may give the candidate the immediate practice needed to demonstrate a manoeuvre adequately. For this reason, an item will not be repeated unless one of the following conditions applies:

- (a) **Discontinuance.** Discontinuance of a manoeuvre for valid safety reasons; i.e., a go-around or other procedure necessary to modify the originally planned manoeuvre.
- (b) **Collision Avoidance.** Examiner intervention on the flight controls to avoid another aircraft that the candidate could not have seen due to position or other factors.
- (c) **Misunderstood Request.** A legitimate instance when a candidate does not understand an examiner's request to perform a specific manoeuvre. A candidate's failure to know the requirements of a specified manoeuvre is not grounds for repeating a task or manoeuvre.
- (d) **Other Factors.** Any condition where the examiner was distracted to the point that the candidate's performance of the manoeuvre (radio calls, traffic, etc.) could not adequately be observed.

Validity. Tests are valid if they measure what they are supposed to measure and nothing else. Assessment of ground and air items must remain within the bounds of the appropriate flight test standards.

The scope of the test must be such that when candidates pass, they have met the skill requirements for the issuance of the permit, licence or rating sought.

Comprehensive. A test is comprehensive if it contains a sample of all course material and measures each area of skill and knowledge required to ensure the standard is met. Flight tests will be *comprehensive* if the examiner conforms to the items listed in the applicable flight test guide with no additions or deletions.

Discrimination. In testing, discrimination enables the examiner to detect different levels of achievement among candidates. Discrimination separates standard performance from above and below standard performance. For this reason examiners must take care with their requests for demonstration of various test items. The marking scale is designed to reveal how candidates perform and allows for a greater degree of discrimination than one that simply distinguishes between *pass* and *fail*. Also, the required minimum pass mark prevents candidates who consistently demonstrate weak performance throughout the flight test from passing.

Objectivity. Objectivity ensures the examiner's personal opinions *will not* affect the outcome or assessment of the test. Marks awarded must be made in accordance with the applicable performance criteria. Flight test marks are influenced to some degree by subjective opinions. Assessments will be more valid, less subjective, if the examiner is an experienced pilot, has a sound and adequate background knowledge of the evaluation process and the expertise to accurately assess flight test applicants without prejudice.

Evaluation Errors

In order to test effectively, the examiner requires not only a sound knowledge of the *characteristics of evaluation*, but also a firm understanding of the possible errors that can occur throughout the *evaluation process*. Errors in evaluation fall into several categories.

Personal Bias Error

Personal bias is indicated by the tendency of an examiner to rate candidates or a particular group of candidates the same.

Central Tendency Errors

Central tendency errors are indicated by a tendency to rate all or most candidates as *average*. The examiner really "feels" that the performance of most candidates is not as good as it should be and therefore underscores a candidate's good performance. On the other hand, the examiner is reluctant to cope with the possible emotional response of a candidate or a recommending instructor. This results in padded or inflated assessments of poor performance. This error may also occur because an examiner does not want to put effort into making a decision. An average mark is easier to defend.

Generosity Errors

Generosity errors are indicated by a tendency to rate all individuals at the *high end* of the scale and are probably the most common type of personal bias. This could be caused by an examiner's desire to be known as a nice person.

Severity Errors

In this case, all or most candidates are graded at the *low end* of the marking scale. Examiners may feel that the published standards are too low and score the test against their own set of standards. This type of examiner feels that few people can fly as well as they can.

Halo Effect

This occurs when an examiner's impression of a candidate is allowed to influence the assessment of performance. Halo error can result in rating an applicant too high or too low. One form of halo error is the error of leniency. Leniency has its source in an examiner's likes, dislikes, opinions, prejudices, moods and political or community influence of people. For example, when testing a friend, acquaintance, or high profile individual, an examiner may give undeservedly high marks or, conversely the error of stereotype.

Stereotype

As with the error of leniency, the error of stereotype has its source in likes, dislikes, opinions, prejudices, etc. In this case, however, an examiner may allow personal opinion or prejudice to influence the assessment of the candidate and award undeservedly low marks or high marks.

Logical Error

Logical error occurs when an examiner assumes that a high degree of ability in one area means a similar degree of competence in another. This is especially true if the two items being assessed are similar or related. A good mark on one or two items does not mean the candidate is also qualified on all items. The full test must be completed and marked.

Error of Narrow Criterion

This may occur when an examiner has a group of candidates to test. The examiner may, under this condition, rate each applicant against the others within the group instead of against the standards. If the group to be tested is above average, a candidate who is of average ability may be awarded an undeservedly low mark. If the group of candidates to be tested is below average, then a candidate who performs the best within this group may be awarded a higher assessment than actually deserved.

Error of Delayed Grading

This type of error occurs when there is a delay in the assessment of an item, resulting in a tendency to award average marks due to the lack of information and/or poor recall. The use of the top or bottom end of the marking scale would be avoided. By not making an assessment immediately after the event, examiners may award assessments based upon an overall impression of the flight test. This results in an erroneous assessment and a flight test report that is of little value to the training system.

Standards Error

All the errors we have discussed result in a standards error. However, if an examiner is not thoroughly familiar with established standards, as outlined in the applicable flight test guides, it is virtually impossible to conduct an evaluation to that standard.

While these errors may appear obvious on paper, they may not be under flight-test conditions, especially as the judgement of the examiner may be obscured by a combination of two or more. Examiners must, therefore, be aware of these errors to consciously prevent them from influencing the validity of the tests they conduct.

Oral Questions

The examiner uses oral questions to measure and evaluate the extent of aeronautical knowledge and to determine that the candidate meets the standard of knowledge required for the licence being sought.

This is a most important part of the flight test and it is the portion of flight testing that results in the greatest variance in standardization. For this reason it is essential that questions be prepared beforehand to ensure that they are worded correctly and that they are relevant and valid.

It is recommended that the examiner have a bank of questions prepared for all the required items or areas of the oral portion of the test. It is not intended that all of the questions prepared be asked but the additional questions will be available, if required. Moreover, a bank of questions will allow the examiner to vary the oral portion of the test somewhat, from candidate to candidate.

The prepared questions should be of a practical operational nature, based upon the aircraft and the trip assigned for the flight test. Theoretical type questions are not recommended on the flight test as this area is covered by the written examinations.

In preparing questions, it is recommended that you first write down the correct answer and then write a question that will elicit only that answer.

Questions should be carefully worded and not ambiguous. Good questions are easily understood and composed of common words. They should measure knowledge, not the use of language. Big words and high sounding phraseology may allow the examiner to display command of language and vocabulary but only detract attention from the test. If candidates cannot understand the meaning of the words, they will not be able to answer the question. Examiners should keep the vocabulary within the grasp of candidates.

To make sure that the candidate understands the question, familiar terms and words should be used. The situation and conditions must be clear, to give the candidate the chance to answer correctly.

A question should centre on one idea only. The examiner can guide the candidate through a complex procedure by asking “what”, “why”, “where”, “when” and “how” questions after the basic question has been asked. Example of a basic question: What is meant by the term VFR in aviation? Answer: Visual Flight Rules. Next question might be: Is the weather VFR for today’s flight? NOTE: this requires a Yes/No answer, but you could follow up with-- How do you know? Etc.

Keep questions as practical as possible. A flight test is an operational exercise where the candidate demonstrates knowledge and skill by going through an actual flight.

Questions should get the candidate thinking. Asking a question that requires a YES/NO answer doesn’t really tell the examiner much about the candidate’s level of understanding.

It is more effective to guide the candidate’s thoughts toward the area to be questioned and then ask the question. In this way the candidate can visualize the situation and then think about the answer to the specific question. Knowing that something happens is not as important as understanding WHY it happens.

Tricky or irrelevant questions should be avoided. Questions should be challenging for the candidate but all the necessary background to come to the answer must be provided.

SUMMARY: QUALITIES OF ORAL QUESTIONS

GOOD

EASILY UNDERSTOOD

Describe the steps to be followed on a crosswind takeoff.

COMPOSED OF COMMON WORDS

If you had an engine failure, what would be your first priority?

PROMOTES THINKING

Why is it so important to maintain the ideal glide speed for the aircraft?

PRACTICAL - OPERATIONAL

What documents are needed on board the aircraft for flight?

APPLICABLE / APPROPRIATE

What would happen if the aircraft were loaded with an aft C of G?

ONLY ONE CORRECT ANSWER

What is the normal climb speed for this aircraft?

NOT SO GOOD

BEWILDERING

If you wanted to take off in a crosswind, what would the aeroplane do?

OVERSIZE

List all the steps you would take if you had an engine failure.

TOSS - UP

Is the glide speed for your aircraft important during a forced approach?

IRRELEVANT

What fee is charged for an aircraft's Certificate of Registration?

LEADING

If an aircraft were loaded with an aft C of G would it tend to pitch nose up?

TRICK

What types of climb speeds are there for this aircraft?

Handling Candidate Answers

The examiner's role is different from the instructor's. Examiners are strictly there to observe and evaluate. Instructors are involved in the training experience with the student. They explain, demonstrate, allow students to practice, supervise practice and, finally, evaluate to confirm learning.

Here are a few tips to consider when receiving candidate answers:

Examiners should avoid confirming an answer. Moreover, responding, "No, that's not right" to an answer, may undermine a candidate's self-confidence and affect performance for the remainder of the flight test.

Examiners should avoid leading candidates to the correct answer. However, an examiner may ask for clarification. For example: The answer "The nose would pitch down!" to the question "What would happen if the aircraft was loaded with an aft centre of gravity?" could be followed with a demand to explain what is meant by demonstrating the answer with a model aircraft.

Examiners should ask for a complete answer. For example: A candidate should be asked if more documents are required when their answer to the question "What documents are required on board the aircraft for flight?" is "Certificate of Registration!".

General Principles of Flight Testing

Examiners are evaluators and observers on flight tests. The candidate must do the flying. Examiners should make a concerted effort to be relaxed and non-threatening. The candidate is probably nervous enough without examiners shaking their heads, stiffening to rigidity or gasping at inappropriate times. If examiners remain calm and neutral the candidate will perform better.

Apply the standards in the applicable flight test guide regardless of the training and experience of the candidate.

The assigned task should be evaluated in relation to the standard for each item as stated in the *Aim* and prescribed *Performance Criteria*. Avoid the tendency to start with the ideal and reduce the assessment by one position for each error.

Assess the candidate against what would be an “ideal performance under existing conditions”. For example, if it’s windy and turbulent, the candidate will not be able to maintain altitude, heading and airspeed as well as if the day was calm.

Give credit where credit is due, and do not be influenced by poor performance on a previous item when assessing any other item.

Make use of the available scale of assessments, (a poor performance or an ideal one should be credited with the appropriate assessment). Consider each mark awarded. First, decide whether the aim of the item has been achieved, then determine which assessment best describes the quality of the candidate’s performance.

Mark each item as soon as possible after it has been completed. If marks of 2 or less are awarded, written remarks must be made. The remarks are to be sufficient to inform others, to support subsequent discussion and justify the mark assigned.

CONDUCTING THE FLIGHT TEST

Pre-test Organization

A *Flight Test Organizer* is included in the Examiner's Toolbox on the Transport Canada website.

Authorization of Flight Instructor Rating flight tests

After determining a tentative date and time for a flight test, Pilot Examiners for Flight Instructor Ratings will advise the TC Regional Office or TCC. The Regional Office may authorize the flight test or elect to have a GA Inspector conduct the flight test. After the test is authorized, recommendations regarding the areas that should be tested may be passed on to the pilot examiner.

A pilot examiner who is authorized to conduct Class 2 Flight Instructor Rating renewals may conduct the flight test to upgrade a candidate from a Class 3 to a Class 2 rating.

An applicant who is the subject of follow-up action in accordance with 421.67 is not eligible to upgrade from a Class 3 to a Class 2 Flight Instructor Rating.

Aircraft and Equipment Requirements

General

Except as otherwise noted, aircraft used for flight tests will:

- (a) have a valid and current flight authority pursuant to CAR 507;
- (b) meet the requirements of CAR 605.06 – *Aircraft Equipment Standards and Serviceability*. (All required equipment must be serviceable and the maintenance requirements current).; and
- (c) be flown in accordance with the requirements of CAR 602.07 – *Aircraft Operating Limitations* Operated within the approved flight operating limitations (Day/Night/VFR/IFR), airframe limitations, and engine limitations set out in the approved POH/AFM or approved POH/AFM supplements.

Recreational Pilot Permit and Private Pilot Licence Flight Test – Aeroplane

The examiner will ensure that the candidate provides:

- (a) an aeroplane for the flight test that:
 - (i) has a flight authority that has no operating limitations that prohibit the performance of the required manoeuvres; and
 - (ii) meets the requirements of section 425.23 *Training Aircraft Requirements* – subsections (1), (2) and (3) of the *Personnel Licensing Standard*;
- (b) appropriate current aeronautical charts and current *Canada Flight Supplement*; and
- (c) for the Private Pilot licence flight test, an effective means of excluding outside visual reference to simulate instrument flight conditions, while maintaining a safe level of visibility for the pilot examiner.

Commercial Pilot Licence Flight Test – Aeroplane and Flight Instructor Rating – Aeroplane

The examiner will ensure that the candidate provides:

- (a) an aeroplane for the flight test that:
 - (i) has a flight authority that has no operating limitations that prohibit the performance of the required manoeuvres (including intentional spinning);
 - (ii) meets the requirements of section 425.23 *Training Aircraft Requirements* – subsections (1), (2), (3) and (4) of the *Personnel Licensing Standards*; and
- (b) appropriate current aeronautical charts and current *Canada Flight Supplement*;
- (c) an effective means of excluding outside visual reference to simulate instrument flight conditions, while maintaining a safe level of visibility for the examiner.

Note 1: Subject to evidence of having had training on each type, more than one aeroplane may be provided to satisfy the requirements of the flight test.

Note 2: In the case of Flight Instructor Rating renewals, the requirement to provide an aeroplane certified for intentional spinning may be waived by the examiner where there is no intent to test instruction for spinning or advanced stalls.

Private and Commercial Flight Test - Helicopter and Flight Instructor Rating - Helicopter

The examiner will ensure that the candidate provides:

- (a) a helicopter for the flight test that:
 - (i) has a flight authority that has no operating limitations that prohibit the performance of the required manoeuvres, including full-on autorotations;
 - (ii) meets the requirements of section 425.23 *Training Aircraft Requirements* - subsections (1), (2) and (3) of the *Personnel Licensing Standards*; and
 - (iii) is equipped with suitable radio and two-way intercom voice communication
- (b) appropriate current aeronautical charts and current *Canada Flight Supplement*; and
- (c) an effective means of excluding outside visual reference to simulate instrument flight conditions, while maintaining a safe level of visibility for the examiner.

Multi-engine Class Rating – Aeroplane

The examiner will ensure that the candidate provides an aeroplane that:

- (a) has a flight authority that has no operating limitations that prohibit the performance of the required manoeuvres; and
- (b) meets the requirements of section 425.23 *Training Aircraft Requirements* - subsections (1) and (2) of the *Personnel Licensing Standards*.

Instrument Rating Flight Test

The examiner will ensure that the candidate provides equipment appropriate for the flight test for the Instrument Rating in accordance with the following criteria:

- (a) Aircraft to be used for an Instrument Rating flight test will meet the following requirements:
 - (i) aeroplanes will be approved for IFR flight operations in the AFM/POH or AFM/POH Supplement (CAR 602.07 – *Aircraft Operating Limitations*);
 - (ii) helicopters will:
 - (A) be equipped with suitable radio and two-way intercom voice communication.
 - (B) be approved for Day or Night VFR; or
 - (C) when flown on an IFR Flight Plan, be approved for IFR flight operations in the AFM/POH or Supplement (CAR 602.07 – *Aircraft Operating Limitations*);
 - (iii) aircraft will be equipped in accordance with section 425.23 - *Training Aircraft Requirements*, subsections (1), (2) and (7) of the *Personnel Licensing Standards* (subsection (7) refers to CAR 605.18 – *Power-driven Aircraft – IFR*);
 - (iv) where an observer's seat is occupied by an examiner, it will:
 - (A) be equipped with a safety harness installed in accordance with the *Airworthiness Standards*;
 - (B) be located to permit an unobstructed view of the aircraft instruments, radios and navigation equipment; and
 - (C) be equipped to monitor intercom and air to ground and air to air radio communications.
- (b) Simulators
A flight test for an Instrument Rating may be conducted in a Level A or higher flight simulator approved in accordance with the *Aeroplane and Rotorcraft Simulator Manual* (TP9685)
- (c) Charts
Candidates for an Instrument Rating flight test will have current enroute, terminal and approach charts available for the area where the flight test is to occur and a current *Canada Flight Supplement*.

Note 1: The candidate must provide an effective means of excluding outside visual reference to simulate instrument flight conditions, while maintaining a safe level of visibility for the examiner.

Note 2: Helicopter operations in accordance with *Instrument Flight Rules* (IFR) are only allowed in helicopters meeting the requirements of CAR 602.07– *Aircraft Operating Limitations*. Helicopters used are generally complex multi-crew, multi-engine machines that are not operationally practical or financially feasible for instrument rating training and testing. Operators of these types have rigorous operational control systems. It is therefore considered acceptable normal practice to simulate IFR flight in VMC with less complex helicopters that are restricted to VFR operations only for the purposes of training and evaluation for the Instrument Rating.

Meeting the Candidate

Examiners have a lot more experience conducting flight tests than their candidate's have being tested. It's important to remember this and to always respect the candidate's situation. A certain level of nervousness will always be present in flight test candidates. Examiners should conduct themselves in a manner that does not add to the normal stress of the test situation. The Flight Test Organizer (Examiner's Toolbox on the TC website) lists a number of items to help create a positive flight test environment:

Letters of Recommendation

The person recommending the candidate for the flight test should, where possible, be the person who has conducted 50% or more of the last 10 hours of dual flight instruction. In the case of a re-test, the person who conducted the additional training will sign the letter of recommendation.

The written recommendation for all flight tests is valid for 30 days. The supervising instructor of a Class 4 instructor recommending a candidate for a Recreational, Private or Commercial Pilot flight test must countersign the letter of recommendation.

Establishing the Candidate's Eligibility

RPP(A), and PPL and CPL - Aeroplane or Helicopter

In order to be admitted to a flight test required for the issuance of a Pilot Permit-Recreational – Aeroplane, Private Pilot Licence or Commercial Pilot Licence, the candidate will present:

- (a) photo identification;
- (b) a valid permit or licence;
- (c) proof of meeting the medical standards for the permit or licence sought;
- (d) a letter from a qualified flight instructor certifying that:
 - (i) the instructor has personally completed a pre-test evaluation with the candidate;
 - (ii) the candidate is considered to have reached a sufficient level of competency to complete the flight test for the issuance of the rating, permit or licence;
 - (iii) the instructor recommends the candidate for the flight test.
- (e) evidence of meeting the requirements of section 421.14 – *Flight Test Prerequisites of the Personnel Licensing Standards*, including:
 - (i) in the case of a candidate for a Pilot Permit-Recreational - Aeroplane (RPP) flight test, no less than 25 hours flight time;
 - (ii) in the case of a candidate for a Private Pilot Licence (PPL) flight test, no less than 35 hours flight time;
 - (iii) in the case of a candidate for a flight test other than RPP and PPL, no less than 75% of the total flying experience required for the licence.

Note 1: The applicable Flight Test Guide will be the final authority for the requirements noted above. These may vary from one type of test to another.

Note 2: Holders of valid Private and Commercial Pilot Licences issued by a contracting state of the International Civil Aviation Organization are exempt from the requirement of a written recommendation, if the flight test is for the purpose of obtaining the equivalent Canadian licence.

Multi-Engine Rating - Aeroplane

In order to be admitted to the flight test required for the multi-engine class rating, the candidate will present:

- (a) photo identification;
- (b) a valid Pilot Licence - Aeroplane category;
- (c) proof of meeting the medical standards for the licence held;
- (d) a completed form 26-0083 Flight Crew Permit/Licence - Application For Endorsement of a Rating;
- (e) a recommendation letter dated within 30 days prior to the flight test from a person qualified in accordance with section 425.21(5) of the *Personnel Licensing Standards* certifying that:
 - (i) the person recommending has personally conducted a pre-test evaluation with the candidate;
 - (ii) the candidate has received in-flight training and has carried out actual propeller feathering, engine shut-down, restart and propeller unfeathering procedures on a specific date and specific aircraft;
 - (iii) the candidate is considered to have reached a sufficient level of competency to complete the flight test for the issuance of a multi-engine class rating; and
 - (iv) the candidate is recommended for the flight test.

Initial Instrument Rating

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

- (a) photo identification;
- (b) a valid pilot licence with a valid medical certificate;
- (c) proof of having successfully completed the written examination (INRAT) prescribed in the *Personnel Licensing Standards* within the previous 24 months [CAR 400.03(1)];
- (d) proof that the training and experience requirements as set out in the *Personnel Licensing Standards* have been met; and
- (e) a completed form 26-0083 Flight Crew Permit/Licence - Application For Endorsement of a Rating, that includes a written recommendation from a qualified person certifying that the candidate has the training and experience required and has reached a sufficient level of competency to complete the flight test.

Renewal of Instrument Rating

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

- (a) photo identification;
- (b) a valid pilot licence with a valid medical certificate;
- (c) proof of having held a valid Canadian Instrument Rating within the previous 24 months.

Renewal of Flight Instructor Rating

(ensure the test has been authorized by TC)

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

- (a) photo identification;
- (b) a valid pilot licence with a current medical certificate;
- (c) proof of having held a valid flight instructor rating within the previous 24 months.

Partial Flight Test

Prior to admission to a partial re-test following failure of a flight test, the candidate will provide:

- (a) photo identification;
- (b) a copy of the Flight Test Report for the previously failed flight test;
- (c) a new letter of recommendation, signed by a qualified person, dated within 30 days prior to the partial flight test, certifying that the candidate:
 - (i) has received further training on the failed item(s);
 - (ii) is considered to have reached a sufficient level of competency to successfully complete the flight test;
 - (iii) is recommended for the re-test.

If recommended by a Class 4 instructor, the supervising instructor must countersign the letter of recommendation.

Briefing the Candidate

The briefing is commonly divided into two parts, one outlining the ground portion of the flight test, the other, a thorough pre-flight briefing following the ground portion. Time should be taken to clear up any questions the candidate may have regarding the test. It is a good time to ensure that the candidate is aware of the standards as outlined in the appropriate flight test guide.

Examiners are required to brief test candidates on the following details:

- (a) **The sequence of flight test items.** There is no need for the candidate to memorize this 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 was not 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.
- (d) **Who will do what in the event of an actual emergency?** A briefing by the candidate should detail the actions to be taken by the candidate and examiner in the event of an actual emergency.
- (e) **How to transfer control.** There should never be any doubt as to who is flying the aircraft, so proper transfer of control using phrases such as “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) **Ground References.** Intended touchdown zones and specific touchdown points. For the short or soft field approach and landing, the examiner will clearly specify the simulated surface conditions, obstacles on approach, runway threshold and length of surface available to the candidate.
- (g) **Method of simulating emergencies.** What method will be used? Verbal? Engine failures will only be simulated in accordance with the manufacturer’s recommendations or, in their absence, by closing the throttle or by reducing power to flight idle. The moving of mixture controls to idle cut-off will only be used where specifically recommended by the manufacturer.

Note: The practice of closing fuel valves, shutting off magneto switches or pulling of circuit breakers will not be used during a flight test.

In the case of a commercial pilot - aeroplane flight test, when two (2) aeroplanes are to be used to complete the required flight test items, the flight test items should be divided in a practicable way to avoid, as much as possible, re-assessing items performed for the purposes of both flights.

When multiple flights occur to complete the flight test, it must be made clear to the candidate that items required to be repeated for the purposes of the second flight may be re-assessed as “Below Standard” if their aim is not achieved or safety is compromised.

Test Conditions

All flight tests will be conducted, at the sole discretion of the examiner, when the weather conditions do not present a hazard to the operation of the aircraft and will permit the required tasks to be tested, the aircraft is airworthy, and the candidate’s documents, as required by the *Canadian Aviation Regulations*, are valid.

Flight Test

All of the flight test items required by the flight test report and described in the applicable flight test guide must be completed and the applicable minimum pass mark must be achieved.

Ground flight test items are those exercises or tasks performed prior to the pre-flight inspection of the aircraft.

Air flight test items are those exercises, tasks or manoeuvres performed with the aircraft, including the pre-flight inspection, start-up, run-up, taxiing and emergency procedures.

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

Pass Marks

The pass mark for each flight test is:

Pilot Permit – Recreational	Aeroplane	42 (50%)
Private Pilot Licence	Aeroplane	62 (50%)
	Helicopter	72 (50%)
Commercial Pilot Licence	Aeroplane	93 (70%)
	Integrated CPL(A)	81 (70%)
	Helicopter	104 (70%)
Multi-engine Class Rating	Aeroplane	73 (70%)
Instrument Rating	Aeroplane and Helicopter	39 (60%)
Flight Instructor Rating	Aeroplane and Helicopter	Achieve the required standard for the rating held or sought.

Repeated Flight Test Item

A flight test item or manoeuvre is performed once and assessed once. An item or manoeuvre may be repeated only in the following circumstances:

- (a) **Discontinuance:** Discontinuance of a manoeuvre for valid safety reasons; i.e., a go-around or other procedure necessary to modify the originally planned manoeuvre.
- (b) **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.
- (c) **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 a flight test item or manoeuvre.
- (d) **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 safety and do not mean that instruction, practice, or the repeating of a flight test item or manoeuvre unacceptably demonstrated, are permitted during the flight test evaluation process.

Incomplete Flight Test

If the test is not completed due to circumstances beyond the candidate's control, the subsequent flight test will include the flight test items not completed on the original flight test and will be completed within the 30 days of the original letter of recommendation.

The following process will apply:

- (a) a copy of the incomplete 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 letter of recommendation remains 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 "Below Standard" if their aim is not achieved or safety is compromised
- (f) the original flight test report form may be used to complete the test, or two separate forms may be submitted;
- (g) the candidate is permitted to perfect his/her training while awaiting completion of the test.

If the initial flight test included one or two failed air items, the partial flight test for these items may be conducted during the subsequent flight test flight, after the candidate has completed all of the required items, provided:

- (a) the minimum pass mark has been achieved;
- (b) no additional items were failed during the subsequent flight test; and
- (c) a letter of recommendation for the partial flight test was received prior to the flight.

Failure of a Flight Test

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

The failure of any item during the assessment of ground flight test items requires a complete re-test and precludes the flight portion of the flight test. Ground flight test items are not eligible for a partial flight test. Examiners should evaluate all ground flight test items prior to announcing a failure and stopping the test. This would provide good feedback during the debriefing to the candidate and recommending instructor.

The failure of one or two air flight test items (one for Instrument Rating) requires a partial flight test on those items. The failure of a third (second for Instrument Rating) air flight test item requires a complete re-test. At that point, the examiner will stop the test and assess it as a failure. The failure of any portion of the flight test for the Flight Instructor Rating requires a complete re-test.

A complete re-test will be required if the candidate compromises safety by:

- (a) displaying unsafe or dangerous flying; or
- (b) demonstrating a pattern of failing to use proper visual scanning techniques to check for traffic before and while performing visual manoeuvres.

Where the holder of a valid instrument or instructor rating fails a flight test required for the renewal of the rating, the examiner will initiate the suspension process by drawing a line through the rating privileges on the holder's licence (both English and French) and write "Instrument Rating Suspended" or "Instructor Rating Suspended" followed by the examiners signature and the date. The examiner will contact 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.

Partial Flight Test

Provided that the applicable pass mark has been achieved and there are no more than two failed air items (one for Instrument Rating), the skill requirement for licence/rating issuance/renewal may be met by completing a partial re-test of the items assessed as “Below Standard”.

The candidate will be required to successfully perform the air items failed on the complete flight test. Flight test items already assessed will not be re-tested, but flight test items already demonstrated during the initial flight, but repeated for the purpose of the second flight, may be re-assessed as “Below Standard” if their aim is not achieved or safety is compromised.

The partial flight test must be completed within 30 days of the original flight test. 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) failure of any ground flight test item;
- (c) failure of more than two air flight test items (more than one air items for the Instrument Rating) during a complete flight test;
- (d) failure of an air flight test item during a partial flight test;
- (e) displaying unsafe or dangerous flying; or
- (f) demonstrating a pattern of failing to use proper visual scanning techniques to clear the area before and while performing visual manoeuvres; or
- (g) a partial flight test is not completed within 30 days of the original complete flight test; and
- (h) in the case of a flight instructor rating flight test, the failure of any item.

Note: In the case of a complete re-test, the examiner should not ask to see a copy of the previously failed flight test report.

Flight Test Profile

Flight tests should follow a planned sequence that results in a minimum amount of unproductive flight time. By pre-planning, an examiner can combine various items such as high level, low level, and circuit work in order to keep transit time and repetitive climbing and descending to a minimum. However, care must be taken to ensure that the candidate will not be rushed while demonstrating the flight test items.

No matter what test format is used, care must be taken with regard to the diversion portion of the navigation items. The candidate must be allowed time to identify the present location before commencing the diversion when, after the high level cross country, the examiner has requested other demonstrations which could have caused their position to become uncertain. It is not acceptable to request a diversion from an unknown position.

There is no hard and fast order in which the various items should be tested. The following are examples of item sequencing for the flight test. This information is intended as a **guide** for examiners to draw up their own plan of action for the airborne portion of the flight test.

RPP(A), PPL(A), CPL(A) – (Average RPP(A) 1.3 hr., PPL 1.6 hr., CPL 1.8 hr.)

- pilot navigation;
- diversion;
- instrument flying;
- high level test items;
- forced landing approach;
- precautionary landing;
- a circuit, with either a normal takeoff and landing, or a maximum performance takeoff and landing at an alternate aerodrome or upon return to the departure airport;
- radio navigation;
- return to airport of departure for completion of circuit work.

PPL(H), CPL(H) – (Average 1.7 hr.)

- navigation;
- diversion, low level navigation;
- instrument work;
- steep turn;
- forced landing approach;
- confined area;
- emergencies returning to airport of departure for autorotations and other circuit work.
- a circuit, with either a normal takeoff and landing, or an advanced takeoff and landing;

Instrument Rating – (Average 1.3 hr.)

- a takeoff and departure;
- pilot navigation and tracking;
- a hold;
- one instrument approach procedure;
- a missed approach;
- a different instrument approach procedure;
- three simulated emergencies;
- at least one transition to landing.

Multi-engine Rating - (Average 1.1 hr.)

- a takeoff, circuit and landing
- high level test items
- emergencies returning to airport of departure for the single-engine arrival and landing.

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 the manufacturer's specifications, recommended speeds and configurations in the Pilot's Operating Handbook/Aircraft Flight Manual (POH/AFM) or other approved data.

The recommended climb and approach to landing airspeeds may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.63 *Climb, General* and section 523.73 *Reference Landing Approach Speed*. *AWM 523* (FAR 23) is the certification standard upon which POH/AFMs are established for aeroplanes of 12,500 lbs or less.

Use of Checklists

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 these cases, a review of the checklist after the elements have been accomplished would be appropriate. The division of attention between the checklist and lookout for traffic should be considered. Certain items may be verified from memory.

Takeoffs and Landings

The element pertaining to the accuracy of lateral positioning on the runway during takeoffs and landings will be assessed in accordance with the following criteria:

- (a) 4 - The fuselage remains over the centreline of the runway/landing surface;
- (b) 3 - The wing remains over the centreline of the runway/landing surface;
- (c) 2 - The aeroplane is at or drifts to a position where the centreline of the runway/landing surface is beyond the wing tip;
- (d) 1 - The aeroplane's longitudinal axis is at or drifts to more than halfway from the centreline of the runway/landing surface towards the edge of the pavement/prepared surface. Narrower runways will demand more accuracy.

Tolerances

Where a candidate exceeds a tolerance specified in the performance criteria because of pilot error or poor technique, but recovers in a timely manner, the performance pertaining to that criterion may be acceptable, if safety was not compromised.

Unless otherwise stated, if a tolerance is exceeded by more than double the specified value because of pilot error or poor technique (not due to wind/weather, turbulence or traffic conditions), the performance will be deemed to be "Below Standard", even if a correction is made.

Examiner Discretion

Deviations from the published criteria due to weather, turbulence, traffic or other situations beyond the control of the candidate must be taken into consideration when assessing the various test items. To enhance objectivity and to reduce the need for the examiner to make allowances in assessing such situations the test should, whenever possible, be conducted under normal flight conditions.

Marking Scales

For all flight tests other than the flight instructor rating flight test, a 4-point marking scale is used in accordance with the applicable flight test guide. For the instructor rating flight test the scale is F-3-2-1.

Flight Test Remarks

Except for the flight instructor rating flight test, written remarks are required when awarding a flight test item a mark of 1 or 2. **These remarks must be numbered to link to the applicable flight test item(s).**

2 (Basic Standard) - describe the major variation(s) and make the link to *Performance Criteria* for the test item as outlined in the flight test guide; or

1 (Below Standard) - describe the appropriate item or items that resulted in an assessment of fail and make the link to *Performance Criteria* made obligatory by the *Aim* statement.

During a flight test, it is sometimes difficult to write *clear* and *concise* remarks. It is recommended that examiners use notes made during the flight test to complete a final copy of the Flight Test Report. This allows the examiner to refer to the appropriate flight test criterion while writing final comments.

The wording of remarks to support a “2” must not describe performance that would warrant or infer unacceptable performance.

Post Flight Debriefing

The planning and organization for professional post-flight activities is essential. Debriefing needs to be valid and comprehensive.

- (a) The recommending instructor should be on hand for the post-flight debriefing.
- (b) The candidate should be advised of the outcome as soon as practicable.
- (c) Highlight above standard performance.
- (d) Debrief using the flight test report. The debriefing should begin with the strong points and work towards the weaker performance areas. The candidate may express where they did poorly.
- (e) Use the flight test guide to explain the reason for assessment of major deviations or unacceptable performance.
- (f) Offer recommendations to correct any errors or deficiencies.
- (g) Afterwards, brief the flight instructor on the candidate’s performance. This should be completed without the candidate present. Care should be taken not to criticize the instructor.

Note: Do not belabour your debrief but keep it to important points only. Do not get involved in arguments about the conduct of the test or the result. If there is a problem, record the details and actions and inform the Regional Superintendent – Flight Training.

Handling a Failed Flight Test

During the test or the debriefing, actions or comments by the examiner must be respectful toward the candidate. Examiners and candidates should keep in mind that it is not the examiner who fails the candidate, but rather it is the candidate whose performance on that day has not met the minimum skill standards needed to safely exercise the privileges of the licence or rating sought.

Candidates may become aware or assume that a flight test item has been performed “Below Standard”. Examiners should encourage candidates to continue, provided that the candidate is still eligible for a partial flight test. **Examiners will stop the test when air items are failed and it becomes evident that a complete re-test will be required.**

When the test has been completed or discontinued, a thorough debriefing on all phases of the test will be given to the candidate. For a debriefing to be meaningful and beneficial, the examiner must first inform the candidate how the test has been assessed - pass or fail. Until the candidate knows this assessment, all other words of wisdom and debriefing comments will be useless. Many industry examiners have found that a good way to inform the candidate that the standards have not been met is to ask the candidate how they feel the test went. The debriefing can then proceed. In order to better exercise the examiner’s role of assisting Transport Canada’s improvement of the quality of flight training, it is important that the recommending instructor and, if possible, the CFI be present.

Instrument or Flight Instructor Rating Failure

CAR 401.17(1), states: “Where, during a flight test, the holder of a valid rating fails to meet the requirements specified in the personnel licensing standards for the lowest class of that rating, the Minister will suspend the rating.” If the holder of a valid instrument or flight instructor rating fails a flight test, the examiner will initiate suspension by drawing a single line through the English and French endorsements on the applicant’s licence and writing the following notation: “**Instrument Rating suspended**” or “**Flight Instructor Rating suspended**” followed by the examiner’s signature and the date.

When an instrument rating is held in both aeroplane and helicopter categories, a failed flight test on the one category of aircraft should have no effect on the other **except** where, in the opinion of the examiner, a procedural error demonstrates the applicant's inability to perform in the other category.

The pilot must be informed of his or her right to a review of the suspension in accordance with the *Aeronautics Act*. The examiner will then, no later than the next working day, notify the Regional Superintendent - Flight Training who will ensure that a notice of suspension is issued.

Where, during the flight test for a flight instructor rating, a candidate fails to meet the requirements for renewal of the class of rating held, but meets the requirements for a lower class of that rating, the examiner will endorse the candidate’s licence with the lower class of that rating [CAR 401.17(2)].

Flight Test Records

The Flight Test Report form provides Transport Canada with a Flight Test Record for all flight instructors and examiners. This information is an extremely valuable tool used to monitor flight tests for trends in assessment, weak areas, and evaluation errors. Added emphasis can be given to national weak areas at standardization workshops and Flight Instructor Refresher Courses.

Explanation and use of the Flight Test Record form will be covered in detail during *initial* and *recurrent* examiner training.

Flight Test Reports

Flight test reports must be completed in full, including the FTU code, where applicable, by ensuring the marking circles are clearly filled without spilling over. **The number of the receipt for the fee received is required on the flight test report.**

Follow-Up and Administration

After the conduct of a flight test the examiner must complete follow-up and administrative duties.

These include the following:

- (a) submit the flight test report no later than 5 working days after the flight test;
- (b) provide feedback to the recommending Instructor or Chief Flight Instructor of the Flight Training Unit, if they were not present during the post flight debriefing;
- (c) confirm and clarify with the Flight Training Unit any recommended retraining requirements; and
- (d) discuss any identified training trends with either the Flight Training Unit or the Regional Superintendent - Flight Training.

Instructions for Completion of Flight Test Reports

General

The Flight Test Report is used in conjunction with two forms:

- (a) “Application for Flight Crew Permits/Licences” (26-0194) for the initial issuance of a flight crew permit or licence;
- (b) “Flight Crew Permit/Licence - Application for Endorsement of a Rating” (26-0083) to initiate the initial issuance of a licence with the appropriate of flight instructor rating, instrument rating, aeroplane class rating, or helicopter type rating.

The report is used to record the results of flight tests required for the issuance of a permit or licence and for the issuance or renewal of flight instructor ratings or instrument ratings.

Assessment

4 - Above Standard	no remarks required
3 - Standard	no remarks required
2 - Basic Standard	remarks required
1 - Below Standard - (Not acceptable)	remarks required

Complete the assessments by filling in the computer scannable dot (O) in the column designated for the mark awarded.

Completion of Blocks

NOTE: Some of the details listed below may not apply to all Flight Test Reports.

Name of Applicant - Use legal name (same as pilot licence/permit). File number is the same as licence number (all 6 digits including zeros); fill in appropriate computer scannable dots.

Change of Address – On the Instrument Rating flight test form, fill in the computer scannable dot and enter new address in the remarks area, in the event of address change. Please include the postal code and if available the home phone number of the candidate.

Date - Enter the date when the flight test is completed in a Day/Month/Year format, using two digits for each; fill in appropriate computer scannable dots.

Name of Instructor recommending Test - Use legal name (same as pilot licence). File number is the same as licence number (all 6 digits including Os); fill in appropriate computer scannable dots. If the recommending instructor is freelance (not associated with a Flight Training Unit), file in the O for Freelance.

Name of Examiner - Use legal name (same as pilot licence/permit). File number is the same as licence number (all 6 digits including Os); fill in appropriate computer scannable dots.

Flight Training Unit - Name of training unit to be entered in addition to the training unit's 4 digit code, fill in the appropriate computer scannable dots.

Aircraft Type and Registration - enter the aircraft type designator as per Subpart 421, Appendix A and enter the aircraft's full registration.

Simulator Type - enter the specific type of approved simulator and the level and the simulator identification number.

Instrument Rating – Enter the instrument rating group, appropriate to the category and class of aircraft, and fill in the O signifying an initial, renewal or partial test, as applicable.

Group 1 - Conventional multi-engine aeroplane.

Group 2 - Centre-line thrust multi-engine aeroplane.

Group 3 - Single-engine Aeroplane.

Group 4 – Helicopters

Private, Commercial, Int. Commercial (Integrated) or Partial Test - fill in the computer scannable O, as applicable.

Centre Thrust - If the aeroplane to be used for the Multi-engine Class Rating flight test has a centre-line thrust design, file in the O for Centre-Thrust. This will result in the issuance of a restricted rating.

Flight Test Region - fill in the computer scannable O, as applicable.

Medical Expiry Date - Enter the medical expiry date by applying the period, appropriate to the candidate's age and permit or licence, after the last examination date on the Medical Certificate.

Flight Instructor Rating - Fill in dot for Initial, Renewal or Upgrade, as applicable.

Emergency section - The examiner enters, in his/her own words, a brief description of each abnormal and emergency procedure. E.g. A, B and C if multi-engine, or B, C and D if single-engine.

IFR Valid To – An instrument rating is valid to the end of the first day of the 25th month following the month in which the flight test was conducted. Enter the applicable month and year.

For an Instrument Rating renewal that is completed within the 90-day period prior to the expiry date of the existing rating, the renewed rating shall be valid to the same date as if the flight test was done during the month prior to the valid-to-date of the existing rating.

Valid To – A Class 4 Flight Instructor Rating is valid to the end of the first day of the 13th month following the month in which the flight test was conducted. A Class 3 Flight Instructor Rating is valid to the end of the first day of the 25th month following the month in which the flight test was conducted. A Class 2 Flight Instructor Rating is valid to the end of the first day of the 37th month following the month in which the flight test was conducted. A Class 1 Flight Instructor Rating is valid to the end of the first day of the 49th month following the month in which the flight test was conducted. Enter the applicable month and year.

For a Flight Instructor Rating renewal that is completed within the 90-day period prior to the expiry date of the existing rating, the renewed rating shall be valid to the same date as if the flight test was done during the month prior to the valid-to-date of the existing rating.

Passed/Failed - The Passed or Failed dot must be darkened as appropriate.

Flight Test Times - Enter times by filling in the computer scannable O, as applicable.

Signature of Examiner – The examiner will sign this block of the form.

Receipt No. - enter the number of the receipt given to the candidate for fees received.

Notes:

- Due to tolerances of the computer scanner only original printed forms can be scanned. Marks or holes on blue lines will cause scanning problems.
- When filling in the dots, ensure they are completely filled in and do not go outside the circles or scanning problems could occur

Administrative Process

Upon completion of the Flight Test Report, the examiner may provide a copy to a successful candidate or upon request to any other party named on the report. If the flight test was assessed 'fail', the candidate must receive a copy of the flight test report for admission to a partial flight test and to ensure that any supplementary training is applied to the correct flight test item. The examiner will keep a file copy. Copies of all flight test reports must be kept for a period of at least two years.

In the case of permits or licences, "Applications for Flight Crew Permits/Licences" (26-0194) and for multi-engine class ratings "Application for Endorsement of a Rating" (form 26-0083), are completed by Authorized Persons in accordance with the *Personnel Licensing Procedures Manual*.

In the case of the instrument or instructor ratings, the examiner will endorse the back of the applicant's licence with the additional privileges or issue a "Certification of Additional Privileges" card (26-0267), following the completion of all documentation to be submitted for application for a rating.

Issuance of a Multi-engine Class Rating, an **initial** instrument rating, or **upgrade** of a Flight Instructor Rating will only be undertaken when the following are submitted together:

- (a) the completed "Application for Endorsement of a Rating" (form 26-0083),
- (b) the \$30 fee; and
- (c) the "Flight Test Report".

"Flight Instructor Rating" or "Instrument Rating" **renewals** - the \$30 fee must accompany the Flight Test Report.

Note: To ensure proper processing, it is beneficial to use the 8-1/2 x 14 version of the "Flight Crew Permit/Licence - Application for Endorsement of a Rating form 26-0083" and "Application for Endorsement of a Rating" (form 26-0083). Please do not copy and shrink to 8-1/2 x 11. They are harder to read and might be missed by the staff processing the documents, as they are then the same size as the flight test reports and hide behind them.

Please ensure that you staple (1 only) your documents together when mailing them. They may get misplaced as they go to several people during processing. Please always place the Flight Test Report on top (for scanning purposes), any additional privileges cards or other documentation next (incl. cheques), then the Application for Endorsement of a Rating last (on the bottom).

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PILOT EXAMINER MANUAL ULTRA-LIGHT AEROPLANE

The material for this section is under development and will be incorporated in advance of the effective date of the new regulations that will require a flight test to demonstrate the skill requirements for the issuance of a Passenger Carrying Rating – Ultra-light Aeroplane and a Flight Instructor Rating – Ultra-light Aeroplane. A new Flight Test Guide will also be available before these regulations, which are in the final stages of approval, come into effect.

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PILOT EXAMINER MANUAL

PILOT PERMIT-RECREATIONAL - AEROPLANE

The following information supplements the information in the flight test guide and expresses more clearly the intent of the flight test items. This information should assist the examiner to conduct a valid and thorough flight test and aid in making accurate assessments of the candidate's skill and knowledge.

Examiners conducting the RPP flight test are very familiar with the process, flight test items and acceptable standards of the Private and Commercial-Aeroplane Flight Tests. With respect to the RPP Flight Test, the degree of familiarization with the content and acceptable standards is somewhat less, as the RPP flight test is a comparatively new test for examiners. The differences in how the various items are tested, and the acceptable standards to be applied on an RPP flight test are significant. Within this difference of familiarity exists a rating error waiting to occur. In measuring knowledge and skill, examiners must be careful to request demonstrations and apply standards that are appropriate and valid for the Pilot Permit Recreational - Aeroplane and not the more familiar private or commercial pilot licence flight test requirements.

Examiners should review the applicable flight test standards prior to conducting a flight test to ensure the appropriate standards are being applied. This quick review will prevent any differences from effecting the reliability and validity of the assessments awarded.

A brief summary or overview of the flight test items required on the RPP flight test, and the differences from the flight tests most examiners are used to conducting are as follows:

Ex. 2 - Aeroplane Familiarization and Preparation for Flight

A. Documents and Airworthiness.

Ensure that questions asked are relative to the aircraft being used for the flight test.

B. Aeroplane Performance.

The candidate may use the Pilot Operating Handbook to determine information other than essential performance speeds listed in the flight test guides as memory items.

Record the answers given to questions regarding the best angle of climb speed, best rate of climb speed, stall speed in the landing configuration and manoeuvring speed so that during the flight test, the actual speeds flown in the appropriate items may be compared. Questions relating to the Pilot Operating Handbook should be “operational” questions, particularly if the conditions of temperature, wind strength, airport elevation, etc. existing at the time of flight test can be utilized.

C. Weight and Balance, Loading.

Make this a practical exercise and relate the weight and balance problem to the proposed flight.

The candidate should also be asked to correct an out of C of G situation, and questioned to determine understanding of extreme C of G locations and the resulting effect on aircraft handling and performance.

D. Pre-Flight Inspection.

After the candidate has completed the pre-flight inspection, practical questions relating to the flight test aircraft should be asked. The candidate should be questioned to determine what appropriate action would be taken if an unsatisfactory item were detected during the pre-flight inspection. The failure by the candidate to visually confirm that there is sufficient fuel and oil for the actual intended flight is disqualifying and will constitute a failure of the flight test (Safety issue). It is intended that this visual check be an actual check of the tank (or tanks) as opposed to just a check of the fuel gauges. The verification of fuel and oil levels will be performed in accordance with the manufacturer's

recommendations in the POH/AFM. If the aircraft design precludes a visual check, fuel chits, fuel logs, or other credible means, which in the examiner's judgement meet the confirmation requirement, will be acceptable. The candidate is expected to conduct the oral passenger safety briefing at this time. Should the candidate omit the briefing, the examiner will ask the candidate to provide one. This situation will be assessed as a major deviation and the final assessment awarded will depend upon the quality and effectiveness of the briefing.

E. Engine Starting and Run-up and Use of Checklists.

Check to see if the candidate uses the checklist provided for the aeroplane. If the examiner does not agree with the content of the checklist, the candidate should not be penalized. This would be an item for the examiner to discuss with the CFI of the training unit, and if necessary the Regional Superintendent - Flight Training. The checks carried out should include at least the items mentioned in the applicable POH/AFM. The candidate should be questioned at this time to determine what action would be taken if the checks revealed a problem, (e.g. excessive magneto drop, instruments not indicating a change when mixture or carburettor heat controls, etc. are selected and/or reset). The requirement to ensure correct control surface movements is imbedded in the Aim and is a mandatory part of the checks.

Note: A check of flight controls for freedom and correct movement of the corresponding control surfaces is mandatory and will be conducted before flight. Should the candidate neglect this check, the examiner will ask the candidate to perform it.

Ex. 3 - Ancillary Controls

The candidate should be knowledgeable concerning the use of the carburettor heat, mixture control and any other ancillary controls fitted to the aeroplane used for the flight test. Leaning procedures should be examined during the flight or tested orally. The use of the mixture control to smooth out rough running following the application and removal of carburettor heat in flight should be assessed if such conditions exist, or be examined by practical questioning.

Ex. 4 - Taxiing

If significant wind exists, the candidate is expected to correctly use the controls to minimize the risk of an upset. If the test is conducted under calm or light wind conditions, it is appropriate that, while taxiing, the candidate be asked to demonstrate how the controls should be held under varying wind conditions. Except when making minor left and right turns to verify proper functioning of the flight instruments and when other traffic and conditions permit, the candidate is expected to make use of the centre-line markings on taxiways where available. Should the candidate omit the flight instrument checks, the examiner will ask the candidate to complete these checks prior to taking off. This will be assessed as a major deviation and the final assessment awarded will be dependent upon the effectiveness of the instrument check carried out.

Ex. 11 - Slow Flight

One of the objectives of slow flight is to assess the candidate's ability to sense the decrease in wing performance resulting from operations at high angles of attack. Flight at 5 KIAS above the indicated stall speed for the configuration is ideal. The use of power and a reduced weight lower the actual stall speed below the value quoted by the POH, allowing a margin for safety. A small increase in airspeed while turning or in turbulence is acceptable as the stall speed increases in these conditions. Avoid prolonged periods in slow flight to avoid possible overheating of some engine components. Good heading control and a recovery in straight and level flight is expected. The RPP candidate is not required to manoeuvre or execute turns in slow flight.

Ex. 12 - Stall

Recovery from the stall will be completed at the height recommended by the manufacturer or no less than 2,000 feet above ground level, whichever is greater. The examiner must be aware of the manufacturer's recommendation in this regard for the type of aeroplane to be used on the flight test. Examiners should avoid the tendency to assess candidates on the classic stall only. To ensure that comprehensive training in the stalling exercise is being carried out, and to avoid being predictable, it is recommended that the requested stall item differ from candidate to candidate. The stall may be entered from one of various flight conditions, for example; slow flight, a climbing or descending turn, or a simulated overshoot from a full flap approach to a landing.

Ex. 14 - Spiral

Care must be exercised during this flight test item to ensure that the candidate does not allow the aircraft to exceed airspeed or flight load factor limitations. The examiner should enter this manoeuvre from slow cruise, climbing turns, or from turns during slow flight to provide a greater margin for safety.

Before initiating the spiral dive, the examiner is not to indicate or state the manoeuvre that is about to be assessed, but simply advise the candidate to return the aircraft to straight and level flight on the command, "You have control!" Recovery should be completed without excessive airspeed above the minimum height specified by the manufacturer, or no less than 2,000 feet above ground, whichever is the greater.

Ex. 15 - Slipping

During the normal course of a flight test, there may be a number of opportunities to assess the slipping manoeuvre, such as during a forced landing or an approach to landing. However, should the candidate not demonstrate the sideslip during some phase of the test, you will request that the candidate demonstrate the use of a forward slip **or** a slipping turn to lose altitude. You should vary your request from candidate to candidate to confirm the status and extent of training actually being given by the FTUs.

Note: Any significant skidding manoeuvre is unacceptable.

Ex. 16 - Takeoff

It is recommended that you not request a specific takeoff; rather it is recommended a scenario be used so the candidate has to decide what procedure to use. When testing a takeoff other than a normal takeoff, ensure that the simulated runway length, surface conditions and obstacles in your scenario are clear to the candidate. For example, should you wish the candidate to perform a soft-field takeoff, make certain that the simulated conditions you specify for the surface clearly lead the candidate to conclude that a soft-field procedure is necessary. While it may not always be possible to assess the candidate's ability to compensate for a crosswind, every effort should be made to carry out this procedure. It may be necessary to request a runway other than the one in use, or it may be possible to use a nearby airport where a crosswind condition does exist.

Aircraft configuration and airspeeds utilized should be those specified in the Pilot Operating Handbook, taking into consideration existing conditions. The recommended climb speeds may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.63 *Climb, General*.

Prior to the takeoff, in the interest of better cockpit coordination, the candidate will complete a crew briefing with the examiner on the intended departure procedure, takeoff considerations and procedures to be used in the event of an actual engine failure during takeoff and initial climb. The crew briefing is not part of the take-off evaluation but essential to safety in the event of an actual emergency during the takeoff and initial climb.

Ex. 17 - Circuit

Evaluation of this item will be based upon the candidate's demonstration of correct circuit procedures for the aerodrome being used for the flight test.

This item must be assessed on a continuing basis throughout the flight test and a mark awarded only after the final landing. This will ensure that the candidate is assessed on the departure and entry procedures as well as a complete circuit after a takeoff leading to a landing. Touch and go takeoffs and landings are not recommended during the flight test.

Ex. 18 - Approach and Landing

As indicated in Exercise 16, ensure that the simulated conditions you specify will clearly indicate to the candidate the type of landing to be used.

Make every effort possible to utilize a runway where a crosswind condition exists in order to assess one of the landings. If you are at a busy airport, it may be possible to go to a nearby airport to carry out crosswind landings.

The recommended approach to landing airspeed may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.73 *Reference Landing Approach Speed*.

The candidate should maintain an approach profile that will result in airspeed at 50 feet AGL of 1.3 V_{so} , or the minimum safe speed for existing conditions. If the wind conditions dictate an increased speed or thermal lift is encountered over the runway some aircraft may exhibit a tendency to float in ground effect. In these cases, the candidate should not be assessed "Below Standard" for exceeding the touch-down distance parameter in the criterion, up to a maximum of double the specified distance, if correct and timely approach and landing techniques are used.

In assessing the candidate's ability to land within a pre-determined touchdown zone, it is not intended that examiners turn this item into a spot landing exercise. The main aim of the item is to determine that correct procedures and techniques are used in addition to achieving some accuracy. Should the candidate realize that the short-field landing in the intended touchdown zone couldn't be achieved, an overshoot, prior to commencing the flare, for a second attempt is acceptable but not ideal (3 or less). Rough technique and hard landings in an attempt to "plant" the aeroplane into the touchdown zone are unacceptable.

The overshoot (18C) may be assessed from any of the landing approaches, the forced landing approach or the precautionary landing.

Ex. 21 - Precautionary Landing

This item on the RPP flight test is not to be used as an emergency procedure and the scenario used by the examiner should not indicate such conditions to the candidate.

You will assign a suitable landing area, and the candidate will confirm the selected site as being suitable for landing or not (inspection).

The aim of this item is to carry out the procedures for a safe landing in a suitable area. Provided that the procedure used is organized, logical and the aircraft configuration is as recommended in the Pilot Operating Handbook, you should not be adversely influenced by a procedure that varies from your own. When a suitable aerodrome is available, candidates should be asked to demonstrate a short or soft field landing (Exercise 18) in order to evaluate them on this item, along with the precautionary approach.

Ex. 22 - Forced Landing

The engine failure will be simulated in accordance with the method recommended by the manufacturer. Engine failure should be simulated from approximately 3,000 feet AGL, if practicable, without advance warning from the examiner. The examiner should ensure that some choice of landing area exists within the field of vision of the candidate and within gliding range of the aircraft. Provided the aim of the item is accomplished in an organized manner, the examiner should not be adversely influenced if the procedure used varies slightly from the examiner's preferred procedure. In all cases, advise the candidates of the emergency by stating “simulated engine failure”.

As this is a simulated procedure, the candidate will be expected to demonstrate good airmanship by clearing the engine at appropriate intervals during the descent. The practice of leaving some power on and achieving a normal descent angle and airspeed by using flap is acceptable. Examiners should determine, during the pre-flight briefing, the candidate's intention with regard to the procedure to be used during this item.

Occasionally a candidate will, after commencing the forced landing, indicate a preference for another landing area. Normally a change of intended landing area during the approach is not acceptable, as one of the main competencies the examiner is required to assess during this test item is the candidate's ability to fly a gliding approach to a pre-selected landing area.

A change of field is acceptable from an altitude and a point in the approach where a landing could still have been made on the original landing site.

Ex. 23 - Pilot Navigation

Examiners conducting the RPP flight test will notice that pilot navigation is no longer a four-part item. For this test, Exercise 23 requires the examiner to assess only one area and assign the one mark for navigation.

The *Aim* of this item is to confirm that the candidate can effectively navigate from one place to another (map read).

The examiner will assign a destination and the candidate will carry out this flight towards that destination at altitude. Remember this is not a test of pure navigational skills but is an assessment of ability to proceed to a destination using mental dead reckoning and natural geographic features such as roads, railway tracks etc., if they are available. Rulers, notched pencils, protractors, and computers will not be used for this procedure.

Care must be taken with respect to this item. The candidates are not expected to be aware of their exact location after carrying out a series of other high altitude flight test manoeuvres. The examiner must allow time, and if required, be of some assistance while the candidate arranges the chart and determines their exact location and regains orientation. Following this procedure the examiner will assign the destination.

With respect to the estimated time of arrival and the actual time of arrival at the destination, no hard numbers have been established in the criteria. Examiners may accept an estimated time of arrival for this item that is reasonable, and would ensure that a successful trip to the chosen destination could be made. Many examiners have the candidate fly the complete flight to the selected site in order to carry out a precautionary landing at that site. In this case, the site may be an airstrip that is unfamiliar to the candidate.

Ex. 29 - Emergency Procedures/Malfunctions

If the flight test aircraft is one with which the examiner is not thoroughly familiar, the Pilot Operating Handbook should be studied before asking the candidate to demonstrate the ability to deal with various simulated emergencies.

Examiners should use a random sampling system, varying the emergency procedures requested to prevent the examiner's flight test from becoming predictable to candidates, and to ensure all systems and emergency procedures have been covered in training. It is entirely at your discretion, whether this flight test item is tested in the air or on the ground.

One method of testing an emergency procedure on the ground that many examiners find very effective, and one which you may wish to use when assessing this item, is to assess this item either prior to engine start or upon returning to the apron, just before or after the engine is shut down. After engine shutdown, the examiner places the throttle, mixture, related switches, and the various ancillary controls in the position they would normally be in for an engine running at cruise power. The examiner will then describe an emergency to the candidate such as an engine fire, etc. The examiner may then make an assessment based on how the candidate actually positions the appropriate controls, switches or valves associated with the drill rather than assessing a rote statement of how things should be done. Utilizing this method should preclude a candidate from receiving a favourable assessment based on the ability to recite an emergency drill when they in fact have no understanding or appreciation of the action the drill requires.

Only **one** (1) emergency or malfunction is required on the RPP(A) flight test.

PILOT EXAMINER MANUAL

PRIVATE PILOT LICENCE

AEROPLANE

This module supplements the flight test guide and expresses more clearly the intent of each flight test item. It will assist you, the examiner, in conducting a valid and thorough flight test and aid in making accurate assessments of the candidate's skill and knowledge.

Ex. 2 - Aeroplane Familiarization and Preparation for Flight

A. Documents and Airworthiness.

Ensure that questions asked are relative to the aircraft being used for the flight test.

B. Aeroplane Performance.

The candidate may use the Pilot Operating Handbook to determine information other than essential performance speeds listed in the flight test guide as memory items. Record the answers given to questions regarding the best angle of climb speed, best rate of climb speed and manoeuvring speed so that during the flight test the actual speeds flown in the appropriate exercises may be compared. Questions relating to the Pilot Operating Handbook should be “operational” questions, particularly if the conditions of temperature, wind strength, etc. existing at the time of flight test can be utilized. It can be helpful to present a scenario at an unknown airport with a higher or lower elevation than the candidate's home base.

The recommended climb and approach to landing airspeeds may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.63 *Climb, General* or section 523.73 *Reference Landing Approach Speed*.

C. Weight and Balance, Loading.

Make this a practical exercise and relate the weight and balance problem to the proposed cross-country flight (Exercise 23). The loading assigned should require some rearrangement of the load to bring the balance within limits requiring the candidate to correct a situation, where the centre of gravity (C of G) is slightly beyond limits. The candidate will be questioned on extreme C of G locations and their effect on aircraft handling and performance.

D. Pre-Flight Inspection.

After the candidate has completed the pre-flight inspection, practical questions relating to the flight test aircraft should be asked. The candidate should be questioned to determine what appropriate action would be taken if an unsatisfactory item were detected during the pre-flight inspection. The failure by the candidate to visually confirm that there is sufficient fuel and oil for the actual intended flight is disqualifying and will constitute a failure of the flight test. It is intended that this visual check be an actual check of the tank (or tanks) as opposed to just a check of the fuel gauges. The verification of fuel and oil levels will be performed in accordance with the manufacturer's recommendations in the POH/AFM. If the aircraft design dictates that visual checks are not possible, fuel chits, fuel logs or other credible means, which in your judgement meet the confirmation requirement, will be acceptable.

The candidate is expected to conduct the oral passenger safety briefing at this time. Should the candidate omit the briefing, you will ask the candidate to provide one. This situation will be assessed as a major error and the final assessment awarded will depend upon the quality and effectiveness of the briefing.

E. Engine Starting and Run-up, Use of Checklists.

Check to see if the candidate uses the checklist provided in the aircraft. If you do not agree with the content of the checklist, the candidate should not be penalized. This would be an item for you to discuss with the CFI of the training unit and, if necessary, the Regional Superintendent - Flight Training. The checks carried out should cover at least the items mentioned in the applicable POH/AFM. The candidate should be questioned at this time to determine what action would be taken if the checks revealed a problem, (e.g. excessive magneto drop, instruments not indicating a change when mixture or carburettor heat controls, etc. are selected and/or reset). The requirement to ensure correct control surface movements is imbedded in the Aim and is a mandatory part of the checks.

Note: A check of flight controls for freedom and correct movement of the corresponding control surfaces is mandatory and will be conducted before flight. Should the candidate neglect this check, the examiner will ask the candidate to perform it.

F. Operation of Aircraft Systems

This flight test item is evaluated throughout the flight test. The candidate should demonstrate ability to safely operate the various systems installed on the aircraft and will be questioned orally on **two (2)** items from the list in the flight test guide. The use of mixture control and carburettor heat, if installed, should be evaluated during the flight.

It is advisable to complete the oral portion of this flight test item prior to starting the engine.

Ex. 4 - Taxiing

If significant wind exists, the candidate is expected to correctly use the controls to minimize the risk of an upset. In zero or light wind conditions, while taxiing, ask the candidate to demonstrate control positions under simulated wind strengths and directions. Except when making left and right turns to verify proper functioning of the flight instruments and when other traffic and conditions permit, the candidate is expected to follow the centre-line markings on taxiways where available. Should the candidate omit the flight instrument checks, the examiner will ask the candidate to complete these checks prior to take-off. This will be assessed as a major error and the final assessment awarded will be dependent upon the effectiveness of the instrument check carried out.

Ex. 9 - Steep Turn

Be very clear when specifying altitude, airspeed, angle of bank (45°) and the geographic reference to be used. The examiner will be required to exercise good judgement and care in the selection of the geographic point. It should be narrow, prominent and clearly visible and not of such broad expanse that the aim of the exercise cannot be realistically achieved (e.g. “roll out within 10° of Lake Superior”). You must ensure that the candidate has the same reference point in mind, in order to avoid confusion when assessing the recovery.

Ex. 11 - Slow Flight

One of the objectives of slow flight is to assess the candidate's ability to sense the decrease in wing performance resulting from operations at high angles of attack. Flight at 5 KIAS above the indicated stall speed for the configuration is ideal. The use of power and a reduced weight lower the actual stall speed below the value quoted by the POH, allowing a margin for safety. A small increase in airspeed while turning or in turbulence is acceptable as the stall speed increases in these conditions. Avoid prolonged periods in slow flight to avoid possible overheating of some engine components. The PPL candidate will be asked to manoeuvre with gentle turns not exceeding 15 degrees of bank.

Ex. 12 - Stall

Recovery from the stall must be completed at the height recommended by the manufacturer, or no less than 2,000 feet above ground level, whichever is the greater.

To avoid being predictable and to ensure comprehensive training of this exercise, it is recommended that the requested stall differ from candidate to candidate. The stall may be entered from various flight conditions, e.g. slow flight, a climbing or descending turn, or a simulated overshoot from a full flap approach to a landing. Overcorrection, negative loading and excessive nose-down pitch attitudes are unacceptable. Attempts to control wing drop and yaw by using abrupt and full aileron deflection is unacceptable. During power-on stalls, some wing drop is acceptable but acceptable control of yaw is required.

Ex. 14 - Spiral

Care must be exercised during the demonstration of this flight test item to ensure that the aircraft is not allowed to exceed airspeed or flight load factor limitations. Entry to this manoeuvre from slow cruise, climbing turns, or from turns during slow flight will provide a greater margin for safety. Ensure that flaps are retracted.

Before initiating the spiral dive, you should not indicate or state the manoeuvre that is about to be assessed, but simply advise the candidate to return the aircraft to straight and level flight on the command, "You have control". Recovery should be completed at the height specified by the manufacturer, or no less than 2,000 feet above ground, whichever is the greater.

Ex. 15 - Slipping

During the normal course of a flight test, there may be a number of opportunities to assess the slipping manoeuvre, such as during a forced landing or an approach to landing. However, should the candidate not demonstrate the sideslip during some phase of the test, you will request that the candidate demonstrate the use of a forward slip **or** a slipping turn to lose altitude. You should vary your request from candidate to candidate to confirm the status and extent of training actually being given by the FTUs.

Note: Any significant skidding manoeuvre is not acceptable.

Ex. 16 - Takeoff

It is recommended that you use a take-off scenario that requires the candidate to decide what procedure to use. When testing a takeoff other than a normal takeoff, ensure that the simulated runway length and surface conditions of your scenario are clear to the candidate. For example, if you wish to see a soft-field takeoff, be certain that the simulated conditions that you specify for the surface clearly lead the candidate to conclude that a soft-field procedure is necessary. While it may not always be possible to assess the candidate's ability to compensate for a crosswind, every effort should be made to assess this. Request a runway other than the one in use or use a nearby airport where a crosswind condition does exist.

Aircraft configuration and airspeeds utilized should be those specified in the Pilot Operating Handbook, taking into consideration existing conditions. The recommended climb speeds may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.63 *Climb, General*.

Prior to take-off, in the interest of better cockpit co-ordination, the candidate will complete a crew briefing with the examiner on the intended departure procedure, takeoff considerations and procedures to be used in the event of an actual engine failure during takeoff and initial climb. The crew briefing is not part of the takeoff evaluation but essential to safety in the event of an actual emergency.

Ex. 17 - Circuit

This exercise will be assessed throughout the flight test and a mark awarded only after the final landing. This will ensure that the candidate is assessed on the departure and entry procedures as well as a complete circuit after a take-off leading to a landing. If the test is conducted from an uncontrolled airport the candidates should be questioned, or given simulated ATC clearances and instructions to assess their knowledge. If the test is conducted from a controlled airport, question the candidate's knowledge of circuit procedures for uncontrolled airports. If possible, it is recommended that both controlled and uncontrolled airports be used during the test, if they are conveniently available. Touch and go takeoffs and landings are not recommended during the flight test.

Ex. 18 - Approach and Landing

As indicated in Exercise 16, ensure that any simulated conditions clearly indicate to the candidate the type of landing expected.

Make every effort possible to utilize a runway where a crosswind condition exists in order to assess the candidate's ability in this area. If you are at a busy airport, it may be possible to go to a nearby airport to carry out crosswind landings.

The recommended approach to landing airspeed may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.73 *Reference Landing Approach Speed*.

The candidate should maintain an approach profile that will result in airspeed at 50 feet AGL of 1.3 V_{so}, or the minimum safe speed for existing conditions. If the wind conditions dictate greater than 1.3 V_{so}, or thermal lift is encountered over the runway, some aircraft types may exhibit a tendency to float in ground effect. In these cases, the candidate should not be assessed "Below Standard" for exceeding the touch-down distance parameter in the criterion, up to a maximum of double the specified distance, if correct and timely approach and landing techniques are used.

In assessing the candidate's ability to land within a pre-determined touchdown zone it is not intended that examiners turn this item into a spot landing exercise, rather the candidate's ability to land within a specified portion of the runway is to be assessed. The main aim of the item is to determine that correct procedures and techniques are used in addition to achieving some accuracy. Should the candidate realize that the short-field landing in the intended touchdown zone couldn't be achieved, an overshoot, prior to commencing the flare, for a second attempt is acceptable but not ideal (3 or less). Rough technique and hard landings in an attempt to "plant" the aeroplane into the touchdown zone are unacceptable.

The overshoot may be assessed in conjunction with this item, or called for and assessed from any of the landing approaches, the forced landing approach, or the precautionary landing approach.

Ex. 21 - Precautionary Landing

Be specific when outlining any simulated conditions that require a precautionary landing. If the scenario is based on weather conditions, then these conditions (i.e. ceiling, visibility, etc.) and their trends should be specified and remain constant during the procedure.

The aim of the item is to carry out the procedures for a safe landing in a suitable area. Provided that the procedure used is organized, logical and the aircraft configuration is as recommended in the Pilot Operating Handbook, you should not be adversely influenced by a procedure that varies from your own. When a suitable aerodrome is available, candidates should be asked to demonstrate a short or soft field landing (Exercise 18) in order to evaluate them on this item, along with the precautionary approach.

Should the inspected site not be suitable to complete a landing, you should let the candidate know that you will request a demonstration of the type of landing that would have been appropriate, on return to base.

Ex. 22 - Forced Landing

The forced landing item is not only about gliding to a point, it is also about managing an emergency situation, making correct decisions and following prescribed procedures that lead to a successful approach and landing.

The engine failure will be simulated in accordance with the method recommended by the manufacturer. When possible, engine failure should be simulated from approx. 3,000 feet AGL with no advanced warning. However, you should ensure that some suitable landing areas are available within the field of vision of the candidate and within gliding range of the aircraft. Provided the aim of the exercise is accomplished in an organized manner, you should not be adversely influenced if the procedure used varies from your own preferred procedure. In all cases, advise the candidates of the emergency by stating “simulated engine failure”.

As this is a simulated procedure, the candidate will be expected to demonstrate good airmanship by clearing the engine at appropriate intervals during the descent. The practice of leaving some power on and achieving a normal descent angle and airspeed by using flap is acceptable in very cold conditions. You should determine how the candidate plans to execute this item during the pre-flight briefing.

Occasionally a candidate will, after commencing the forced landing, indicate a preference for another landing area. Normally a change of intended landing area during the approach is not acceptable, as one of the main competencies the examiner is required to assess during this exercise is the candidate's ability to fly an approach to a pre-selected landing area.

A change of field is acceptable from an altitude and a point in the approach where a landing could still have been made on the original landing site.

You will evaluate the candidate's ability to safely handle this emergency through 2 separate flight test items, namely **22A.Control/Approach**, where you assess the actual hands-on flying skills and the ability to ‘make the field’. In **22B.Cockpit Management**, the candidate must demonstrate good airmanship and complete basic safety checks.

Ex. 23 - Pilot Navigation

A. Pre-flight Planning Procedures.

Assign a cross-country route that will promote decision-making. For example, choose a destination that is beyond the fuel range of the aeroplane, as loaded, or one where fuel is not available for the return flight. When assigning the cross-country, examiners should try to select a destination that will provide the candidate with suitable terrain and sufficient enroute checkpoints and avoid using a route that would parallel a major waterway or shoreline. Unless the candidate encounters delays in obtaining weather or other necessary information, preparation, excluding weight and balance computations, should be completed within 45 minutes. If the cross-country flight is assigned in advance, the candidate may make preliminary preparations only such as initial route selection, map preparation, determination of headings, selection of possible alternates and initial flight log entries prior to the flight test. In this case, on the day of the flight test, the candidate should, after obtaining weather information, complete all final preparation including weight and balance computations within 45 minutes. The candidate's completed calculations should be verified for accuracy.

B. Departure Procedure.

Candidates are not restricted to just one method of departure. They have the option of determining the appropriate departure procedure to use for the given location.

Assessment will be based on the candidate's demonstrated ability to carry out the pre-selected departure procedure. If, due to operational requirements beyond the control of the candidate, such as vectors from ATC, the candidate is unable to fly the pre-determined departure procedure, assessment should be based on the ability to adapt to the new circumstances and how the departure procedure is altered.

C. En Route Procedure

Where a routing has very few landmarks, additional time may be allowed for the candidate to determine if there is a track error. A better choice of routing, where available, would help prevent the need for additional time.

D. Diversion to an Alternate.

When you ask for a diversion after a series of other flight test manoeuvres, you must be of assistance in determining exact location and orientation and allow enough time for the candidate to arrange the chart. Only then should you request the diversion.

The diversion should be carried out at 500 feet AGL or a minimum safe altitude. When it is feasible to test the diversion at low level, you must consider the following:

- (a) regulations, built up areas etc.
- (b) safety considerations
- (c) suitability of the area, altitude and obstructions
- (d) annoyance to people or livestock

Do not set up the candidate for a possible contravention of the regulations.

The selected destination should not require the candidate to over-fly populated areas. Remember, this is not a test of pure navigational skills but rather an assessment of the candidate's ability to proceed to an alternate using mental dead reckoning and geographic features such as rivers, roads, railway tracks etc., if they are available. The candidate may change altitudes to suit the topography and will declare intentional changes of altitude to the examiner.

Rulers, notched pencils, protractors and computers will not be used for this procedure.

With respect to the estimated time of arrival and the actual time of arrival at the alternate, no hard numbers have been established in the criteria. Examiners may accept an estimated time of arrival for this item that is reasonable and would indicate that the diversion could be conducted as planned.

Ex. 24 - Instrument Flying

You must take extra care in the evaluation of these flight test items. A review of the flight test guides is recommended to make sure the differences between Private and Commercial candidates are clear to you and that the requested demonstrations are in fact appropriate to the licence being sought.

Both the flight test guide and flight test report place Exercise 24 - Instrument Flying as nearly the last flight test item. This is not intended to give you the impression that instrument flying must come at the conclusion of the test. Examiners who have completed this item right after the en route portion of the navigation item have indicated better results, due to the candidate being comparatively more alert and better able to concentrate on instrument flying. The possible effect on the instruments from such items as spinning and spiral dives is another reason why many examiners complete these items early in the flight test.

24A. - Full Panel

After donning a view-limiting device, the candidate should be allowed enough time to settle down in straight and level flight, before asking for any specific manoeuvres. This item is conducted using available flight instruments. The aeroplane does not require a complete panel of flight instruments for the private pilot flight test.

24C. - Recovery from Unusual Attitudes

Only **one** unusual attitude recovery is required and is performed using available flight instruments.

You should vary the type of unusual attitude that you request from candidate to candidate, e.g. nose up or down attitudes, with or without bank, etc. This samples each area of training and confirms that in fact the training is being conducted.

When assessing recoveries from unusual attitudes, you should place the aircraft in the desired attitude and then give control to the candidate stating loudly and clearly "You have control". The aircraft should not be allowed to approach limiting airspeeds before giving control to the candidate. All unusual attitude recoveries should be completed at a height recommended by the manufacturer, or no less than 2,000 feet above ground, whichever is the greater.

Ex. 29 - Emergency Procedures/Malfunctions

If you are not thoroughly familiar with the flight test aircraft, study the Pilot Operating Handbook before asking the candidate to demonstrate the ability to deal with various simulated emergencies or malfunctions.

It is not intended that all possible emergency procedures be assessed with each and every candidate. You will request **two** (2) emergency procedures in the testing of this item. It is entirely at your discretion, whether the flight-test items are tested in the air or on the ground. However, when safety of the aircraft is not affected, the attempt should be made to assess the candidate's ability to perform emergency procedures under realistic conditions. You should use a random sampling system, varying the emergency procedures requested, to prevent 'your' flight test from becoming known to the candidates and to ensure all systems and emergency procedures have been covered in training. Do not compound unrelated emergencies.

One method used by several examiners that is recommended for some of the emergencies is to evaluate them before engine start or after shutdown. The examiner places all ancillary control as they would be in cruise flight then presents a scenario, such as an "Engine Fire in Flight". The candidate is expected to carry out the emergency procedure by actually moving the controls appropriately. Your evaluation of the candidate actually performing the drill is more valid than having the candidate just recite a procedure from memory.

Ex. 30 - Radio Communications

The demonstration of correct radio procedures throughout the whole flight requires you to assess this item when the flight has been completed.

Assessment is to be based upon the candidate's ability to use proper radio procedures, respond to and follow ATC clearances and instructions, to obtain weather information and to communicate flight plan changes and updates. Where necessary, this flight test item can be simulated, when the flight test is not conducted near an ATC facility. If required, you can assess elements of this item on the ground. The use of practical scenarios is an excellent method to let the candidate decide which radio communication services to use.

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PILOT EXAMINER MANUAL

COMMERCIAL PILOT LICENCE

AEROPLANE

This section supplements the flight test guide and expresses more clearly the intent of each flight test item. It will assist you, the examiner, in conducting a valid and thorough flight test and aid in making accurate assessments of the candidate's skill and knowledge.

Ex. 2 - Aeroplane Familiarization and Preparation for Flight

A. Documents and Airworthiness.

Ensure that questions asked are relative to the aircraft being used for the flight test. Emphasize the maintenance release conditions, deferred defects and number of hours remaining before the next maintenance action is due. You can suggest a scenario outlining an unserviceability discovered during flight and ask questions to determine the candidate's knowledge of procedures to follow as a consequence.

B. Aeroplane Performance.

The candidate may use the Pilot Operating Handbook to determine information other than essential performance speeds listed in the flight test guide as memory items.

Record the answers given to questions regarding the best angle of climb speed, best rate of climb speed and manoeuvring speed so that during the flight test the actual speeds flown in the appropriate flight test items may be compared. Questions relating to the Pilot Operating Handbook should be "operational" questions, particularly if the conditions of temperature, wind strength, etc. existing at the time of flight test can be utilized.

The recommended climb and approach to landing airspeeds may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.63 *Climb, General* or section 523.73 *Reference Landing Approach Speed*.

The calculation of 1.3 V_{SO} KIAS for the anticipated landing weight will determine the target speed at 50 feet AGL to be used for the soft-field or short-field landings.

C. Weight and Balance, Loading.

Make this a practical exercise and relate the weight and balance problem to the proposed cross-country flight (Exercise 23A). The loading assigned should require some rearrangement of the load to bring the balance within limits requiring the candidate to correct a situation, where the Centre of Gravity (C of G) is slightly beyond limits. The candidate will be questioned on extreme C of G locations and their effect on aircraft handling and performance.

D. Pre-Flight Inspection.

After the candidate has completed the pre-flight inspection, practical questions relating to the flight test aircraft should be asked. The candidate should be questioned to determine what appropriate action would be taken if an unsatisfactory item were detected during the pre-flight inspection. The verification of fuel and oil levels will be performed in accordance with the manufacturer's recommendations in the POH/AFM. The failure by the candidate to visually confirm that there is sufficient fuel and oil for the actual intended flight is disqualifying (safety issue) and will constitute a failure of the flight test. It is intended that this visual check be an actual check of the tank (or tanks) as opposed to just a check of the fuel gauges. If the aircraft design dictates that visual checks are not possible, fuel chits, fuel logs or other credible means will be acceptable, if in your judgement they meet the confirmation requirement.

The candidate is expected to conduct the oral passenger safety briefing at this time. Should the candidate omit the briefing, you will ask the candidate to provide one. This situation will be assessed as a major error and the final assessment awarded will depend upon the quality and effectiveness of the briefing.

E. Engine Starting and Run-up, Use of Checklists.

Check to see if the candidate uses the checklist provided for the aircraft. If you do not agree with the content of the checklist, the candidate should not be penalized. This would be an item for you to discuss with the CFI of the training unit and, if necessary, the Regional Superintendent - Flight Training. The checks carried out should cover at least the items mentioned in the applicable POH/AFM. The candidate should be questioned to determine what action would be taken if the checks revealed a problem, (e.g. excessive magneto drop, instruments not indicating a change when mixture or carburettor heat controls are selected and/or reset).

Note: A check of flight controls for freedom and the correct movement of the corresponding control surfaces is mandatory and will be conducted before flight. Should the candidate neglect this check, the examiner will ask the candidate to perform it.

F – Operation of Aircraft Systems.

This flight test item is evaluated throughout the flight test. The candidate should demonstrate ability to safely operate the various systems installed on the aircraft and will be questioned orally on three (3) items from the list in the flight test guide. The use of mixture control and carburettor heat, if installed, will be evaluated during the flight. It is advisable to complete the oral portion of this flight test item prior to starting the engine.

Ex. 4 - Taxiing

If significant wind exists, the candidate is expected to correctly use the controls to minimize the risk of an upset. In zero or light wind conditions, while taxiing, ask the candidate to demonstrate control positions under simulated wind strengths and directions. Except when making left and right turns to verify proper functioning of the flight instruments and when other traffic and conditions permit, the candidate is expected to follow the centre-line markings on taxiways where available. Should the candidate omit the flight instrument checks, the examiner will ask the candidate to complete these checks prior to take-off. This will be assessed as a major error and the final assessment awarded will be dependent upon the effectiveness of the instrument check carried out.

Ex. 9 - Steep Turn

You will ask the candidate to execute a steep turn through 180°, with an angle of bank of 45°, then without pause, reverse the turn to roll out on the original heading. You will specify the airspeed to be used for this flight test item. Prior to entering the turn, the candidate will specify the selected altitude and initial heading. A good division of attention between outside references and instrument indications is expected.

Ex. 11 - Slow Flight

One of the objectives of slow flight is to assess the candidate's ability to sense the decrease in wing performance resulting from operations at high angles of attack. Flight at 5 KIAS above the indicated stall speed for the configuration is ideal. The use of power and a reduced weight lower the actual stall speed below the value quoted by the POH, allowing a margin for safety. A small increase in airspeed while turning or in turbulence is acceptable as the stall speed increases in these conditions. Avoid prolonged periods in slow flight to avoid possible overheating of some engine components. The commercial pilot candidate will be asked to execute turns with up to 30 degrees of bank.

Ex. 12 - Stall

Recovery from the stall must be completed at the height recommended by the manufacturer, or no less than 2,000 feet above ground level, whichever is the greater.

To avoid being predictable and to ensure comprehensive training of this exercise, it is recommended that the requested stall differ from candidate to candidate. The stall may be entered from various flight conditions, e.g. slow flight, a climbing or descending turn, or a simulated overshoot from a full flap approach to a landing. Overcorrection, negative loading and excessive nose-down pitch attitudes are unacceptable. Attempts to control wing drop and yaw by using abrupt and full aileron deflection are unacceptable. During power-on stalls, some wing drop is acceptable but adequate control of yaw is expected.

Ex. 13 - Spinning

It is essential that you confirm that the aircraft being used for the test is certified for intentional spinning, that the weight and balance are within the envelope for the utility category and, by questioning, that the candidate understands the spin recovery procedures.

Certain aeroplane types tend to develop a spiral dive instead of remaining in a spin despite full pro-spin control input. Proper (per POH or POH Supplements) spin entry technique and full pro-spin control input which nonetheless result in a spiral dive will be accepted, if the candidate announces “Spiral Dive” and uses the correct recovery for a spiral dive. You should not accept a spiral dive instead of a spin where the candidate did not hold appropriate full pro-spin control input.

Many of the new Aircraft Flight Manuals and Pilot Operating Handbooks indicate a height loss figure for a properly executed one turn spin and recovery. Well-qualified people established these figures and examiners should be aware of this information. Where specified, the examiner may use this figure as a guide in determining the entry altitude and what could be considered excessive altitude loss.

It is important for flight test standardization that this flight test item be conducted in the following manner:

- (a) The candidate must be advised that recovery action is to commence upon command or immediately upon recognizing that the aircraft is no longer spinning and a spiral dive is developing. Give the command to recover when one half to one turn of rotation has been completed.
- (b) Recoveries that result in airspeeds exceeding normal operating airspeeds (Green Arc, V_{no}), but below V_{NE} , are indicative of poor technique and are to be considered as major deviations. Exceeding V_{NE} is disqualifying and will terminate the flight test as the aeroplane requires a special inspection to determine continuing airworthiness.

Ex. 15 - Slipping

During the normal course of a flight test, there may be a number of opportunities to assess the slipping manoeuvre, such as during a forced landing approach or one of the approaches to landing.

Should the candidate not demonstrate the sideslip during some phase of the test, you will request that the candidate demonstrate the use of a forward slip **or** a slipping turn to lose altitude. You should vary your request from candidate to candidate to confirm the status and extent of training actually being given by the FTUs.

Note: Any significant skidding manoeuvre is unacceptable.

Ex. 16 - Takeoff

Both a soft-field takeoff and a short-field takeoff with an obstacle are to be tested. It is recommended that you use a take-off scenario that requires the candidate to decide what procedure to use. Ensure that the simulated runway length and surface conditions of your scenario are clear to the candidate. If the runway is actually short and/or soft, with or without an obstacle, ensure that both you and the candidate agree on the prevailing conditions. While it may not always be possible to assess the candidate's ability to compensate for a crosswind, every effort should be made to assess it. Request a runway other than the one in use or use a nearby airport where a crosswind condition does exist.

Aircraft configuration and airspeeds utilized should be those specified in the Pilot Operating Handbook, taking into consideration existing conditions. The recommended climb speeds may be corrected for actual weights as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.63 *Climb, General*.

Prior to take-off, in the interest of better cockpit co-ordination, the candidate will complete a crew briefing with the examiner on the intended departure procedure, takeoff considerations and procedures to be used in the event of an actual engine failure during the takeoff and initial climb. The crew briefing is not part of the take-off evaluation but is essential for safety in the event of an actual emergency.

Ex. 17 - Circuit

This item will be assessed throughout the flight test and a mark awarded only after the final landing. This will ensure that the candidate is assessed on the departure and entry procedures as well as a complete circuit after a take-off leading to a landing. If the test is conducted from an uncontrolled airport the candidates should be questioned, or given simulated ATC clearances and instructions to assess their knowledge. If the test is conducted from a controlled airport, question the candidate's knowledge of circuit procedures for uncontrolled airports. If possible, it is recommended that both controlled and uncontrolled airports be used during the test, if they are conveniently available. Touch and go takeoffs and landings are not recommended during the flight test.

Ex. 18 - Approach and Landing

As indicated in exercise 16, ensure that any simulated conditions clearly indicate to the candidate the type of landing to be used.

Make every effort to utilize a runway where a crosswind condition exists in order to assess the candidate's ability in this area. If you are at a busy airport, it may be possible to go to a nearby airport to carry out crosswind landings or the power-off 180° accuracy approach and landing.

The power-off 180° accuracy approach and landing is not an emergency exercise, but a manoeuvre that measures skill in precision flying. The power-off 180° accuracy approach and landing will be initiated from normal circuit height or at the height assigned by ATC. It is preferred that the candidate close the throttle and initiate the glide on the downwind leg abeam the specified touchdown point; but if traffic does not permit, the gliding descent from circuit height may be delayed until later in the circuit. The candidate will close the throttle and establish a gliding approach from circuit height that will result in a landing having a degree of accuracy. One engine clearing may be allowed before descending through 500 feet AGL. In very cold weather conditions, the practice of leaving some power on and achieving a normal gliding descent angle and airspeed by using flap is acceptable, but no further engine clearing should be allowed.

For the short or soft-field landings, the candidate should maintain an approach profile that will result in airspeed at 50 feet AGL of 1.3 V_{so} KIAS, corrected for the predicted landing weight as depicted in available POH/AFM performance charts or tables or, in their absence, in accordance with *Airworthiness Manual* Chapter 523 section 523.73 *Reference Landing Approach Speed, or a minimum safe speed for existing conditions*. It is not expected that 1.3 V_{so} be held from 1 or 2 miles final.

If the wind conditions dictate speeds greater than 1.3 V_{so} (adjusted for weight), or thermal lift is encountered over the runway, some aeroplane types may exhibit a tendency to float in ground effect. In these cases, the candidate should not be assessed “Below Standard” for exceeding the touch-down distance tolerance in the criterion, up to a maximum of double the specified distance tolerance, if correct and timely approach and landing techniques are used. Should the candidate realize prior to commencing the flare, that the short-field landing in the intended touchdown zone cannot be achieved, an overshoot for a second attempt is acceptable, but not ideal (3 or less).

In assessing the candidate's ability to land within a pre-determined touchdown zone, it is not intended that examiners turn this item into a spot landing exercise; rather the candidate's ability to land within a specified portion of the runway is to be assessed. The main aim of the item is to determine that correct procedures and techniques are used in addition to achieving some accuracy.

The overshoot (18C) should **not** be requested in conjunction with the power-off 180° accuracy approach and landing, unless required to maintain safety of flight, but should be assessed from the other landing approaches, the forced landing approach or the precautionary landing approach.

Ex. 21 - Precautionary Landing

It is expected that a CPL candidate will conduct this item in an efficient, effective and timely manner.

Be specific when outlining any simulated conditions that require a precautionary landing. If the scenario is based on weather conditions, then these conditions (i.e. ceiling, visibility, etc.) and their trends should be specified and remain constant during the procedure.

The aim of the item is to carry out the procedures for a safe landing in a suitable area. Provided that the procedure used is organized, logical and the aircraft configuration is as recommended in the Pilot Operating Handbook, you should not be adversely influenced by a procedure that varies from your own. When a suitable aerodrome is available, candidates should be asked to demonstrate a short or soft field landing (Exercise 18) in order to evaluate them on this item, along with the precautionary approach.

Should the inspected site not be suitable to complete a landing, you should let the candidate know that you will request a demonstration of the type of landing that would have been appropriate, on return to base.

Ex. 22 - Forced Landing

The forced landing item is not only about gliding to a point, it is also about managing an emergency situation, making correct decisions and following prescribed procedures that lead to a successful approach and landing.

The engine failure will be simulated in accordance with the method recommended by the manufacturer. When possible, engine failure should be simulated from approx. 3,000 feet AGL with no advanced warning. However, you should ensure that some suitable landing areas are available within the field of vision of the candidate and within gliding range of the aircraft. Provided the aim of the exercise is accomplished in an organized manner, you should not be adversely influenced if the procedure used varies from your own preferred procedure. In all cases, advise the candidates of the emergency by stating “simulated engine failure”.

As this is a simulated procedure, the candidate will be expected to demonstrate good airmanship by clearing the engine at appropriate intervals during the descent. The practice of leaving some power on and achieving a normal descent angle and airspeed by using flap is acceptable in very cold conditions. You should determine how the candidate plans to execute this item during the pre-flight briefing.

Occasionally a candidate will, after commencing the forced landing, indicate a preference for another landing area. Normally a change of intended landing area during the approach is not acceptable, as one of the main competencies the examiner is required to assess during this exercise is the candidate's ability to fly an approach to a pre-selected landing area.

A change of field is acceptable from an altitude and a point in the approach where a landing could still have been made on the original landing site.

You will evaluate the candidate's ability to safely handle this emergency through 2 separate flight test items, namely **22A.Control/Approach**, where you assess the actual hands-on flying skills and the ability to 'make the field'. In **22B.Cockpit Management**, the candidate must demonstrate good airmanship and complete basic safety checks.

Ex. 23 - Pilot Navigation

A. Pre-flight Planning Procedures.

Cross-country flights for the CPL flight test are not assigned prior to the day of the flight test. On the day of the flight test (preferably less than two hours before the test), assign a cross-country route that will promote decision-making. For example, choose a destination that is beyond the fuel range of the aeroplane, as loaded, or one where fuel is not available for the return flight, therefore requiring an intermediate fuel-stop. When assigning the cross-country routing, examiners should try to select a destination that will provide the candidate with suitable terrain and sufficient enroute checkpoints and avoid using a route that would parallel a major waterway or shoreline.

Preparation should be completed within 45 minutes (More than doubling the 45-minute period is unacceptable), unless the candidate encounters delays in obtaining weather or other necessary information. The candidate's completed calculations should be verified for accuracy.

B. Departure Procedure.

Assessment will be based on the candidate's demonstrated ability to carry out an appropriate and efficient departure procedure. If, due to operational requirements beyond the control of the candidate such as vectors from ATC, the candidate is unable fly a pre-determined departure procedure, assessment should be based on the ability to adapt to the new circumstances.

C. En Route Procedure

Where a routing has very few landmarks, additional time may be allowed for the candidate to determine if there is a track error. A better choice of routing, where available, would help prevent the need for additional time.

D. Diversion to an Alternate

The aim of this item is to evaluate the candidate's ability to divert using mental dead-reckoning skills. When you ask for a diversion after a series of other flight test manoeuvres, allow enough time for the candidate to determine the exact location and orientation and for the candidate to arrange the chart. Only then should you request the diversion.

The diversion should be carried out at 500 feet AGL or a minimum safe altitude. When it is feasible to test the diversion at low level, you must consider the following:

- (a) regulations, built up areas etc;
- (b) safety considerations;
- (c) suitability of the area, altitude, obstructions;
- (d) annoyance to people or livestock.

Do not set up the candidate for a possible contravention of the regulations. The selected destination should not require the candidate to over-fly populated areas en route.

Although the route may have to circumnavigate high terrain, where it exists, a practical demonstration of mental dead-reckoning skills is required on this CPL flight test. This is an evaluation of the candidate's ability to navigate over barren terrain without major landmarks. Rulers, notched pencils, protractors, computers and radio navigational aids will not be used for this procedure. The candidate may change altitudes to suit the topography and will declare intentional changes of altitude to the examiner.

With respect to the estimated time of arrival and the actual time of arrival at the alternate, no hard numbers have been established as criteria. Examiners may accept an estimated time of arrival for this item that is reasonable and indicates that the diversion could be conducted as planned.

The practice of following a geographical feature towards an alternate destination is reserved for the Private Pilot Licence flight test and not allowed on the Commercial Pilot flight test.

Ex. 24 - Instrument Flying and Use of Radio Navigation Aids

Both the flight test guide and flight test report place exercise 24 - Instrument Flying as nearly the last flight test item. This is not intended to give you the impression that instrument flying must come at the conclusion of the test. Examiners who have completed this item right after the en route portion of the navigation item have indicated better results, due to the candidate being comparatively more alert and better able to concentrate on instrument flying. The possible effect on the instruments from such items as spinning and spiral dives is another reason why many examiners complete this item early in the flight test.

24A. Full Panel

After donning a view-limiting device, the candidate should be allowed enough time to settle down in straight and level flight, before asking for any specific manoeuvres. The required full panel manoeuvres should be conducted before requesting limited panel work.

24B. Limited Panel

Remember that one heading correction is permitted. During the rate-one turn, the angle of bank may be different than prescribed by the rule-of-thumb of 10% of the airspeed + 7, if in knots. This is only accurate at a speed of 140 KTAS. A more accurate general rule-of-thumb is to use an angle of bank equivalent to 15% of your KTAS.

24C. Recovery from Unusual Attitudes

Only **one** unusual attitude recovery is required and is performed using limited panel.

You should vary the type of unusual attitude that you request from candidate to candidate, e.g. nose up or down attitudes, with or without bank, etc. This samples each area of the training and confirms that in fact the training is being conducted.

When assessing recoveries from unusual attitudes, you should place the aircraft in the desired attitude and then give control to the candidate stating loudly and clearly "You have control". The aircraft should not be allowed to approach limiting airspeeds before giving control to the candidate. All unusual attitude recoveries should be completed at a height recommended by the manufacturer, or no less than 2,000 feet above ground, whichever is the greater.

24D. - Radio Navigation

This item is to be conducted without a view-limiting device. It is the responsibility of the candidate to provide an aircraft equipped with serviceable navigation equipment. The candidate may choose to use **VOR, ADF or GPS** radio navigation equipment. When evaluating radio navigation with a GPS unit, have the candidate select the terminal mode with 1.0 NM course deviation sensitivity.

Ex. 29 - Emergency Procedures/Malfunctions

If you are not thoroughly familiar with the flight test aircraft, study the Pilot Operating Handbook before asking the candidate to demonstrate the ability to deal with various simulated emergencies.

You will request **three** (3) emergency procedures in testing this item. The three emergencies will be evaluated separately. Do not compound unrelated emergencies or malfunctions. You should use a random sampling system, varying the emergency procedures requested, to prevent ‘your’ flight test from becoming known to the candidates and to ensure all systems and emergency procedures have been covered in training.

It is entirely at your discretion, whether the flight-test items are tested in the air or on the ground. However, when safety of the aircraft is not affected, the attempt should be made to assess the candidate’s ability to perform emergency procedures under realistic conditions.

One method used by several examiners that is recommended for some of the emergencies is to evaluate them before engine start or after shutdown. The examiner places all ancillary controls as they would be in cruise flight then presents a scenario, such as an “Engine Fire in Flight”. The candidate is expected to carry out the emergency procedure by actually moving the controls appropriately and then follow-up with the applicable checklist. Your evaluation of the candidate actually performing the drill is more valid than having the candidate just recite a procedure from memory.

Ex. 30 - Radio Communications

The demonstration of correct radio procedures throughout the whole flight requires you to assess this item when the flight has been completed.

Assessment is to be based upon the candidate’s ability to use proper radio procedures, respond to and follow ATC clearances and instructions, to obtain weather information and to communicate flight plan changes and updates. Where necessary, this flight test item can be simulated when the flight test is not conducted near an ATC facility. If required, you can assess elements of this item on the ground. The use of practical scenarios is an excellent method to let the candidate decide which radio communication services to use.

PILOT EXAMINER MANUAL PRIVATE AND COMMERCIAL HELICOPTER

The following comments and information are offered to assist the examiner to conduct a thorough flight test. These suggestions will aid in making accurate assessments of the candidate's skill and knowledge.

Ex. 2 - Preparation for Flight

A. Documents - Airworthiness.

Ensure that questions asked are relative to the helicopter being used for the flight test.

B. Helicopter Performance.

The candidate may use the Flight Manual to determine information other than essential performance speeds listed in the flight test guide as memory items.

Record the answers given to questions regarding performance speeds so that, during the flight test, the actual speeds flown in the appropriate items may be compared. Keep questions relating to the Flight Manual operational, particularly if the conditions of temperature, wind strength, etc. existing at the time of flight test can be utilized.

C. Weight and Balance, Loading.

Make this a practical exercise and relate the weight and balance problem to the proposed cross-country flight (Exercise 20). Remember that the time required computing the weight and balance is not normally part of the 45-minute time limit allowed in Exercise 20.

The candidate should also be asked to correct an out of C of G situation, and questioned to determine understanding of extreme C of G locations and the resulting effect on helicopter handling/performance.

Should there be any doubt in the examiner's mind with regard to the completed weight and balance form presented by a candidate, the examiner should determine the level of knowledge by thorough questioning in this area.

D. Pre-flight Inspection.

It is suggested that after the candidate has completed the pre-flight check, a few questions should be asked relating to the helicopter used for the flight test. The effect of the air filter being blocked, its location, etc. are examples. Determine if the candidate knows the function of all intakes, screens, filters, etc. The candidate should be questioned with regard to the appropriate action to be taken if an unsatisfactory item is detected during the pre-flight inspection.

The failure by the candidate to visually confirm that there is sufficient fuel and oil for the intended flight is disqualifying and will constitute a failure of the flight test. It is intended that the visual fuel check be an actual check of the tank (or tanks) as opposed to just a check of the fuel gauges. If the helicopter design dictates that visual checks are not practicable, the examiner may accept fuel chits, fuel logs, etc., which in the examiner's judgement meet the confirmation requirements.

The candidate is expected to conduct an oral passenger safety briefing at this time. Should the candidate omit the briefing, the examiner will ask the candidate to provide one. This situation will be assessed as a major error and the final assessment awarded will depend upon the quality and effectiveness of the briefing.

E. Engine Start/Run-up - Use of Check Lists.

Check to see if the candidate uses the checklist provided in the helicopter. If the examiner does not agree with the content of the checklist, the candidate should not be penalized. This would be an item for the examiner to discuss with the training unit or establishment, and if necessary the Regional Flight Training Section. The check carried out by a candidate should cover at least the items mentioned in the appropriate Flight Manual. The candidate should be questioned at this time to determine what action would be taken if the checks revealed a problem (e.g. excessive magneto-drop, instruments not indicating when anti-ice or carburetor heat controls are selected and/or reset).

Note: A check of flight controls for freedom and the correct movement of the corresponding rotor blades is mandatory and will be conducted before flight. Should the candidate neglect this check, the examiner will ask the candidate to perform it.

Ex. 3 - Ancillary Controls/Aircraft Systems

The candidate should show adequate knowledge of the use of systems and ancillary controls fitted to the flight test helicopter. The candidate should be questioned on 2 (PPL) or 3 (CPL) systems fitted on the aircraft.

Ex. 9 - Take-off to and Landing from the Hover, Hover Check

The candidate should demonstrate accuracy in maintaining position, heading and RPM during the take-offs and landings from hover. The examiner should request into and out of wind demonstrations using scenarios, whenever possible. In the hover, verify the candidate checks the control response, position of the cyclic, temperatures, pressures, warning lights, and the power required to hover by cross checking each item

Failure to carry out a hover check will result in a fail assessment of this item.

Ex. 10 - Hover, Hover Taxi and Hovering Turns

In addition to into wind exercises, the candidate should be asked to hover and hover taxi crosswind and downwind when conditions allow. Hovering turns can be assessed when performing clearing turns in other items such as the circuit.

Ex. 11 - Engine Failure at the Hover or Hover taxi

It is important to use a suitable landing area, for example a runway, or smooth grass surface. If you are not familiar with the site, it is strongly recommended to test it's surface prior to the engine failure, by landing on it.

Ex. 12 - Transitions

Transitions are to be tested as part of other items; the candidate should pay particular attention to the Height/Velocity chart.

Ex. 14 - Emergencies

Two (2) emergencies will be evaluated for the PPL (H) and three (3) for the CPL (H), of which a minimum of one will be conducted while airborne.

Examiners should use a random sampling system. Varying the procedures requested will prevent the examiner's flight test from becoming known to the candidate. The examiner must be careful when simulating an emergency or abnormal flight situation that a suitable landing area is available, if required, to carry out a prompt precautionary landing. On closer inspection if the site is found to be unacceptable, the candidate will be expected to use good judgement to recover to either a hover or overshoot to a climb.

If the flight test helicopter is equipped with a hydraulic system, the candidate will be expected to land safely following a system failure. This simulation should be done towards the end of the test on return to the aerodrome on the base or final leg of the circuit.

Note: A landing following a simulated in-flight emergency will only be carried out on known suitable landing surfaces.

Ex. 15 - The Circuit

This item must be assessed on a continuing basis throughout the flight test and a mark awarded only after the final landing. This will ensure that the candidate is assessed on the departure and entry procedures as well as a complete circuit after take-off leading to a landing.

Examiners are expected to familiarize themselves with the type of circuit, speeds, heights, and power settings the school uses in training.

Whenever possible, use both controlled and uncontrolled aerodromes during the test. The candidate should be questioned on controlled aerodrome procedures or given simulated ATC clearances and instructions when the test is entirely conducted at uncontrolled aerodromes. Conversely, the candidate's knowledge of uncontrolled aerodromes should be ascertained when the test is entirely conducted at controlled aerodromes.

Ex. 16 - Sideways and Rearward Flight

The examiner must confirm the candidate's lookout particularly in a confined area or an area of sloping ground. A busy ramp is a good area to assess this item.

Ex. 17 - Steep Turn

As the candidate is assessed on airspeed, altitude, angle of bank and recovery heading, your request must be specific in all four areas, to avoid confusion. The examiner will be required to exercise good judgement and care in the selection of the geographic point. It should be narrow, prominent and clearly visible and not of such broad expanse that the aim of the item cannot be realistically achieved (e.g. "roll out within 10° of Lake Superior"). You must ensure that the candidate has the same reference point in mind, in order to avoid confusion when assessing the recovery.

A good time to test this item is before or after the diversion in Exercise 20.

Ex. 18 - Autorotations

The engine failure will be simulated in accordance with the manufacturer's flight manual, the technique will be agreed upon in the flight test briefing.

Engine failure should be simulated from a minimum of 1,500 feet above ground, but can be lower, without advance warning from the examiner. The engine failure at altitude is usually assessed after the navigation item, but can be tested anywhere in the flight test. Examiners should vary where they assess this item so as not to become predictable when testing. The examiner must ensure that a landing area exists within the candidate's field of vision and within autorotational range of the helicopter.

The candidate is expected to show good control of RPM and airspeed in the autorotational descent especially when employing range variation techniques.

Before the candidate is allowed to demonstrate full-on autorotations, the examiner must select a safe landing area. Most schools have cleared areas at their own heliport or at a nearby airport, such as the threshold of an inactive runway, where they practice this exercise. It is the responsibility of the examiner to be aware of any special areas and the rules the school employs for full-on autorotation. It is also the responsibility of the examiner to be current on the type of helicopter being used on the flight test, including emergency procedures and full-on autorotations.

The types of autorotation tested are at the discretion of the examiner, usually one straight in and one with a 180 degree turn, and will be initiated from cruise at a safe height but in no instance less than 500 feet AGL. The approaches will terminate at the discretion of the examiner, in either a landing or a power recovery. The examiner must be specific when briefing the candidate and must inform the candidate early enough in the approach to accomplish a power recovery if required.

Ex. 20 - Pilot Navigation

A. Pre-Flight Planning.

When assigning the cross-country route, try to select a destination that will provide the candidate with suitable terrain and sufficient enroute checkpoints. Normally the route should be in a direction that will enable the candidate to use a suitable set heading procedure. When the candidate has completed calculations, these should be verified for accuracy.

Unless the candidate encounters delays obtaining weather or other necessary information, preparation, excluding weight and balance computations, should be completed within 45 minutes. If the cross-country flight is assigned in advance, the candidate may make preliminary preparations such as initial route selection, map preparation, determination of headings, selection of possible alternates and initial flight log entries prior to the flight test. In this case, the candidate should, after obtaining weather information, complete all final preparation, including weight and balance computations, within 45 minutes.

B. Departure Procedures.

The candidate will be assessed on his ability to manoeuvre the helicopter to set heading over a pre-selected point. If due to operational requirements, such as vectors from ATC, the candidate is unable to start from over the pre-selected set heading point, assessment should be based on the ability to adapt to the new circumstances and the manner that the departure procedure is altered.

C. Enroute Procedures.

While proper selection of an assigned route should prevent this situation, the candidate should be allowed more time after set heading to determine a track error, when suitable check points are sparse.

The candidate will inform the examiner of any information relevant to the exercise such as compass headings, departure time, new compass headings, groundspeed checks, time over checkpoints and revised ETA. These can be entered on a navigation log.

D. Divert to an Alternate.

The diversion should be carried out at 500 feet AGL or a minimum safe altitude, whichever is higher. The selected destination should not require the candidate to over-fly populated areas enroute. Remember this is not a test of pure navigational skills but is an assessment of ability to proceed to an alternate using mental dead reckoning and natural geographic features, roads, railway etc., if they are available. Rules, protractors, navigational aids and computers will not be used for this procedure.

With respect to the estimated time of arrival and the actual time of arrival at the alternate, no hard numbers have been established in the criteria. Examiners may accept an estimated time of arrival for this item that is reasonable, and which would ensure that the diversion could be conducted as planned.

Ex. 22 - Minimum Safe Altitude Operations - Tested in Conjunction with Exercise 20(D)

This item will be assessed in the diversion portion of Exercise 20 and at any time, the candidate is required to fly low-level. The candidate is expected to demonstrate good judgement when encountering livestock, built-up areas, wires, lakes or rising ground while flying at low altitudes. Examiners should choose routes that avoid these circumstances. The candidate must stay out of the caution areas of the Height/Velocity curve chart.

Ex. 23 - Sloping Ground Operations

The examiner will consider all factors when selecting a landing site, especially the wind. This item can be tested in conjunction with the confined areas item, or any other item that requires landing on a doubtful surface. Particular attention must be paid to the tail rotor to ensure that it is kept clear of the slope and any obstacles.

Ex. 24 - Advanced Take-Offs and Landings

The examiner will assess this item during the confined areas item, except for a no-hover or cushion take-off, and a no-hover landing, which should be tested in the circuit work.

You should not request a specific take-off or landing but rather use a scenario that lets the candidate decide the appropriate procedure to use. You must ensure that the conditions described in the scenario are clear to the candidate. For example, you should describe surface conditions that will lead the candidate to choose a no-hover take-off, if that is what you want the candidate to demonstrate.

Ex. 25 - Confined Areas

When selecting a confined area, examiners must choose a site that demands careful appraisal from the candidate and not one that is either very small or very large. The objective is to determine the candidate's ability to carry out safe and efficient confined area operations; it is not to assess how small an area a candidate can operate in. The size of the site should be large enough for the type of aircraft, considering all factors. Nevertheless, the examiner will choose an alternate field if the candidate has doubts about the validity of the site.

It is not uncommon for an examiner to describe a specific confined area that is understood by the candidate to be a different one. Examiners have to be very clear to ensure that their candidates are looking at the same site that they are describing. To avoid confusion, you could ask the candidate to describe back to you the confined area you have chosen.

Whenever possible, the approach should terminate in a hover over the proposed landing spot. Examiners should set realistic scenarios to assess sideways, backwards, slope landings and advanced take-off and landings.

The type of departure should be scenario-based. The candidate must carry out a power check as part of the hover check. The examiner should let the candidate know early in the departure of a decision to abort.

Provided the aim of the item is accomplished in an organized manner, examiners should not be adversely influenced if the procedure used has slight variations from their preferred technique.

Ex. 30 - Instrument Flying

After donning a view-limiting device, the candidate should be allowed enough time to settle down in straight and level flight, before asking for any specific manoeuvres. The required full panel manoeuvres should be conducted before requesting limited panel work.

When assessing recovery from the unusual attitude, the examiner should place the helicopter in the desired attitude and then give control to the candidate stating loudly and clearly "you have control". One nose up or one nose down attitude with or without bank will be demonstrated, using full panel for private pilot candidates and using limited panel for commercial pilot candidates. Unusual attitude recoveries should be completed at a height that will ensure ample ground clearance for the recovery.

The flight test guide and the flight test report place Exercise 30, Instrument Flying, as nearly the last flight test item in both documents. This is not intended to give examiners the impression that instrument flying must come at the conclusion of the test.

Examiners should consider this item in their pre-planning of the flight test and occasionally complete this item early in the test. Examiners who have completed this item right after the en route portion of the cross-country have indicated better results due to the candidate being more alert and thus better able to concentrate on instrument flying.

Ex. 31 - Radio Communications

Assessment of correct radio procedure should be made throughout the flight test. This item can be simulated quite easily if the school is not near an ATC facility, and the examiner can assess much of this item on the ground, if required. Again using a practical scenario is an excellent method to let the candidate make the decision as to which radio communication services to employ.

PILOT EXAMINER MANUAL

MULTI-ENGINE - AEROPLANE

Ex. 1 - Aeroplane Familiarization and Preparation for Flight

A. Documents and Airworthiness.

Ensure that questions asked are relative to the aeroplane being used for the flight test. Emphasize the maintenance release conditions, deferred defects and number of hours remaining before the next maintenance action is due.

B. Performance and Limitations.

The candidate may use the Pilot Operating Handbook (POH) or Aircraft Flight Manual (AFM) to determine information **other** than the essential performance speeds listed in the flight test guide as memory items. Questions relating to the POH/AFM should be “operational” questions, particularly if temperature, wind strength, etc. existing at the time of the flight test can be utilized.

The NOTE in the flight test guide under ‘Definitions’ (Page 5) refers to how Vmc is generally determined for certification purposes. It is meant for examiners and candidates. The statement...“the aeroplane is at a minimum practical test weight with a rearmost centre of gravity” comes from Advisory Circular 23-8B that explains the procedures for the conduct of certification tests under AWM 523.149 (FAR 23.149).

You will find that in reference to "Weight and C.G." the circular reads as follows:

(4) *Weight and C.G.* For rudder limited airplanes with constant aft c.g. limits, the critical loading for VMC testing is most aft c.g. and minimum weight. Aft c.g. provides the shortest moment arm relative to the rudder thus the least restoring moments with regard to 63AC 23-8B 8/14/03, maintaining directional control. VMC should be determined at the most adverse weight. Minimum practical test weight is usually the most critical because the beneficial effect of banking into the operating engine is minimized. Light weight is also desirable for VMC testing because the stall speed is reduced.

In this reference, it is advised that the aeroplane be loaded with the minimum practical loading that will bring the centre of gravity to the aft limit. At the aft limit, the vertical control surfaces will have the shortest possible moment arm for directional control as the aeroplane will yaw around it's centre of gravity. The minimum practical weight allows determination of Vmc with minimum interference from the effects of wing stall because at lighter weights the stalling speed is slower.

At maximum take-off weight, only the use of bank toward the operating engine will reduce the actual Vmc. In some cases, such as the Piper Seminole, the aeroplane would likely stall before reaching the published Vmc if it were close to the maximum take-off weight.

C. Principles of Flight – One Engine Inoperative

As there is no written examination for this rating, this flight test item will let you assess the candidate's practical knowledge of the challenges of a power loss on the critical engine and the resulting performance degradation, the particular challenges of asymmetric thrust and various drag profiles.

D. Weight and Balance, Loading.

Make this a practical exercise using actual weights. Ask questions to determine the candidate's knowledge of various weight limitations such as maximum landing weight and zero fuel weight, if applicable. Determine the candidate's understanding of extreme C of G locations and the resulting effect on aircraft handling and performance.

E. Pre-Flight Inspection.

After the candidate has completed the pre-flight inspection of the aircraft, questions relating to the flight test aeroplane should be asked. Determine if the candidate knows the function of all intakes, screens, filters, etc. Examples: The effects of the carburetor intake filter or induction air intake filter being blocked, their locations, or a broken spring on a landing gear downlock, etc. The candidate should be questioned to determine what appropriate action should be taken if an unsatisfactory item is detected during the pre-flight inspection.

The failure by the applicant to visually confirm that there is sufficient fuel for the intended flight is disqualifying and will constitute a failure of the flight test. It is intended that this visual check be an actual check of the tank (or tanks) as opposed to just a check of the fuel gauges. If the aircraft design dictates that visual checks are not possible, fuel chits, fuel logs or other credible means, which in your judgment meet the confirmation requirement, will be acceptable.

The candidate will conduct an oral passenger safety briefing. If the candidate omits the passenger safety briefing, the examiner will ask the candidate to provide a briefing. This situation will be assessed as a major deviation and the final assessment awarded will depend upon the quality and effectiveness of the briefing.

F. Engine Starting and Run-up, Use of Checklists.

Check to see if the candidate uses the checklist provided for the aircraft. If you do not agree with the content of the checklist, the candidate should not be penalized. This would be an item for you to discuss with the CFI of the training unit and, if necessary, the Regional Superintendent - Flight Training. The checks carried out should cover at least the items mentioned in the applicable POH/AFM. The candidate should be questioned to determine what action would be taken if the checks revealed a problem, (e.g. excessive magneto drop, instruments not indicating a change when mixture or carburettor heat controls, etc. are selected and/or reset).

Ex. 2 - Ancillary Controls/Operation of Aircraft Systems

This flight test item is evaluated throughout the flight test. The candidate should demonstrate the ability to safely operate the various systems installed on the aircraft and will be questioned orally on any three items from the list in the flight test guide. The use of mixture control and carburettor heat, if installed, should be examined during the flight. The use of the mixture control to smooth out a rough running engine following the application and removal of carburettor heat in flight should be assessed, if such conditions exist, or be examined by questioning. It is advisable to complete the oral portion of this flight test item prior to engine start.

Ex. 3 - Taxiing

In significant winds, the candidate is expected to correctly use the controls to minimize the risk of an upset. Except when making left and right turns to verify proper functioning of the flight instruments and when other traffic and conditions permit, the candidate is expected to follow the centre-line markings on taxiways where available. Should the candidate omit the flight instrument checks, the examiner will ask the candidate to complete these checks prior to take-off. This will be assessed as a major error and the final assessment awarded will be dependent upon the effectiveness of the instrument check carried out.

Ex. 4 - Take-off, Circuit and Landing

Prior to take-off, in the interest of better cockpit co-ordination, the candidate will complete a crew briefing with the examiner on the intended departure procedure, takeoff considerations and procedures to be used in the event of an actual engine failure during takeoff and initial climb. The crew briefing is not part of the takeoff evaluation but essential to safety in the event of an actual emergency.

While it may not be possible to assess the candidate's ability to compensate for a crosswind, every effort should be made to carry out this procedure. It may be necessary to request a runway other than the one in use or it may be possible to use a nearby airport where a crosswind does exist.

Touch and go takeoffs and landings are not recommended during the flight test. Many flight training units operate from airports with runways of insufficient length to permit touch and go landings and take-offs to be practiced safely and candidates may never have done these during training. They also increase the risk of an inadvertent gear up selection while retracting flaps and resetting the trim.

Ex. 5 - Cruising Flight

Since there is no cross-country item included in this flight test, this is the only opportunity for the candidate to demonstrate the ability to set the power controls and configure the aircraft properly for cruise flight.

The examiner must be familiar with the cruise procedures outlined in the POH/AFM. In addition to providing specific power settings and correction factors for non-standard atmospheric conditions, the manufacturer may make recommendations concerning aeroplane configuration such as the position of cowl flaps, the selection of fuel tanks and the use of various systems such as de-icing, cabin pressurization systems, etc.

Ex. 6 - Engine Failure (Cruise Flight) and Manoeuvring with One Engine Inoperative

When considering a safe altitude for the conduct of this item, the examiner should take into account the safe height above ground and the single-engine service ceiling for the aircraft in question. If the engine failure was simulated during a turn, the candidate is expected to continue the turn to the assigned heading, allowing only a brief pause in the turn to gain control of the aeroplane.

Ex. 7 - Manoeuvring at Reduced Airspeed

Use a speed that corresponds to 1.3 V_{SO} at gross weight or $V_{MC}+10$ knots, whichever is greater.

While this item is to be conducted at a SAFE ALTITUDE, the intent is to assess the candidate's ability to manoeuvre the aeroplane and extend gear and flaps while maintaining airspeed in the approach speed range. Acceptable performance of this item would be important when executing a circling approach at MDA during an IFR flight.

Ex. 8A & B – Stall, Approach to Stall

All practice stall recoveries will be completed no lower than the height recommended by the manufacturer or 2,000 feet AGL, whichever is the higher. You must be aware of the manufacturer's recommendation for the type of aeroplane being used for the flight test.

Particular attention should be paid to the sequence used for the retraction of the landing gear and flaps, if specified in the POH/AFM.

Ex. 8A requires the candidate to enter an actual stall in a clean configuration and then promptly and smoothly recover using control application in the proper sequence as well as appropriate attitude and directional control. Where the POH/AFM states that intentional stalls should be avoided or are prohibited, the candidate is expected to recover at the first indication of an imminent stall.

Ex. 8B requires the candidate to approach a stall in the full flap landing configuration and then promptly and smoothly recover at the first indication of an imminent stall, using control application in the proper sequence and appropriate attitude and directional control.

Ex. 9 - Steep Turn

Ensure that the candidate has clearly stated the altitude and initial heading to be used and understands how the manoeuvre is to be flown (45° angle of bank, 180° turn with a reversal to the initial heading). You will specify the airspeed to be maintained for the manoeuvre. A good division of attention between outside references and instrument indications is expected.

Ex. 10 - Engine Failure During Takeoff or Overshoot

This item is to be conducted at a SAFE ALTITUDE. Ensure that the altitude selected to simulate the airport elevation is sufficiently high above ground level to provide a margin of safety and at the same time permit adequate climb performance.

The most important aspect of this item is assessment of the candidate's ability to maintain safe flight control, carry out correct emergency procedures and aeroplane handling and, if the aeroplane is capable, establish a climb following the simulated failure of an engine.

Ex. 11A – Intentional Engine Shutdown

Present a scenario that convinces the candidate to intentionally shut down one engine. The candidate should then proceed with the appropriate checklist and simulate an intentional engine shutdown in flight. The subsequent course of action should reflect the candidate's decision-making as a result of the unforeseen failure. If the aerodrome for the next item (11B) is a considerable distance away, you may restore cruise power and then simulate zero-thrust for the arrival, approach and single-engine landing, when you are closer to the field.

Ex. 11B - Arrival, Approach and Landing – One Engine Inoperative

Prior to conducting this item, ensure that the candidate is briefed on engine-handling procedures in the event of an unexpected overshoot. Should it become necessary to overshoot, it is expected that the candidate will use both engines and that no other simulated emergency will exist until after the overshoot has been completed.

Ex. 12 – Emergency Procedures/Malfunctions

If you are not thoroughly familiar with the flight test aircraft, study the POH/AFM before asking the candidate to demonstrate the ability to deal with various simulated emergencies.

You will request **three (3)** emergency procedures in the testing of this item. It is recommended that at least one emergency/malfunction be simulated in flight. Examiners should not request multiple unrelated emergencies at the same time. Candidates should be aware of the “domino effect” of certain failures.

It is entirely at your discretion, whether the flight-test items are tested in the air or on the ground. However, when safety of the aircraft is not affected, the attempt should be made to assess the candidate's ability to perform emergency procedures under realistic conditions. You should use a random sampling system, varying the emergency procedures requested, to prevent ‘your’ flight test from becoming known to the candidates and to ensure all systems and emergency procedures have been covered in training.

PILOT EXAMINER MANUAL

INSTRUMENT RATING

The following comments and information are offered to assist you to conduct a thorough, valid and fair flight test. These suggestions will aid in making accurate assessments of the candidate's skill and knowledge.

All flight tests will be conducted at your discretion with respect to your knowledge of local conditions, 'Air Traffic Services' requirements and facilities. Whenever possible, flight tests 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 valid and greatly reduces the possibility of a faulty or poorly worded simulated clearance. Faulty clearances issued by examiners have been the cause of conflicts and disputes when the results were assessed as "fail". Some failures have been successfully appealed.

IMC/VMC

You will determine the suitable weather limits for the flight test. However, flight schools or operators may impose additional restrictions, limiting operation to specific weather conditions. (see CAR 605.30)

It is recommended that, when a candidate proposes to do a GPS approach using a type of installed equipment with which you are unfamiliar, the flight test be conducted in VMC conditions.

The aircraft must be adequately equipped to operate in icing conditions when such conditions are reported to exist or forecast to be encountered along the route of flight. The aircraft must be equipped in accordance with the standards of airworthiness under which the type certificate for that aircraft was issued in addition to meeting the requirements of CAR 602.07– *Aircraft Operating Limitations* for the intended type of operation (VFR/IFR). Some aircraft appear to be adequately equipped for this type of operation, however, the information required to prove this may not be readily available to you, the examiner. Care must be exercised in making this determination.

Helicopter operations in accordance with *Instrument Flight Rules* (IFR) are only allowed in helicopters meeting the requirements of CAR 602.07– *Aircraft Operating Limitations*. These helicopters are generally complex multi-crew, multi-engine aircraft that are not operationally practical or financially feasible for instrument rating training and testing. The likelihood of a newly endorsed pilot departing into IMC with an IFR certified helicopter without a more experienced pilot-in-command is very remote. Therefore, it is considered acceptable normal practice to simulate IFR flight in VMC with less complex helicopters that are restricted to VFR operations only.

View Limiting Device

There is a requirement to have an effective means of excluding the outside visual reference available, in order to simulate instrument flight conditions. Its use is recommended. Nevertheless, you decide to what extent the device is to be used. This will depend on traffic, weather and other operational circumstances. When the candidate is using the device, you will ensure a safe level of visibility at all times.

Use of the Autopilot

Many aircraft used for Instrument Rating flight tests have autopilots on board. The use of autopilots is encouraged, as they provide assistance to pilots facing heavy workloads during flight. The candidate may elect to use an autopilot, however it is recommended that at least one approach be conducted without the assistance of an autopilot. This is of greater importance during an initial Instrument Rating flight test.

Pilot in Command

CARs 401.26 and 401.27 state in part: “the holder of a valid private pilot license or higher may act as pilot-in-command of any aircraft for the sole purpose of the holder’s flight test where the test is conducted in accordance with CAR 401.15, and no passenger other than the examiner is carried on board. . . .” This means that for the purpose of this flight test, the candidate is deemed to hold a valid instrument rating and may act as pilot-in-command. Therefore, there is no requirement for you to issue a temporary instrument rating to the candidate so that an IFR flight plan can be filed.

Ex. 1 - Pre-flight

1A. - Obtaining Weather Information

You will ensure that the candidate has obtained all the necessary weather information for the proposed flight. The candidate should brief you on the weather to be encountered during the test.

Many candidates obtain their weather briefing from a briefer via telephone. You may wish to have a printed copy of the weather information to aid in questioning the candidate on the interpretation and application of weather reports and forecasts.

You should verify the candidate’s knowledge of the CARs and the CAP General by asking specific questions regarding weather minima. Confirm that the candidate knows the standard take-off minima and the minima they used to determine their flight planned alternate.

1B. - Flight Planning

It is recommended that you contact the candidate at least one day before the test and assign the flight route. If that is not possible, the candidate should be allowed at least 45 minutes to do the flight planning, excluding weight and balance computations. To make the task more realistic, it is recommended that you assign a route that will be flown on the flight test. If that is not possible, choose a route that can be at least partially flown.

Ask questions on aircraft holding and approach airspeeds for reference during the flight test. Ensure that the candidate knows that these declared airspeeds would be the “standard airspeeds” for assessing the holding and approach items. It is recommended that the answers given by the candidate be recorded.

The candidate should be asked to calculate the weight and balance using actual weights.

1C. - Cockpit Checks

Ask the candidate to perform all checks out loud in order to avoid any misunderstandings. Ensure that the candidate verifies navigation aids and that all the flight instruments required for the planned flight are functioning and airworthy. Should the candidate omit flight instrument or navigation aid checks, you will ask the candidate to complete the checks prior to take-off. This will be assessed as a major error and the final assessment awarded will be dependent upon the effectiveness of the check carried out.

If the flight is to be conducted under “simulated IFR”, it is important that the examiner be very specific in the pre-flight briefing of the “simulated” IMC to be encountered during the flight. This will clarify the requirement to ensure that the aircraft instruments and navigation aids are indeed functional and serviceable.

Ex. 2 - IFR Operational Knowledge

Use oral questions to assess the candidate's level of knowledge of IFR procedures. Prepare questions ahead of time in accordance with the guidance in Chapter 2, Principles of Evaluation, Oral Questions. This item is considered an air item, as operational knowledge will also be evaluated during the flight.

Ex. 3 - ATC Clearances

If the instrument rating flight test is being conducted on an aircraft that is type certified for operation by a single pilot, then the candidate will be expected to handle all of the radio communications and will be assessed accordingly. If the aircraft is type certified for operation by two pilots, then the candidate will be expected to copy and read back at least the initial IFR clearance. The pilot not flying may handle subsequent radio communications. Nevertheless, the candidate will be responsible for all communications throughout the test irrespective of who is communicating with ATC. It may happen from time to time, due to operational and "flight test" circumstances, that you will be required to do some of the communication with ATC. If this is the case, it should be kept to a minimum. A good approach is to let the candidate know that you are pretending to be a passenger on board the aircraft and that the candidate will be expected to handle or be responsible for monitoring and acting on all radio communications.

It is recommended that the flight test be conducted in accordance with a filed IFR flight plan. However, should you choose to do the flight test in accordance with a VFR flight plan, it is absolutely essential that simulated clearances and instructions issued to the candidate be realistic and contain the proper usage of aviation/ATC phraseology. Ensure that the candidate reads back all clearances. If there is any doubt or confusion regarding a simulated clearance or instruction, it should be clarified immediately.

Ex. 4 - Departure

The tolerances listed in the Flight Test Guide - Instrument Rating assume no unusual circumstances. Consideration will be given for unavoidable momentary deviations from these tolerances due to circumstances beyond the reasonable control of the candidate. The key in making an evaluation is to determine if the deviation from the tolerance is due to a lack of skill or due to the circumstances or weather/wind conditions. If the candidate recognizes the deviation immediately and takes corrective action such action would mitigate in favour of the candidate.

Prior to take-off, in the interest of better cockpit co-ordination, the candidate will complete a crew briefing with the examiner on the intended departure procedure, takeoff considerations and procedures to be used in the event of an actual engine failure during takeoff and initial climb. The crew briefing is not part of the take-off evaluation but essential to safety in the event of an actual emergency.

The candidate's awareness and consideration for other aircraft while manoeuvring on ramps and taxiways will be evaluated as part of the departure.

Ex. 5 - Enroute

The enroute phase begins on interception of the outbound leg or the top of climb, whichever occurs first, and ends at the beginning of the arrival phase.

Ex. 6 - Arrival

The arrival phase starts at the top of descent or the clearance limit of the enroute phase and ends at the Initial Approach Fix.

Ex. 7 - Holding

It is recommended that the examiner direct the candidate to obtain the holding clearance from ATC. Using this method the examiner may also copy the clearance and avoid the possibility of getting into a dispute with the candidate over the validity or content of the clearance. If this is not practical, prepare and write down a holding clearance prior to departure and read it to the candidate when needed. When simulating holding clearances, it is very important that you issue a clearance that is complete, realistic and correct, using proper phraseology. Make sure that the candidate reads back the holding clearance and clearly understands what is expected. Confirm the aircraft holding speed prior to departure. Ensure that candidates know they are expected to maintain this speed during the hold.

The hold entry procedure should be one specified in the Instrument Procedures Manual (IPM), but other entry procedures that ensure remaining within the protected airspace may be used.

Ex. 8 - Approaches

The candidate will perform two different approaches on different approach facilities. This does not restrict you from conducting additional approaches due to traffic, ATC or other operational interference. One precision approach is mandatory on an initial flight test. One approach procedure should be demonstrated with a simulated failed engine for aircraft equipped with more than one engine. Particular attention should be paid to the permitted tolerances during the intermediate and final phases of the final approaches.

If the temperatures are 0°C or colder, the candidate is expected to apply temperature corrections to all minimum altitudes on the approach chart(s) used.

The candidate may fly at altitudes higher than the applicable minimum altitudes depicted on the approach chart, unless cleared otherwise by ATC, but descent during the final segment of the approach should result in reaching the MDA at a distance from the MAP approximately equal to the recommended minimum visibility. The minimum altitudes depicted on the approach chart represent hard approach floor heights above terrain or other obstacles determined during the approach design process. Descent below these altitudes compromises the approach design safety factor.

Ex. 9 - Missed Approach

To facilitate the assessment, you may ask ATC during the approach for the option of conducting a touch and go or an overshoot at the missed approach point.

Ex. 10 - Transition to Landing

Circling procedures are to be assessed, if possible. It is highly recommended that one circling procedure be assessed for the initial Instrument Rating flight test.

Ex. 11. Emergency Procedures

You will assess the candidate on **three** emergency procedures. The flight test report has 4 fields (A. Engine Failure (Multi-engine), B., C. and D.) for this flight test item. In the case of a multi-engine (aeroplane or helicopter) or centre-line thrust flight test, A. is a mandatory field, followed by B. and C. In the case of a Group 3 flight test, use fields B., C. and D.

11A. - Engine Failure – Multi-engine Aircraft

At least one engine failure will be tested for Group 1, Group 2 and Group 4(Multi) Instrument Rating flight tests. An approach with the simulated engine failure will then be carried out.

The examiner must take care to ensure that the altitude, airspeed and operating limits are sufficient to provide a margin of safety when simulating an engine failure. The method of simulating engine failures or malfunctions will be discussed with the candidate during the pre-flight briefing. You will simulate the engine failure without advance warning in accordance with the method recommended by the manufacturer. In the absence of a recommended method, simulate engine failures by retarding a throttle. In all cases, advise the candidates of the emergency by stating “simulated engine failure”. You may also simulate an engine malfunction that would eventually require an engine shutdown, such as a rough running engine, an engine fire, an oil pressure drop coupled with secondary indications of oil loss such as high oil temperature or a simulated visual sighting of oil streaming back over the engine nacelle. Whatever method is used to simulate the engine failure, care should be taken to ensure that it is a realistic occurrence for the aircraft type. An engine will be shut down only in the case of an actual emergency requiring such action.

You should determine and agree on the zero thrust power setting for the aircraft type during the pre-flight briefing. Some manufacturers recommend power settings to simulate zero thrust. It is recommended that you set the appropriate power setting on the simulated failed engine once the candidate has carried out the emergency procedure for an engine failure and indicates that the propeller would be feathered.

11B, C and D - Systems Malfunctions and Emergency Procedures

If you are not thoroughly familiar with the flight test aircraft, review the POH/AFM before asking the candidate to deal with various simulated emergencies.

Although it is recommended that one of these emergencies be tested in flight, it is the sole responsibility of the examiner to determine if aeroplane performance, weather conditions and other factors permit the safe conduct of this item in flight or on the ground with engines running. Some of the items may be tested on the ground with engines shut down.

Examiners will not give the candidate multiple unrelated emergency drills at the same time. Consequential emergencies such as hydraulic failure because of an engine failure may be simulated. Invariably, most emergency checklists will take into account consequential failures.