Flight Examiner‘s Manual

for Aeroplanes and Helicopters

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Abstract: This Manual is written for Examiners daily duties and covers various parts of their responsibilities.

Clause of equal treatment: For readers convenience notions relating to persons will be used in gender neutral and/or male form. Nevertheless the respective notion is to be applied to both genders equally and shall not be deemed to be discriminatory.

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0 Actual changes compared to the prior version

This Manual “Flight Examiner’s Manual” is published as an appendix to the Civil Aircrew Notice (“Zivillutfahrtpersonal-Hinweis”) FCL 5 (LSA320-01/07-14) and in accordance with regulation (EU) No 1178/2011. It replaces the previously published Flight Examiner’s Handbook (FEH).

The new revision is referred to as FEM and advices especially to the new Limitations of Aeroplanes and Helicopters.

This Pilot Examiner’s Manual is compiled to assist and standardize Flight Examiners. Information herein is derived from:

COMMISSION REGULATION (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council amended by Commission Regulation (EU) No 290/2012 of 30 March 2012 and

Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.

1 Objective

This Flight Examiner’s Manual has to be taken as a guidance and instruction for the Flight examiners in the respective valid version.

2 Scope

This Manual is applicable for all LSA/PEL employees and all examiners.

3 Flight Examiner’s Manual

Introduction and Limitations

Important Notice:
Every Examiner is responsible to check the latest version of FEM before conducting check flights. Feedback is highly appreciated and can be sent to: flugschulen@austrocontrol.at

The FEM comprises 11 modules. The FEM is intended to be the main reference Manual for the training and subsequent reference of Examiners.

PART-FCL references are shown in italics. Examiners are not to rely on those references unless they are checked against the most recent version of PART-FCL.

Each Module contains quick reference tables. These are intended to provide the Examiner with a precise of the essential requirements for each test/check. At the discretion of the National Authority these tables are extracted into the present Flight Examiner’s Manual (FEM).

General:
Every Examiner will be assessed and authorized via the authority. Examiners are obliged to be in general fit, firm and fair for their duty when they are going to carry out Examiner privileges. They must always release true and proper filed out forms to the authority. A big part of Aviation Safety is only possible if well trained and experienced Examiners perform skill and proficiency oversight during all required flight checking duties.

The following table describes the purpose of each Module.

Module 1 – General Requirements
Guidance material for the National Authority in its management of its flight Examiners

Module 2 – Examiner Training
A guide to the practical training of Examiners

Module 3 – Test Standards Aeroplane
Tables give a practical guide to the criteria to be considered by the Examiner when assessing each item of PART-FCL Aeroplane tests and checks

Module 4 – Test Standards Helicopter
Tables give a practical guide to the criteria to be considered by the Examiner when assessing each item of PART-FCL Helicopter tests and checks

Module 5 – Test Tolerances (Aeroplane and Helicopter)
One table shows the tolerances applicable to all PART-FCL tests and checks

Module 6 – LAPL & PPL Skill Test (Aeroplane and Helicopter)
A guide to the structure of the PPL skill test for the training of the FE for the PPL

Module 7 – CPL Skill Test (Aeroplane and Helicopter)
A guide to the structure of the CPL skill test for the training of the FE for the CPL

Module 8 – Instrument Rating - IR (Aeroplane and Helicopter)
A guide to the structure of the IR skill test for the IRE and proficiency checks for the IRE and CRE

Module 9 – Type and Class Skill Test and Proficiency Checks (Aeroplane and Helicopter)
A guide to the structure of the skill test for rating issue and the revalidation proficiency check for the TRE and CRE

Module 10 – ATPL Skill Test
A guide to the structure of the ATPL skill test

Module 11 – Instructor Skill Test and Proficiency Checks (Aeroplane and Helicopter)
A guide to the structure of flight instructor initial skill tests and revalidation proficiency checks for the FIE

All publications and guidance material released and published by the authority.

Limitations for Check Flights on Aeroplanes

During Examination Flights, no further person without special duties shall be carried.

Malfunction/Emergency Training:

1. Malfunction and emergency procedures must only be performed if the corresponding procedures are published in the manufacturer's manual.
2. Malfunction and emergency training in the aeroplane has to be performed as touch drills according to the restrictions of the AFM/POH. The exact procedure has to be briefed before the flight. The application priority of the procedure is as follows: first the published manufacturer's procedure and second procedures as trained by the ATO.
3. Pulling of circuit breakers in the aeroplane during flight or ground maneuvers for the simulation of malfunctions and emergencies is forbidden.
4. Actual engine shut down on the aeroplane is only allowed to be performed if required by the rules established in Part-FCL Appendix 9. The following limitations have to be applied:
   i. Minimum altitude 4000ft AGL.
   ii. VMC.
   iii. Visual contact to the ground.
   iv. In gliding distance to the field.
   v. ATC informed (if applicable).
   vi. Landing has to be assured.
   vii. Procedures and limitations according AFM/POH have to be applied.
5. Minimum altitude for airwork (steep turns, stalling exercises, etc.) is 4000ft above GND. Check for other traffic, before starting the exercise. Weather conditions must be VMC and continuous visual ground contact.

Planning Criteria for Check Flights:

1. Every limit published in AFM/POH/OM strictly applies. Wind gusts above the limit are not to be accepted.
2. No flight below MEL/CDL, if published.
3. T/O below LDG Minimum allowed when planned with a T/O alternate
4. Lowest landing weather Minimum is the applicable Minimum (OM, AFM, airport, crew qualification, physical and mental condition of the crew, whichever is highest).
5. Lowest WX Minimum for SE aeroplanes under IFR enroute - 1000ft cloud base / 1,5 km horizontal visibility
6. No flight shall start without required documents and associated obligations regarding valid rules and regulations.
7. No flight shall start without valid charts, updated database and flight planning documentation appropriate to the flight rules.

Limitations for Check Flights on Helicopters

During Examination Flights, no further person without special duties shall be carried.

Malfunction/Emergency Training:

1. Prior entering emergency or malfunction procedures appropriate safety margins should be calculated by the Examiner to enable corrective actions if they become necessary for the safety of the flight.
2. Malfunction and emergency procedures must only be checked if the corresponding procedures are published in the POH.
3. Malfunction and emergency checking in the helicopter has to be performed as touch drills only. The exact procedure has to be briefed before the flight.
4. Pulling of circuit breakers in the helicopter during flight or ground maneuvers for the simulation of malfunctions and emergencies is forbidden.
5. Where the test is conducted on a multi-engine helicopter a simulated engine failure drill, including a single-engine approach and landing, shall be included in the test. Maneuvers and Procedures which are marked with M in the appropriate test or check form have to be done mandatorily.

   Only MEH: Actual shut down of one engine is only allowed to be performed if required by the rules established in Part-FCL Appendix 9. The following limitations have to be applied:
   i. Minimum altitude 1000ft AGL.
   ii. VMC.
   iii. Visual contact to the ground.
   iv. In gliding distance to the field.
   v. ATC informed (if applicable).
   vi. Landing has to be assured.
   vii. Procedures and limitations according AFM/POH have to be applied.

Note:

The FE shall select four items from the following:

1. Engine malfunctions, including governor/FADEC failure, carburettor/engine icing, oil system, as appropriate
2. Fuel system malfunction
3. Electrical system malfunction
4. Hydraulic system malfunction, including approach and landing without hydraulics, as applicable
5. Main rotor and/or anti-torque system malfunction (FFS or discussion only)
6. Fire drills, including smoke control and removal, as applicable
7. Procedures regarding CAT-A certification or equivalent for MEH laid down in the appropriate flight manual:
   Simulated Engine Failure before TODP
   Simulated Engine Failure after TODP
   Simulated Engine Failure before LDP
   Simulated Engine Failure after LDP
8. Autorotations (FE to select two items from - Basic, range, low speed, and 360° turns No full down Autorotations shall be done, except Autorotations from Hover IGE
9. Practice forced landing with power recovery (if applicable)

Planning Criteria for Check Flights:

1. Every limit published in AFM/POH/OM strictly applies. Wind gusts above the limit from any side are not to be accepted.
2. No flight below MEL, if published.
3. Lowest landing weather Minimum is the applicable Minimum (OM, AFM, airport, crew qualification, physical and mental condition of the crew, whichever is highest).
4. Simulated instrument flying including recovery from unusual attitudes shall be carried out at safe altitude but no less than 1000ft AGL.
5. No flight shall start without required documents and associated obligations regarding valid rules and regulations.
6. No flight shall start without valid charts, updated database and flight planning documentation appropriate to the flight rules.
7. The examiner must ensure, when simulating emergency or abnormal flight situations that suitable landing areas are available, if required to carry out a prompt precautionary landing. If a site is found to be unacceptable for the purpose of the test upon closer inspection, the examiner may decide not to proceed to an actual landing by requesting that the candidate recover to a hover or overshoot to a climb. When a landing is accomplished following a simulated in-flight emergency to an unknown surface, the landing will be at the discretion of the examiner and only after assessing the surface condition from a hover (if the malfunction and/or emergency procedure permits otherwise landings to unknown surfaces shall not be performed).

AMC2 FCL.1015 paragraph q
A test or check flight will be conducted in accordance with the AFM and, if applicable, the AOM.

AMC2 FCL.1015 paragraph r
A test or check flight will be conducted within the limitations contained in the operations manual of an ATO.

Pre-flight preparation requires the applicant to assess the weather conditions and make his decision whether to proceed with the flight. The applicant must take into account the requirements of all the sections of the test that he is taking. The Examiner is to assess the applicant's decision. A decision to continue when the weather is forecast below the limits required to complete the flight shall be considered a fail item for test/check

Those sections/items of the test which are required to be flown by sole reference to instruments will be simulated by using suitable equipment to simulate IMC.

Awareness of icing conditions must be displayed by regularly checking the outside air temperature and carburettor heat where appropriate. The applicant should be able to use any anti/de-icing equipment fitted to the aeroplane/helicopter. If actual ice is present the necessary equipment or actions must be used. Training or preparation must ensure an operating procedure for using aeroplane/helicopter icing equipment particularly with reference to pitot heaters, carburettor heat, engine/propeller and airframe anti-icing. The aeroplane/helicopter must not be flown deliberately into icing conditions if this is contrary to the aeroplane/helicopter flight manual.

Module 1 – General Requirements

1 General

FCL.030 Practical skill test

(a) Before a skill test for the issue of a licence, rating or certificate is taken, the applicant shall have passed the required theoretical knowledge examination, except in the case of applicants undergoing a course of integrated flying training.
In any case, the theoretical knowledge instruction shall always have been completed before the skill tests are taken.

(b) Except for the issue of an airline transport pilot licence, the applicant for a skill test shall be recommended for the test by the organisation/person responsible for the training, once the training is completed. The training records shall be made available to the examiner.

AMC1 FCL.050 Recording of flight time

(iv) the holder of an examiner's certificate may log as PIC all flight time during which he or she occupies a pilot's seat and acts as an examiner in an aircraft.

FCL.1000

(a) General. Holders of an examiner certificate shall:
  (1) hold an equivalent licence, rating or certificate to the ones for which they are authorised to conduct skill tests, proficiency checks or assessments of competence and the privilege to instruct for them;
  (2) be qualified to act as PIC on the aircraft during a skill test, proficiency check or assessment of competence when conducted on the aircraft.

(c) Examination outside the territory of the Member States:
  (1) Notwithstanding paragraph (a), in the case of skill tests and proficiency checks provided in an ATO located outside the territory of the Member States, the competent authority of the Member State may issue an examiner certificate to an applicant holding a pilot licence issued by a third country in accordance with ICAO Annex 1, provided that the applicant:
    (i) holds at least an equivalent licence, rating, or certificate to the one for which they are
    (ii) complies with the requirements established in this Subpart for the issue of the relevant examiner certificate; and
    (iii) demonstrates to the competent authority an adequate level of knowledge of European aviation safety rules to be able to exercise examiner privileges in accordance with this Part.

  (2) The certificate referred to in paragraph (1) shall be limited to providing skill tests and proficiency tests/checks:
    (i) outside the territory of the Member States; and
    (ii) to pilots who have sufficient knowledge of the language in which the test/check is given.

FCL.1010 Prerequisites for examiners

Applicants for an examiner certificate shall demonstrate:

(a) relevant knowledge, background and appropriate experience related to the privileges of an examiner;

(b) that they have not been subject to any sanctions, including the suspension, limitation or revocation of any of their licences, ratings or certificates issued in accordance with this Part, for non-compliance with the Basic Regulation and its Implementing Rules during the last 3 years.

FCL.1015 Examiner standardisation

(a) Applicants for an examiner certificate shall undertake a standardisation course provided by the competent authority or by an ATO and approved by the competent authority.

(b) The standardisation course shall consist of theoretical and practical instruction and shall include, at least:
  (1) the conduct of 2 skill tests, proficiency checks or assessments of competences for the licences, ratings or certificates for which the applicant seeks the privilege to conduct tests and checks;
  (2) instruction on the applicable requirements in this part and the applicable air operations requirements, the conduct of skill tests, proficiency checks and assessments of competence, and their documentation and reporting;
  (3) a briefing on the national administrative procedures, requirements for protection of personal data, liability, accident insurance and fees.

(c) Holders of an examiner certificate shall not conduct skill tests, proficiency checks or assessments of competence of an applicant for which the competent authority is not the same that issued the examiner's certificate, unless:
  (1) they have informed the competent authority of the applicant of their intention to conduct the skill test, proficiency check or assessment of competence and of the scope of their privileges as examiners;
  (2) they have received a briefing from the competent authority of the applicant on the elements mentioned in (b)(3).

Authorisation as Senior Examiner

1. Hold a valid/current Flight Examiner Certificate
2. Have Examiner experience level acceptable to Austro Control.
3. Have produced a number of skill tests/proficiency checks conducted as PART-FCL Examiner
4. The Authority shall conduct an assessment of the applicant/candidate carrying out a Skill Test/Proficiency Check under supervision of an Inspector specifically authorised by the Authority to do so.

Applicants will be required to attend a special Briefing/Seminar arranged by NAA. Content and duration will be determined by NAA and should include:

1. Pre course self-study
2. Legislation
3. The role of the Senior Examiner
4. PART-FCL Examiner assessment (Standardisation acc. AMC 1 FCL.1015)
5. Austro Control Administrative requirements

Period of validity

Senior Examiner has an authorisation valid for 3 years in accordance with FCL.1025.

Revalidation

The revalidation of Senior Examiner is at the discretion of the authority and will include an activity report and other advises established by Austro Control.

Register of Examiners

Austro Control will maintain a register of Examiners, containing the files of Examiners who meet the requirements for the approvals sought.

Examiners assessment of competence

The assessment of competence follows the provisions laid down in FCL.1020.

2 Use of "Dummies" during the Acceptance Test for an Initial Examiners Authorisation

Definitions

It is necessary to clarify the roles of the respective members of the Initial Acceptance Flight Test as follows:

Applicant: Pilot requiring a rating etc.

Candidate: Pilot requiring Initial Examiners Authorisation

Dummy: Pilot acting as an Applicant ***(Must be an experienced Examiner)***

Acceptance Test: Flight Test conducted by a Senior Examiner (SEN) for an Initial Examiners Authorisation

The purpose of the acceptance test is to prove that the candidate for an Initial Examiners Authorisation is proficient and capable to undertake the duties of an Examiner.

Duties of Crew During Acceptance Tests

It is important that all Pre-Flight Briefings are thorough and that all members of the flight are aware of their duties and responsibilities throughout the Acceptance Test.

"Dummy"

The primary duty of a 'Dummy' is to act as an applicant in all aspects of the flight and should have available the relevant paperwork to show the examiner when requested. During the flight it is important that he makes some errors (whether by accident or by design is not important), so that the candidate must observe, exercise judgement, assess and have something to debrief on. The errors are important so that the candidate can be seen completing paperwork and detailing any retesting or retraining that may be considered necessary. The 'dummy' must not make the errors too subtle or set any traps for the candidate; he must try to produce a typical flight from a marginal applicant. The purpose of the flight is to ensure that the candidate is aware of his duties as an Examiner. A 'Pass' with no errors would prove very little. Therefore the 'dummy' needs to be an experienced examiner. Any other pilot acting as 'dummy' may be reluctant to make errors in case they would be recorded against him and have the possibility of losing his rating, also, he may not be sufficiently experienced to produce convincing errors.

Senior Examiner (SEN)

The SEN must brief the candidate at the commencement of the exercise on their relative roles; i.e. the candidate will conduct the flight test without hindrance from the SEN, including briefings, conduct of flight, assessment and debrief and documentation. The SEN should remain as unobtrusive as possible throughout the test, but at the same time observing the 'dummy' and the candidate.

Following the completed flight, the SEN and the 'dummy' notes of the flight, after which the SEN debriefs the candidate.

3 Examiner Qualifications and Roles

Pilot in Command

When the candidate is occupying a pilot's seat, he is the only one with a clear view and full access to the controls, and often is most familiar with the type, he must be the PIC and the control of the aircraft is his responsibility. However, the Examiner has an overriding responsibility not to endanger the aeroplane, although he has not full access to controls.

PART-FCL Subpart K

There will be six roles of Examiners as applicable for aeroplane, helicopter, airship, balloon and sailplane:

1. Flight Examiner (FE)
2. Type Rating Examiner (TRE)
3. Class Rating Examiner (CRE)
4. Instrument Rating Examiner (IRE)
5. Synthetic Flight Examiner (SFE)
6. Flight Instructor Examiner (FIE)

Pre-requisites

FCL.1000

(a) General. Holders of an examiner certificate shall:
  (1) hold an equivalent licence, rating or certificate to the ones for which they are authorised to conduct skill tests, proficiency checks or assessments of competence and the privilege to instruct for them;
  (2) be qualified to act as PIC on the aircraft during a skill test, proficiency check or assessment of competence when conducted on the aircraft.

(b) Special conditions:
  (1) In the case of introduction of new aircraft in the Member States or in an operator's fleet, when compliance with the requirements in this Subpart is not possible, the competent authority may issue a specific certificate giving privileges for the conduct of skill tests and proficiency checks. Such a certificate shall be limited to the skill tests and proficiency checks necessary for the introduction of the new type of aircraft and its validity shall not, in any case, exceed 1 year.
  (2) Holders of a certificate issued in accordance with (b)(1) who wish to apply for an examiner certificate shall comply with the prerequisites and revalidation requirements for that category of examiner.

(c) Examination outside the territory of the Member States:
  (1) Notwithstanding paragraph (a), in the case of skill tests and proficiency checks provided in an ATO located outside the territory of the Member States, the competent authority of the Member State may issue an examiner certificate to an applicant holding a pilot licence issued by a third country in accordance with ICAO Annex 1, provided that the applicant:
    (i) holds at least an equivalent licence, rating, or certificate to the one for which they are authorised to conduct skill tests, proficiency checks or assessments of competence, and in any case at least a CPL;
    (ii) complies with the requirements established in this Subpart for the issue of the relevant examiner certificate; and
    (iii) demonstrates to the competent authority an adequate level of knowledge of European aviation safety rules to be able to exercise examiner privileges in accordance with this Part.

(2) The certificate referred to in paragraph (1) shall be limited to providing skill tests and proficiency tests/checks:
   (i) outside the territory of the Member States; and
   (ii) to pilots who have sufficient knowledge of the language in which the test/check is given.

Roles

An examiner standardisation has to be attended and completed successfully in accordance with AMC1 FCL.1015 Examiner standardisation.

Quick reference:

Aeroplanes and Helicopter

	FE(LAPL & PPL) AUTHORISATION
Part-FCL reference	FCL.1005.FE
Who can test:	An Inspector or Senior Examiner appointed by the Authority
Form used:	National Form
Test format:	1. Based on the PPL Skill test: brief, conduct and assess a skill test flown by an examiner acting as the applicant. 2. Where the certificate is required for Multi engine aeroplane/helicopter the test is to be conducted in that type/class

	FE(CPL) AUTHORISATION
Part-FCL reference	FCL.1005.FE
Who can test:	An Inspector or Senior Examiner appointed by the Authority
Form used:	National Form
Test format:	1. Based on the CPL skill test: brief, conduct and assess a skill test flown by an examiner acting as the applicant. 2. Where an authorisation is required for Multi engine aeroplane/helicopter the test is to be conducted in that type/class

	TRE AUTHORISATION
Part-FCL reference	FCL.1005.TRE
Who can test:	An Inspector or Senior Examiner appointed by the Authority
Form used:	National Form
Test format:	1. Based on the ATPL skill test: brief, conduct and assess a skill test flown by an applicant, or an examiner acting as the applicant. 2. The authorisation will be type specific

	CRE AUTHORISATION (not applicable to helicopter)
Part-FCL reference	FCL.1005.CRE
Who can test:	An Inspector or Senior Examiner appointed by the Authority
Form used:	National Form
Test format:	1. Based on the test for which the authorisation is sought: brief, conduct and assess a skill test or proficiency check profile for a SPA rating, flown by the examiner acting as the applicants. 2. Where the certificate is required for Multi engine aeroplane the test is to be conducted in that type/class 3. Where instrument rating revalidation privileges are required the test is to include all instrument rating test/check requirements

	IRE AUTHORISATION
Part-FCL reference	FCL.1005.IRE
Who can test:	An Inspector or Senior Examiner appointed by the Authority
Form used:	National Form
Test format:	1. Based on the Instrument Rating skill test: brief, conduct and assess a skill test flown by an examiner acting as the applicant. 2. Where the certificate is required for multi-engine aeroplane/helicopter the test is to be conducted in that type/class

	SFE AUTHORISATION
Part-FCL reference	FCL.1005.SFE
Who can test:	An Inspector or Senior Examiner appointed by the Authority
Form used:	National Form
Test format:	1. Based on the type rating skill test: brief, conduct and assess a skill test flown by an applicant, or an examiner or acting as the applicant. 2. The certificate will be flight simulator and Type Specific

	FIE AUTHORISATION
Part-FCL reference	FCL.1005.FIE
Who can test:	An Inspector or Senior Examiner appointed by the Authority
Form used:	National Form
Test format:	1. Based on the Flight Instructor skill test: brief, conduct and assess an instructor skill test flown by the examiner acting as the applicant. 2. Where an authorisation is required for both single and multi engine aeroplane the required multi engine elements of test are to be conducted in that type/class as a second flight

4 Certification, Revalidation and Renewal

The Authority will maintain a list of all examiners it has certified stating for which roles they are certified. The list will be made available to ATOs and AOC holders. The Authority will determine by which means the examiners will be allocated to the skill test.

Validity

FCL.1025

(a) Validity. An examiner certificate shall be valid for 3 years.

Examiner revalidation and renewal of Examiner certificates

FCL.1025

(b) Revalidation. An Examiner certificate shall be revalidated when the holder has, during the validity period of the certificate:
   (1) conducted at least 2 skill tests, proficiency checks or assessments of competence every year;
   (2) attended an Examiner refresher seminar provided by the competent authority or by an ATO and approved by the competent authority, during the last year of the validity period.
   (3) One of the skill tests or proficiency checks completed during the last year of the validity period in accordance with (1) shall have been assessed by an inspector from the competent authority or by a senior Examiner specifically authorised to do so by the competent authority responsible for the Examiner’s certificate.
   (4) When the applicant for the revalidation holds privileges for more than one category of Examiner, combined revalidation of all Examiner privileges may be achieved when the applicant complies with the requirements in (b)(1) and (2) and FCL.1020 for one of the categories of Examiner certificate held, in agreement with the competent authority.

(c) Renewal. If the certificate has expired, applicants shall comply with the requirements of (b)(2) and FCL.1020 before they can resume the exercise of the privileges.

(d) An Examiner certificate shall only be revalidated or renewed if the applicant demonstrates continued compliance with the requirements in FCL.1010 and FCL.1030.

5 Authority to sign documentation after the Skill test/Proficiency check

The Authority may grant Examiners authorisation to sign licence pages for the revalidation of items successfully passed by Proficiency Check in accordance with FCL.1030.

6 Restrictions to the testing of applicants

Notification of Examiners
FCL.1005
Examiners shall not conduct:

(a) skill tests or assessments of competence of applicants for the issue of a licence, rating or certificate:
  (1) to whom they have provided flight instruction for the licence, rating or certificate for which the skill test or assessment of competence is being taken; or
  (2) when they have been responsible for the recommendation for the skill test, in accordance with FCL.030(b);

(b) skill tests, proficiency checks or assessments of competence whenever they feel that their objectivity may be affected.

GM1 FCL.1005(b) Limitation of privileges in case of vested interests
Examples of a situation where the Examiner should consider if his/her objectivity is affected are when the applicant is a relative or a friend of the Examiner, or when they are linked by economical interests or political affiliations, etc.

Module 2 – Practical training of Examiners

1 General

It is intended that all applicants for authorisation must have received an authority approved initial training for this purpose before undertaking an acceptance flight with an inspector/senior Examiner.

The standards of competence of pilots depend to a great extent on the competence of Examiners. Examiners will be briefed by the Authority on the air crew regulation requirements, the conduct of skill tests and proficiency checks, and their documentation and reporting. Examiners should also be briefed on the protection requirements for personal data, liability, accident insurance and fees, as applicable in the EU Member State concerned.

Applicants for an Examiner certificate shall demonstrate their competence to an inspector from the competent authority or a senior Examiner specifically authorised to do so by the competent authority responsible for the Examiner’s certificate through the conduct of a skill test, proficiency check or assessment of competence in the Examiner role for which privileges are sought, including briefing, conduct of the skill test, proficiency check or assessment of competence, and assessment of the person to whom the test, check or assessment is given, debriefing and recording documentation.

2 Training Content

Trainers

AMC1 FCL.1020, 1025; FCL.1025

QUALIFICATION OF SENIOR EXAMINERS

(a) A senior Examiner specifically tasked by the competent authority to observe skill tests or proficiency checks for the revalidation of Examiner certificates should:
  (1) hold a valid or current Examiner certificate appropriate to the privileges being given;
  (2) have Examiner experience level acceptable to the competent authority;
  (3) have conducted a number of skill tests or proficiency checks as a Part-FCL Examiner.

Role and duties of the Examiner

AMC1 FCL.1020 Examiners assessment of competence

BRIEFING THE 'CANDIDATE'

(d) The 'candidate' should be given time and facilities to prepare for the test flight. The briefing should cover the following:
  (1) the objective of the flight;
  (2) licensing checks, as necessary;
  (3) freedom for the 'candidate' to ask questions;
  (4) operating procedures to be followed (for example operators manual);
  (5) weather assessment;
  (6) operating capacity of 'candidate' and Examiner;
  (7) aims to be identified by 'candidate';
  (8) simulated weather assumptions (for example icing and cloud base);
  (9) use of screens (if applicable);
  (10) contents of exercise to be performed;
  (11) agreed speed and handling parameters (for example V-speeds, bank angle, approach minima); All items above are core knowledge requirements for an Examiner and are recommended as core course material. This core course may be studied before recommended Examiner training is commenced. The core course may utilise any training format and would be prepared by the Authority.
  (12) use of R/T;
  (13) respective roles of 'candidate' and Examiner (for example during emergency);
  (14) administrative procedures (for example submission of flight plan).

(e) The Examiner applicant should maintain the necessary level of communication with the 'candidate'. The following check details should be followed by the Examiner applicant:
  (1) involvement of Examiner in a MP operating environment;
  (2) the need to give the 'candidate' precise instructions;
  (3) responsibility for safe conduct of the flight;
  (4) intervention by Examiner, when necessary;
  (5) use of screens;
  (6) liaison with ATC and the need for concise, easily understood intentions;
  (7) prompting the 'candidate' about required sequence of events (for example following a go-around);
  (8) keeping brief, factual and unobtrusive notes.

Specific Flight Test and Check training

Detailed knowledge of the tests and checks for which the authorisation is sought is required. Training is to cover:

1. Knowledge and management of the test for which the authorisation is to be sought. These are described in the relevant Modules in this FEM.
2. Knowledge of the administrative procedures pertaining to that test/check
3. For an initial Examiner authorisation practical training in the examination of the test profile sought is required.
4. An Examiner Certification Acceptance Test flight with an Inspector or senior Examiner designated by the Authority, e.g. for FE (PPL) this is to be the PPL skill test.

Examples of acceptable means of compliance for Initial Examiner training

categories	CRE	TRE	FE(PPL)	FE(CPL)	FIE	IRE
Core course	1. FEM where this is used nationally 2. Training course on PART-FCL requirements and procedures 3. Test ***AMC1 FCL.1015 item (b) Examiner standardisation*** The course should last: (1) for the FE and FIE, at least 1 day, divided into theoretical and practical training; (2) for other Examiners, at least 3 days, divided into theoretical training (1 day) and practical training in an FFS conducting role played proficiency checks and skill tests (at least 2 days).					
Ground training	***AMC1 FCL.1015 item (d) (1) Examiner standardisation*** Theoretical training covering at least: (i) the contents of AMC2 FCL.1015 and the FEM; (ii) Part-FCL and related AMCs and GM relevant to their duties; (iii) operational requirements and related AMCs and GM relevant to their duties; (iv) national requirements relevant to their examination duties; (v) fundamentals of human performance and limitations relevant to flight examination; (vi) fundamentals of evaluation relevant to applicant's performance; (vii) management system of ATOs; (viii) MCC, human performance and limitations, if applicable.					
Flight test training general	Knowledge and management of the test for which the certificate is to be sought. These are described in the relevant modules in this manual					
Flight test and check training (flight)	For an initial Examiner certificate, practical training should include the examination of the test profile sought, consisting of the conduct of at least two test or check profiles in the role of Examiner (these two tests or checks profiles can be performed in the same simulator session), including briefing, conduct of the skill test and proficiency check, assessment of the applicant to whom the test or check is given, debriefing and recording or documentation under the supervision of an Examiner of the appropriate category on the applicable type. This training is conducted in the aircraft if approval for testing or checking in the aircraft is required. If Examiner privileges in FSTD's are required, practical instruction in the use of FSTD(s) for testing or checking should also be completed.					
Flight test (additional to course)	Examiner Certification Acceptance Test with an inspector/senior Examiner authorised by the Authority					

3 Test/Check Standards

Standards of performance are central to a consistent conduct of tests and checks by Examiners throughout EU member states:

1. Examiners shall consistently apply PART-FCL standards during a test/check. However, as the circumstances of each test/check conducted by an Examiner may vary, it is also important that an Examiner's test/check assessment takes into account any adverse condition(s) encountered during the test/check.

2. It is emphasised that test/check applicants should concern themselves only with flying and operating the aeroplane/helicopter to the best of their ability. Definition of, and compliance with, the Test Standards is the responsibility of the Examiner, however these are shown in Modules 3 and 4 in the interest of openness and as a reference for the Examiner and applicant

3. The Examiner is expected to display sound judgement particularly when establishing any abnormal or simulated emergency exercise so that the safety of the flight is never placed at risk.

4. Throughout the flight compliance with briefing/checklists, procedures, anti-icing and de-icing precautions, airmanship, ATC liaison and compliance, RT procedures, flight management and MCC (where applicable) will be assessed.

5. Examiners are reminded that applicants may appeal against the conduct of any test/check in accordance with regulations.

Purpose of a test/check

AMC2 FCL.1015 paragraph

(c) Determine through practical demonstration during a test or check that an applicant has acquired or maintained the required level of knowledge and skill or proficiency.
(d) Improve training and flight instruction in ATOs by feedback of information from Examiners about items or sections of tests or checks that are most frequently failed.
(e) Assist in maintaining and, where possible, improving air safety standards by having Examiners display good airmanship and flight discipline during tests or checks.
(m) An Examiner will plan a test/check in accordance with PART-FCL requirements. Only the manoeuvres and procedures set out in the appropriate test/check form will be undertaken. The same Examiner should not re-examine a failed applicant without the agreement of the applicant.

Examiner preparation for test/check

AMC2 FCL.1015 paragraph

(l) An Examiner should supervise all aspects of the test or check flight preparation, including, where necessary, obtaining or assuring an ATC 'slot' time.

The Examiner shall be the pilot-in-command, except in circumstances agreed by the Examiner.

Examiner Approach

AMC2 FCL.1015 paragraph

(n) An Examiner should encourage a friendly and relaxed atmosphere to develop both before and during a test or check flight. A negative or hostile approach should not be used. During the test or check flight, the Examiner should avoid negative comments or criticisms and all assessments should be reserved for the debriefing.

Test/check scheduling

GM1 FCL.1015 paragraph

(a) An Examiner should plan per day not more than:
- (1) three tests or checks relating to PPL, CPL, IR or class ratings;
- (2) four tests or checks relating to LAPL,
- (3) two tests or checks related to CPL, IR or ATPL;
- (4) two assessments of competence related to instructor certificates;
- (5) four tests or checks relating to SP type ratings.

(b) An Examiner should plan at least (…) 3 hours for a PPL, CPL, IR or class rating test or checks, and at least 4 hours for FI, CPL, IR, MPL, ATPL or MP type rating tests or checks, including pre-flight briefing and preparation, conduct of the test, check or assessment of competence, de-briefing, evaluation of the applicant and documentation.

(c) When planning the duration of a test, check or assessment of competence, the following values may be used as guidance:
- (1) 45 minutes for SP class ratings VFR only;
- (2) 90 minutes for LAPL(A) or (H), PPL and CPL, including navigation section;
- (3) 60 minutes for IR, FI and SP type or class ratings;
- (4) 120 minutes for CPL, MPL, ATPL and MP type ratings.

Preparing for the applicant

AMC2 FCL.1015 paragraph m

An Examiner will plan a test or check in accordance with Part-FCL requirements. Only the maneuvers and procedures set out in the appropriate test or check form will be undertaken. The same Examiner should not re-examine a failed applicant without the agreement of the applicant.

a. Adequate and appropriate briefing/debriefing facilities should be used for all tests.
b. Instruction for the associated theoretical knowledge examinations should always have been completed before each skill test is taken.
c. Knowledge elements not evident in the demonstrated skills may be tested by questioning, at any time, during the flight event. Questioning in flight should be used judiciously so that safety is not jeopardised. Questions may be deferred until after the flight portion of the test is completed.
d. For aeroplane/helicopter requiring only one pilot, the Examiner may not assist the applicant in the management of the aeroplane/helicopter, radio communications, tuning and identifying navigational equipment, and using navigation charts.
e. If occupying a pilot seat the Examiner should not take part in the operation of the aeroplane/helicopter other than for safety.
f. Flight Safety should be the prime consideration at all times. The Examiner, applicant and any other crew should be alert for other traffic.

Expansion of the details of the items a. to f. above is covered under the relevant paragraph headings below.

AMC2 FCL.1015 paragraph t

A test or check is intended to simulate a practical flight. Thus, an Examiner may set practical scenarios for an applicant while ensuring that the applicant is not confused and air safety is not compromised.

4 Pre Flight – briefing

Examiner approach

The performance of an applicant under test conditions will often be adversely affected by some degree of nervous tension, but the Examiner can do much to redress the balance in his favour by the adoption of a friendly and sympathetic attitude. Any suggestion of haste during briefing should be avoided and the applicant should be encouraged to ask as many questions as he wishes at the conclusion of each section. Clear and unhurried instructions at this stage will not only serve to put the applicant at his ease, but will ensure when airborne that the flight proceeds smoothly and without unnecessary delay.

Construction of the Briefing

The pre-flight briefing may be given as one or more separate elements, as required, to give the applicant the maximum opportunity to understand and prepare what is required of him.

Briefing content

The applicant should be given time and facilities to prepare for the test flight. The briefing should cover the following:

1. the objective of the flight
2. licensing checks, as necessary
3. freedom for the applicant to ask questions
4. operating procedures to be followed (e.g. operators manual)
5. weather assessment
6. operating capacity of applicant and Examiner
7. aims to be identified by applicant
8. simulated weather assumptions (e.g. icing, cloud base)
9. contents of exercise to be performed
10. agreed speed and handling parameters (e.g. V-speeds, bank angle) use of R/T
11. respective roles of applicant and Examiner (e.g. during emergency)
12. administrative procedures (e.g. submission of flight plan) in flight

Examiner training must focus on the requirements to maintain the necessary level of communication with the applicant. The following check details should be followed by the Examiner applicant:

1. involvement of Examiner in a multi-pilot operating environment
2. the need to give the 'applicant' precise instructions
3. responsibility for safe conduct of the flight
4. intervention by Examiner, when necessary
5. use of screens
6. liaison with ATC and the need for concise, easily understood intentions
7. prompting the 'applicant' regarding required sequence of events (e.g. following a go - around)
8. keeping brief, factual and unobtrusive notes

Applicant's Planning and facilities

The Examiner shall conduct each test/check in such a manner as to conform to the guidance given by the Authority such that each applicant is allowed adequate time for the test, normally not more than one hour. Adequate Planning facilities must be available to the applicant. The Examiner will check that the applicant is aware of where resources are. A quiet briefing room should be used so that the planning can be completed without interruption or distraction.

Planning shall be completed without assistance from other students or instructors. Current ATC and Met information must be obtained. Any booking requirements should be made, by the applicant, in adequate time for the flight.

A flight log should be prepared and the Examiner may request a copy. The log may include such items as:

1. Route (including flight to the planned alternate aerodrome)
2. Communication and navaid frequencies (note that where this information is clearly displayed on planning documents, such as the charts to be used, it is not necessary to copy that information to the log)
3. Planned levels and altitudes
4. Timings, ETAs
5. MSA, safety height or minimum levels/altitudes
6. Fuel (showing contingency fuel and space to plot fuel remaining at way points)
7. Space for logging ATIS and clearances in a chronological order.
   The route may require flight through airspace other than Class G airspace and consideration should be given to any special precautions during planning.

Planning and preparation must be completed by the crew using material acceptable to the Authority. Computerised flight/navigation plans or aeroplane/helicopter mass and balance calculations may be used during the allowed planning period. The applicant remains solely responsible for all planning calculations.

Applicants will be required to calculate take-off and landing performance for the conditions prevailing, usually for the most limiting runway expected on the flight.

5 Airmanship

Definition

Airmanship covers a broad range of desirable behaviors and abilities in an aviator. It is not simply a measure of skill or technique, but also a measure of a pilot’s awareness of the aircraft, the environment in which it operates, and of his own capabilities.

Airmanship can be defined as:

1. A sound acquaintance with the principles of flight,
2. The ability to operate an airplane with competence and precision both on the ground and in the air, and
3. The exercise of sound judgment that results in optimal operational safety and efficiency.

The three fundamental principles of expert airmanship are skill, proficiency, and the discipline to apply them in a safe and efficient manner.

Special airmanship topics to cover:

1. Know yourself
2. Know your aircraft
3. Know your environment
4. Know your risk

Airmanship competencies

Airmanship competencies may be grouped into three clusters of observable behaviour:

1) COMMUNICATIONS PROCESSES AND DECISIONS
   a) Briefing
   b) Inquiry/Advocacy/Assertiveness
   c) Self-Criticism
   d) Communication with available personnel resources
   e) Use of checklists
   f) Decision making

2) BUILDING AND MAINTENANCE OF FLIGHT COOPERATION
   a) Leadership/Team skills
   b) Interpersonal Relationships

3) WORKLOAD MANAGEMENT AND SITUATIONAL AWARENESS
   a) Preparation/Planning
   b) Vigilance
   c) Workload Distribution
   d) Distraction Avoidance
   e) Avoidance of undesirable situations (e.g., wake turbulence, inadequate aeroplane/helicopter spacing)

How the Examiner Assesses Airmanship

The majority of aviation accidents and incidents are due to poor resource management failures by the pilot. Fewer are due to technical failures.

Pass/Fail judgements based solely on Airmanship issues must be carefully chosen since they may be entirely subjective. It is not practical to give a comprehensive list of Airmanship considerations, however, the 3 'cluster areas' described above include items which the applicant may forget to complete (e.g. correct radio calls) while others are an indication of his capacity to deal with present or evolving flight conditions (e.g. poor spacing from other aeroplane/helicopter or airspace awareness). It is, therefore, the Examiner's role to observe how the applicant manages the resources available to him to achieve a safe and uneventful flight. The Examiner must be satisfied that the success of the flight was a result of good airmanship and not good luck.

If the applicant shows early and consistent awareness of airmanship considerations (e.g. repetitive checking of icing conditions in a level cruise clear of icing conditions) the Examiner may allow the applicant to brief only changes during the remainder of the flight.

Examiners themselves are required to exercise proper Airmanship competencies in conducting tests/checks as well as expecting the same from applicants.

6 Assessment System

6.1 Factors affecting Evaluation

Comparing Candidates with 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 **four characteristics**, when used carefully in the conduct of a flight test, will result in an accurate and effective evaluation.

1 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 effect 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.

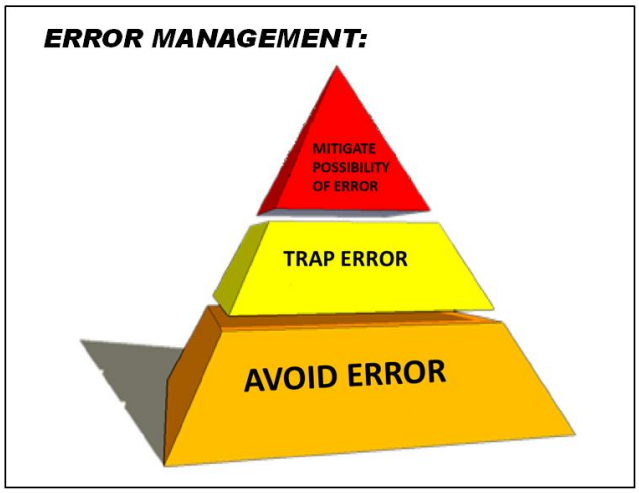
Testing for the purpose of licensing must remain clearly removed from training in order to maintain the reliability of an evaluation. For example, a second or third attempt, in air flight test items, may give the candidate the immediate practice needed to demonstrate a maneuver adequately. For this reason, an item will not be repeated unless one of the following conditions applies:
a) Discontinuance. Discontinuance of a maneuver for valid safety reasons; i.e., a go-around or other procedure necessary to modify the originally planned maneuver.
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 maneuver. A candidate’s failure to know the requirements of a specified maneuver is not grounds for repeating a task or maneuver.
d) Other Factors. Any condition where the Examiner was distracted to the point that the candidate’s performance of the maneuver (radio calls, traffic, etc.) could not adequately be observed.

2 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 certificate, licence or rating sought.

3 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 modules with no additions or deletions.

4 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 sound and adequate background knowledge of the evaluation process and the expertise to accurately assess flight test applicants without prejudice.

6.2 The components of the Threat and Error Management (TEM) Model

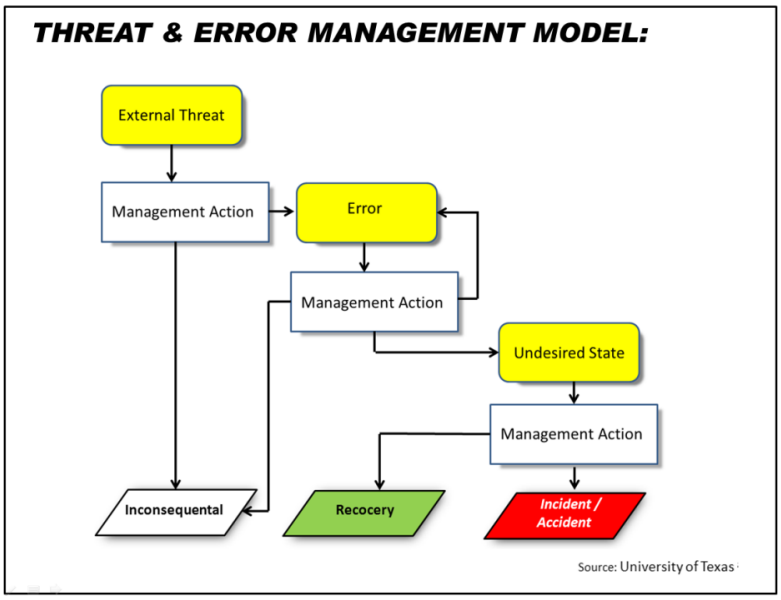


Threats

Threats are defined as events or errors that occur beyond the influence of the flight crew, increase operational complexity, and which must be managed to maintain the margins of safety. During typical flight operations, flight crews have to manage various contextual complexities. Such complexities would include, for example, dealing with adverse meteorological conditions, airports surrounded by high mountains, congested airspace, aircraft malfunctions, errors committed by other people outside of the cockpit, such as air traffic controllers, flight attendants or maintenance workers, and so forth. The TEM Model considers these complexities as threats because they all have the potential to negatively affect flight operations by reducing margins of safety.
Some threats can be anticipated, since they are expected or known. For example, flight crew can anticipate the consequences of adverse weather or prepare for a congested airport by making sure they keep a watchful eye for other aircraft as they execute the approach.

Some threats can occur unexpectedly, such as an in-flight aircraft malfunction that happens suddenly and without warning. In this case flight crew applies skills and knowledge acquired through training and experience. Lastly, some threats may not be directly obvious to flight crew immersed in the operational context, and may need to be uncovered by safety analysis.
These are considered latent threats.

Examples of latent threats include equipment design issues, optical illusions or time pressures. Regardless of whether threats are expected, unexpected, or latent; one measure of the effectiveness of a flight crew’s (single pilot) ability to manage threats is whether threats are detected with the necessary anticipation to enable the flight crew to respond to them through deployment of appropriate counter-measures. Threat management is a building block to error management and undesired aircraft state management. Although the threat error linkage is not necessarily straightforward, or it may not be always possible to establish a linear relationship, or one-to-one mapping between threats, errors and undesired states, archival data demonstrates that mismanaged threats are normally linked to flight crew/pilot errors, which in turn are often linked to undesired aircraft states. Threat management provides the most proactive option to maintain margins of safety in flight operations, by voiding safety compromising situations at their root.

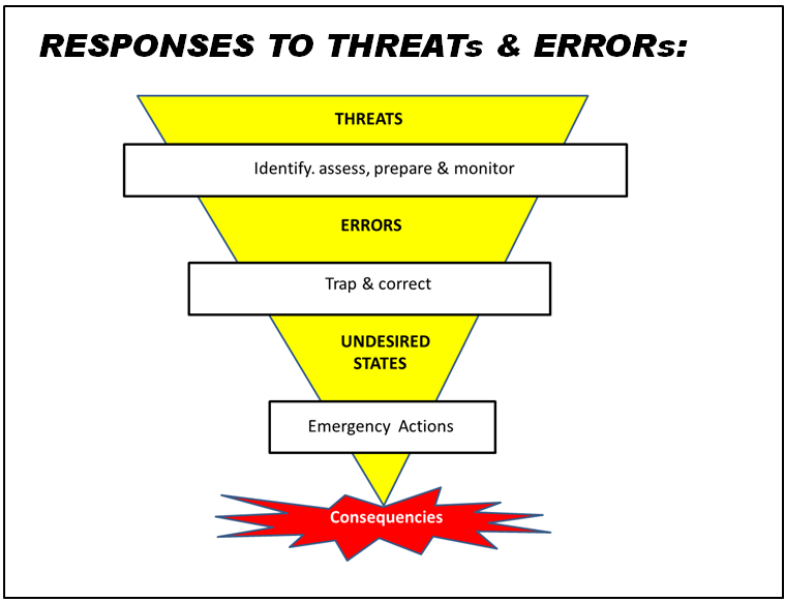


Errors

Errors are defined actions or inactions by the flight crew that lead to deviations from organizational or flight crew intentions or expectations. Unmanaged and/or mismanaged errors frequently lead to undesired aircraft states. Errors in the operational context thus tend to reduce the margins of safety and increase the probability of adverse events.

Errors can be spontaneous (i.e., without direct linkage to specific, obvious threats), linked to threats, or part of an error chain. Examples of errors would include the inability to maintain a stabilized approach, executing a wrong automation mode, miss-setting an altimeter pressure or misinterpreting an ATC clearance.
Regardless of the type of error, an error’s effect on safety depends on whether the flight crew detects and responds to the error before it leads to an undesired aircraft state and to a potential unsafe outcome. This is why one of the objectives of TEM is to understand error management (i.e., detection and response), rather than solely focusing on error causality (i.e., causation and commission). From the safety perspective, operational errors that are timely detected and promptly responded to (i.e., properly managed), that do not lead to undesired aircraft states, do not reduce margins of safety in flight operations, and thus become operationally inconsequential. In addition to its safety value, proper error management represents an example of successful human performance, presenting both - learning and training value. Capturing how errors are managed is then as important, if not more, than capturing the prevalence of different types of error. It is of interest to capture if and when errors are detected and by whom, the response(s) upon detecting errors, and the outcome of errors. Some errors are quickly detected and resolved, thus becoming operationally inconsequential, while others go undetected or are mismanaged. A mismanaged error is defined as an error that is linked to or induces an additional error or undesired aircraft state.

Examiners should familiarize themselves with the concept of TEM and examine these principles when assessing general Airmanship.



6.3 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. Examiners must conduct all flight tests in accordance with the standards expressed in the applicable flight test guide. An Examiner must not allow personal prejudices to interfere with the objective evaluation of a candidate's performance.

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.
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 Examiners 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 published criteria. 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 guidance material, 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 judgment 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.

6.4 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 or rating being sought.
This is an 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. Therefore, Examiners must 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 center 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.

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.
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.

6.5 Definition of strong and weak elements of performance

Mark that best describes the weakest element(s) applicable to the candidate's performance of the particular test sequence/item demonstrated.

Performance is well executed considering existing conditions:

1. Aircraft handling is smooth and positive with a high level of precision.
2. Technical skills indicate a thorough knowledge of procedures, aircraft systems, limitations and performance characteristics.
3. Situational awareness is indicated by continuous anticipation and vigilance.
4. Flight management skills are exemplary and threats are consistently anticipated, recognized and well managed.
5. Safety margins are maintained through consistent and effective management of aircraft systems and mandated operational protocols.

Performance is observed to include minor errors:

1. Aircraft handling with appropriate control input but includes minor deviations.
2. Technical skills indicate an adequate knowledge of procedures, aircraft systems, limitations and performance characteristics to successfully complete the task.
3. Situational awareness is adequately maintained as candidate responds in a timely manner to cues and changes in the flight environment to maintain safety while achieving the aim of the sequence/item.
4. Flight management skills are effective. Threats are anticipated and errors are recognized and recovered. Safety margins are maintained through effective use of aircraft systems and mandated operational protocols.

Performance is observed to include major errors:

1. Aircraft handling is performed with major deviations and/or an occasional lack of stability, over/under control or abrupt control input.
2. Technical skills reveal deficiencies either in depth of knowledge or comprehension of procedures, aircraft systems, limitations and performance characteristics that do not prevent the successful completion of the task.
3. Situational awareness appears compromised as cues are missed or attended to late or the candidate takes more time than ideal to incorporate cues or changes into the operational plan.
4. Flight management skills are not consistent. Instrument displays, aircraft warnings or automation serve to avert an undesired aircraft state by prompting or remedying threats and errors that are noticed late. Safety margins are not compromised, but poorly managed.

Performance is observed to include critical errors or the Aim of the test sequence/item is not achieved:

1. Aircraft handling is performed with critical deviations and/or a lack of stability, rough use of controls or control of the aircraft is lost or in doubt.
2. Technical skills reveal unacceptable levels of depth of knowledge or comprehension of procedures, aircraft systems, limitations and performance characteristics that prevent a successful completion of the task.
3. Lapses in situational awareness occur due to a lack of appropriate scanning to maintain an accurate mental model of the situation or there is an inability to integrate the information available to develop and maintain an accurate mental model.
4. Flight management skills are ineffective, indecisive or noncompliant with mandated published procedures and corrective countermeasures are not effective or applied.
5. Safety margins are compromised or clearly reduced.

Errors

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

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

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

Critical Error
An action or inaction that is mismanaged and consequently leads to an undesired aircraft state or compromises safety such as:
Non-compliance to mandated standard operating procedures; or
Repeated improper error management or uncorrected and unrecognized threats, which risk putting the aircraft in an undesired state; or
Repeated major errors or the non-performance of certain criteria prescribed in the applicable guidance material found in PART VII of this manual.

Deviations

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

Minor Deviation
A deviation that does not exceed a specified limit.

Major Deviation
A deviation that exceeds a specified limit or repeated minor deviations without achieving stability.

Critical Deviation
A major deviation that is repeated, excessive or not corrected, such as:
1. Repeated non-adherence to specified limits; or
2. Not identifying and correcting major deviations; or
3. More than doubling the specified value of a limit.

6.6 Conduct of Test/Check

AMC2 FCL.1015 paragraph v
An Examiner should maintain a flight log and assessment record during the test/check for reference during the post/flight de-brief.

This record should be compiled without alerting or attracting the attention of the applicant.

Communications in flight should only be necessary to prompt the applicant regarding required sequence of events using concise and easily understood intentions (e.g. following a go-around)

AMC2 FCL.1015 paragraph w
An Examiner should be flexible to the possibility of changes arising to pre-flight briefs due to ATC instructions, or other circumstances affecting the test/check.

AMC2 FCL.1015 paragraph x
Where changes arise to a planned test/check an Examiner should be satisfied that the applicant understands and accepts the changes. Otherwise, the test/check flight should be terminated.

AMC2 FCL.1015 paragraph y
Should an applicant choose not to continue a test or check for reasons considered inadequate by an Examiner, the applicant will be assessed as having failed those items or sections not attempted. If the test or check is terminated for reasons considered adequate by the Examiner, only these items or sections not completed will be tested during a subsequent test or check.

AMC2 FCL.1015 paragraph z
An Examiner should terminate a test/check only for the purpose of assessing the applicant, or for safety reasons.
Except when the Examiner has to give guidance or a reminder, the applicant should be allowed to conduct the flight without interruption. It should be remembered, however, that the Examiner is responsible for the safe conduct of the flight and the prevention of any infringements.

AMC2 FCL.1015 paragraph g
Each item within a test or check section should be completed and assessed separately. The test or check schedule, as briefed, should not normally be altered by an Examiner. A failed item is not always a failed section, for example type rating skill test where a failure of an item in a section does not fail the entire section, only the failed item is taken again.

AMC2 FCL.1015 paragraph h
Marginal or questionable performance of a test/check item should not influence an Examiner's assessment of any subsequent items.

AMC2 FCL.1015 paragraph f
An Examiner will ensure that an applicant completes a test or check in accordance with Part-FCL requirements and is assessed against the required test or check standards.

AMC2 FCL.1015 paragraph j
When a test/check is completed or discontinued, an Examiner should de-brief the applicant and give reasons for items/sections failed. In the event of a failed or discontinued skill test or proficiency check, the Examiner should provide appropriate advice to assist the applicant in re-tests/re-checks.

AMC2 FCL.1015 paragraph k
Any comment on, or disagreement with, an Examiner’s test/check evaluation/assessment made during a debrief will be recorded by the Examiner on the test/check report, and will be signed by the Examiner and countersigned by the applicant.

AMC2 FCL.1015 paragraph o
Although test/checks may specify flight test tolerances, an applicant should not be expected to achieve these at the expense of smoothness or stable flight. An Examiner should make due allowance for unavoidable deviations due to turbulence, ATC instructions, etc.

AMC1 FCL.1020 paragraph f
The Examiner applicant should refer to the flight test tolerances given in the relevant skill test. Attention should be paid to the following points:
(1) questions from the ‘candidate’;
(2) give results of the test and any sections failed;
(3) give reasons for failure.

6.7 Pass/Fail criteria

The Examiner is to check PART-FCL references for pass fail criteria relevant to the test to be conducted. In general the guidance is:

For Single-Pilot Aeroplanes:
The applicant shall pass all sections of the skill test/proficiency check. If any item in a section is failed, that section is failed. Failure in more than one section will require the applicant to take the entire test/check again. Any applicant failing only one section shall take the failed section again. Failure in any section of the re-test/re-check including those sections that have been passed at a previous attempt will require the applicant to take the entire test/check again.

For Multi-Pilot and Single-Pilot high-performance complex aeroplanes:
The applicant shall pass all sections of the skill test/proficiency check. Failure of more than five items will require the applicant to take the entire test/check again. Any applicant failing 5 or less items shall take the failed items again. Failure in any item on the re-test/check including those items that have been passed at a previous attempt will require the applicant to take the entire check/test again.

The Result
There are several methods for evaluating an applicant's performance. National Authorities may select the method which they wish to use. Two methods will be considered here:
A Grading
B Objective Assessment

A Grading

Grading is an option on some forms used for tests/checks. However, its use is optional. The "Acceptable Performance" section of each exercise outlines the grading criteria. These criteria assume no unusual circumstances. Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the applicant. To avoid the need to compensate for such situations, the tests should be conducted under normal conditions whenever possible.

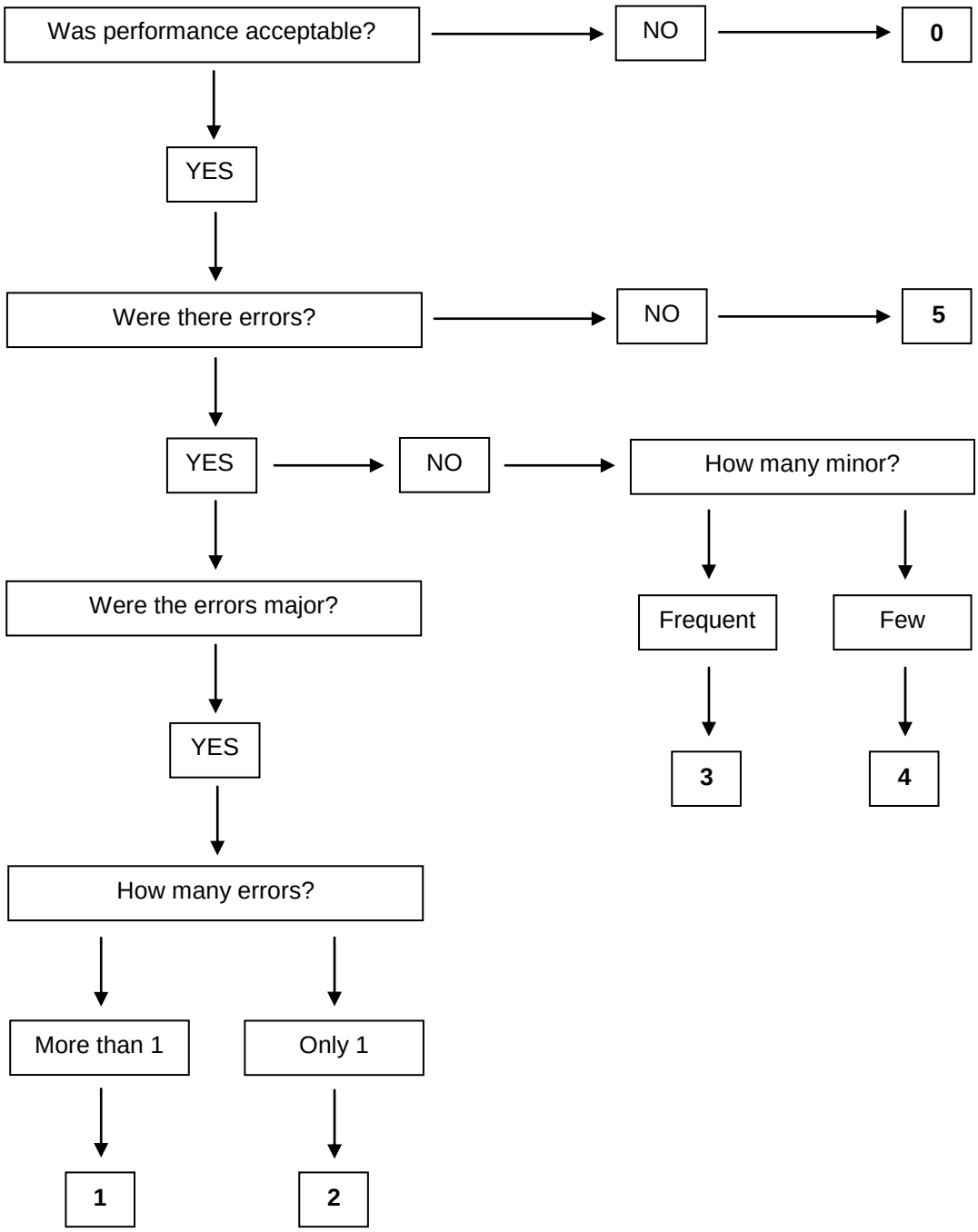
Grade	Description
5	The ideal performance under existing conditions. Anticipates and adapts easily to changing or unusual flight situations.
4	Aim of exercise safely achieved with very few minor variations from ideal. Performance shows smooth control of aeroplane/helicopter.
3	Aim of the exercise safely achieved with frequent minor but no major variations from the ideal.
2	Aim of the exercise safely achieved. Performance includes not more than one major variation from the ideal and may include frequent minor variations from the ideal.
1	Aim of exercise safely achieved in a rough manner. Performance includes more than one major variation from the ideal and indicates a level of skill or knowledge, which results in a marginally acceptable performance.
0	Any one of the following will result in an assessment of fail: • Aim of exercise not completed • Insufficient level of knowledge to ensure safety. • Aim of exercise completed but at expense of using unsafe airmanship and/or handling errors. • Dangerous aeroplane/helicopter handling requiring assistance from examiner. Tolerances specified in the flight test standards exceeded.

Written remarks are required when awarding a flight test exercise a mark of 2 or less. The remarks should be clear and concise and in the case of an exercise assessed as:

Grades 1 or 2 reflect the major variation(s) from the Acceptable Performance for the exercise as outlined in the appropriate flight test standards; or 0 reflect the appropriate item or items that result in an assessment of fail as listed in the Grading Scale section of the flight test Standard(s).

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 provides the Examiner with the opportunity of referencing the appropriate flight test standards while writing final comments.

The diagram shown below will assist the Examiner in following a logical sequence of steps to arrive at a mark when evaluating the applicant’s performance of a particular flight test item. By starting at the top of the diagram and mentally reviewing and answering each question in sequence, it is possible to arrive at a mark to be awarded. The accuracy of the assessment will depend entirely on the Examiner’s knowledge of the Acceptable Performance requirements for each flight test exercise and the Grading Scale.



B Objective Assessment

Satisfactory Performance

The ability of an applicant to safely perform the required assignments is based on:

1. Performing the assignments specified in the Examiner’s Manual for the licence or rating sought within the approved standards
2. Demonstrating control of the aeroplane/helicopter and flight with the successful outcome of each assignment performed never seriously in doubt
3. Demonstrating sound judgement and crew resource management and single-pilot competence if the aeroplane/helicopter is type certificated for single-pilot operations

Unsatisfactory Performance

Consistently exceeding the relevant tolerances stated in Module 5, or failure to take prompt, corrective action when tolerances are exceeded is indicative of unsatisfactory performance. The tolerances represent the performance expected in good flying conditions. Any action or lack thereof, by the applicant, who requires corrective intervention by the Examiner to maintain safe flight, shall be disqualifying.

If a repeat item is not clearly satisfactory, the Examiner shall consider it unsatisfactory

Result

An Examiner will use one of the following terms of assessment:

Quick reference:

Aeroplane

Reference	The Examiner is to check PART-FCL references for pass fail criteria relevant to the test to be conducted. In general the guidance is:
Pass	The applicant shall pass all sections of the skill test or proficiency check
Partial Pass	**For SPA:** If any item in a section is failed, that section is failed. Any applicant failing only one section shall take the failed section again. The applicant retaking only that failed section, plus the departure section often completes the partial pass. Should either of those two be failed at a second attempt then the result of that test if a fail. **For MULTI PILOT AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES:** Any applicant failing 5 or less items shall take the failed items again.
Fail	**For SPA:** If any item in a section is failed, that section is failed. Failure in more than one section will require the applicant to take the entire test/check again. Failure in any section of the re-test/re-check including those sections that have been passed at a previous attempt will require the applicant to take the entire test/check again. **For MULTI PILOT AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES:** The applicant shall pass all sections of the skill test/proficiency check. Failure of more than five items will require the applicant to take the entire test/check again. Failure in any item on the re-test/check including those items that have been passed at a previous attempt will require the applicant to take the entire check/test again. ***AMC2 FCL.1015 PARAGRAPH o (2)*** ***A "fail"*** *provided that any of the following apply:* i. the flight test tolerances have been exceeded after the Examiner has made due allowance for turbulence or ATC instructions; ii. the aim of the test/check is not completed; iii. the aim of exercise is completed but at the expense of unsafe flight, violation of a rule or regulation, poor airmanship or rough handling; iv. an acceptable level of knowledge is not demonstrated; v. an acceptable level of flight management is not demonstrated; or vi. the intervention of the Examiner or safety pilot is required in the interest of safety.
	Should an applicant choose not to continue a test/check for reasons considered inadequate by an Examiner, the applicant shall retake the entire skill test. If the test/check is terminated for reasons considered adequate by the Examiner, only those items/sections not completed will be tested in a further flight.

Quick reference:

Helicopter

Reference	The Examiner is to check PART-FCL references for pass fail criteria relevant to the test to be conducted. In general the guidance is:
Pass	Provided the applicant demonstrates the required level of knowledge, skill/proficiency and, where applicable, remains within the flight test tolerances for the licence or rating
Partial Pass	The partial pass is not always an option on test/check. However, when applicable it is used to indicate that only one section of the test profile was failed. The applicant retaking only that failed section, plus the departure section often completes the partial pass. Should either of those two be failed at a second attempt then the result of that test if a fail.
Fail	***AMC2 FCL.1015 PARAGRAPH o (2)*** A "fail" provided that any of the following apply: i. the flight test tolerances have been exceeded after the Examiner has made due allowance for turbulence or ATC instructions; ii. the aim of the test/check is not completed; iii. the aim of exercise is completed but at the expense of unsafe flight, violation of a rule or regulation, poor airmanship or rough handling; iv. an acceptable level of knowledge is not demonstrated; v. an acceptable level of flight management is not demonstrated; or vi. the intervention of the Examiner or safety pilot is required in the interest of safety.
Incomplete tests	Should an applicant choose not to continue a test/check for reasons considered inadequate by an Examiner, the applicant shall retake the entire skill test. If the test/check is terminated for reasons considered adequate by the Examiner, only those items/sections not completed will be tested in a further flight.

6.8 Post flight - debrief

Post flight procedures will require accurate assessment of the flight and communication to the applicant of his result. The Examiner must:

1. take the time necessary to consider a fair, unbiased and correct assessment of the test/check
2. deliver a clear decision on the result of the test/check with precise details of the reason for each failed item indicating any fail result in a friendly but firm manner.
3. where an existing rating has been failed instruct the applicant on the implications of his result
4. direct the applicant in the administration required following his result

Having completed the flight and the administration the Examiner may then offer guidance on any aspect of the flight.

The following points may be discussed:

1. advise the applicant how to avoid or correct mistakes
2. mention any other points of criticism noted
3. gives any advice considered helpful

Complaints and Appeals

If at any time during or after the test a complaint of a serious nature is made by an applicant on the conduct of his test/check, the Examiner should not become involved in discussion with the applicant. Complaints or appeals shall be dealt with according to Authority regulations

Module 3 – Test Standards Aeroplane

The Tables in this module give a practical guide to the criteria to be considered by the Examiner when assessing each item of PART-FCL aeroplane/helicopter tests and checks. The table should be used in conjunction with the appropriate PART-FCL test schedule.

Introductory Notes
Using a reference system of 7 Phases of Flight the Module 3 table describes the required competency standards for every item of tests or check listed in PART-FCL.

The Phase of Flight headings are:
1. Pre Flight Procedures
2. Take off and Departure Procedure
3. General Handling
4. Enroute procedures
5. Abnormal and Emergency procedures
6. Instrument procedures
7. Arrival and Landing procedures
8. Night Operations (Applies to all phases of flight)

The table is separated into 4 columns as follows:

PHASE OF FLIGHT			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Title of assessed item taken from PART-FCL schedule			
This cell describes what is to be determined by the Examiner.	This cell describes competence criteria that involve the applicant demonstrating knowledge and skills in operating systems or controlling the aeroplane	This cell describes competence criteria in complying with procedures, operating manuals, ATC clearances, published procedures and checklists.	This cell describes competence criteria encapsulated by Airmanship, CRM, decision making, awareness, threat and error management etc.
General			
In most phases of flight there are competencies that apply to a group of manoeuvres e.g. turns, or even the whole phase. In order to avoid repetition, the common competencies are grouped under the 'General' item heading. Examiners must refer to both the 'General' heading criteria and the criteria under the specific item being assessed e.g. 'Turns General' plus 'Steep Turns' as the specific item. Multiple cell borders at the beginning and end of the group identify the group.			

Note:
It is possible sometimes to place a competence in either of 2 columns because physical skills, knowledge etc cannot always be clearly separated; for assessment this is not critical. The intention is to assist the Examiner in identifying what competencies are required for satisfactory performance of a test item and to assist in identifying why an applicant may have failed to achieve a pass in an item.

Airmanship

Several of the test schedules require the assessment of Airmanship. In general and especially for SPA tests this word covers Non-technical areas of competency. Airmanship is the complex of all resources enabling the pilot safely to handle his aircraft with due regard to rules and regulations and good aviation practice, whatever the circumstances, both on the ground and in the air. It is not practical to give a comprehensive list of airmanship considerations, however, the Nontechnical column attempts to describe as many of these items as possible. Errors in this area should not constitute reason for failure unless satisfactory achievement of the Objective or the safety of the flight is compromised. It is the Examiner’s role to observe how the applicant manages the resources available to him to achieve a safe and uneventful flight. If the applicant shows early and consistent awareness of particular airmanship considerations (e.g. repetitive checking of icing conditions in a level cruise clear of icing conditions) the Examiner may allow the applicant to brief only changes during the remainder of the flight.

Examiners are required to exercise proper Airmanship/nontechnical competencies in conducting tests/checks as well as expecting the same from applicants.

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Licences			
To determine that the applicant exhibits knowledge of the elements related to licence and documents by explaining		□ Pilot licence privileges and limitations. □ Medical certificate class and duration and how to renew it. □ Pilot logbook or flight records.	
Flight Documents			
To determine that the applicant exhibits knowledge of the elements related to flight preparation, with regard to:		□ Airworthiness and registration certificates. □ Operating limitations, placards, and instrument markings. □ Weight and balance data and equipment list. □ Airworthiness directives, compliance records, maintenance requirements, and appropriate records. □ NOTAMS	
Weather information			
To determine that the applicant exhibits adequate knowledge of the elements related to aviation weather information by obtaining, reading, and analysing the applicable items such as		□ Weather reports and forecasts. □ Pilot and radar reports. □ Surface analysis charts. □ Radar summary charts. □ Significant weather prognostics. □ Winds and temperatures	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		aloft. - Freezing level charts - Stability charts. - Severe weather outlook charts. - Tables and conversion graphs. - SIGMETs. - ATIS and VOLMET reports. - Correctly analyses the assembled weather information pertaining to the proposed route of flight and destination aerodrome, and determines whether an alternate aerodrome is required, and, if required, whether the selected alternate aerodrome meets the regulatory requirement. - Makes a competent "go/no-go" decision based on available weather information. - Completes the appropriate checklist.	
National Airspace System			
To determine that the applicant exhibits knowledge of the		- Basic VFR Weather Minimums - for all classes	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
elements related to the National Airspace System by explaining:		of airspace. □ Airspace classes – their boundaries and specifications IFR/VFR for the following : o Class A. o Class B. o Class C. o Class D. o Class E. o Class F. o Class G. □ Special use airspace and other airspace areas.	
Preparation of Flight Plan			
To determine that the applicant exhibits adequate knowledge of the elements by presenting and explaining a pre-planned flight as previously assigned by the Examiner (pre-planning at Examiner's discretion). The Examiner must ensure that the Applicant: *Note:*		□ Exhibits adequate knowledge of the aeroplane's performance capabilities by calculating the estimated time en-route and total fuel requirement based upon such factors as o Power settings. o Operating altitude or flight level. o Wind. o Fuel reserve requirements. □ Selects and correctly	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
The flight should be planned using marginal weather conditions and conform to the regulatory requirements for flight rules within the airspace in which the flight will be conducted.		interprets the current and applicable en-route charts, maps, SID (standard instrument departure), STAR (standard terminal arrival), and standard instrument approach procedure charts, as appropriate to the flight. □ Obtains and correctly interprets applicable NOTAM information. □ Determines the calculated performance is within the aeroplane's capability and operating limitations. □ Completes and files a flight plan in a manner that accurately reflects the conditions of the proposed flight.	
Mass and Balance Calculation			
To determine that the applicant:	□ Computes the centre-of-gravity location for a specific load condition (as specified by the Examiner), including adding, removing, or shifting mass. □ Determines if the	□ Demonstrates good planning and knowledge of procedures in applying operational factors affecting aeroplane performance.	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	computed centre of gravity is within the forward and aft centre-of-gravity limits, and that lateral fuel balance is within limits for takeoff and landing.		
Performance Calculation			
To determine that the applicant exhibits adequate knowledge of performance and limitations, including:	□ A thorough knowledge of the adverse effects of exceeding any limitation. □ Proficient use of (as appropriate to the aeroplane) performance charts, tables, graphs, or other data relating to items such as: o Accelerate-stop distance. o Accelerate-go distance. o Takeoff performance-all engines, engine(s) inoperative. o Climb performance including segmented climb performance; with all engines operating-with one or more engine(s)		

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	inoperative, and with other engine malfunctions as may be appropriate. o Service ceiling-all engines, engine(s) inoperative(s), including drift down, if appropriate. o Cruise performance. o Fuel consumption, range, and endurance. o Descent performance. o Go-around from rejected landings. o Operational factors affecting aeroplane performance. o Other performance data appropriate to the test aeroplane. □ Describing (as appropriate to the aeroplane) the airspeeds used during specific phases of flight. □ Describing the effects of meteorological conditions upon performance characteristics and correctly applies these factors to a specific chart,		

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	table, graph or other performance data.		
Theoretical Knowledge			
To determine that the applicant exhibits adequate knowledge appropriate to the aeroplane; its systems and components; its normal, abnormal, and emergency procedures; and uses the correct terminology with regard to the following items: Note: Applicants must exhibit adequate knowledge of the contents of the Pilot's Operating Manual or AFM with regard to the systems and components listed; the Minimum Equipment List (MEL), if appropriate; and the Operations Specifications, if applicable	The Examiner is expected to question the applicant on a selection from the following list. □ Landing gear-indicators, brakes, antiskid, tyres, nose-wheel steering, and shock absorbers. □ Engine-controls and indications, induction system, carburettor and fuel injection, turbocharging, cooling, fire detection/protection, mounting points, turbine wheels, compressors, and de-icing, anti-icing, and other related components. □ Propellers-type, controls, feathering/unfeathering, autofeather, negative torque sensing, synchronising, and synchrophasing. □ Fuel system-capacity; drains; pumps; controls; indicators; crossfeeding;		

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	transferring; jettison; fuel grade, colour and additives; fuelling and defueling procedures; and substitutions, if applicable. - Oil system-capacity, grade, quantities, and indicators. - Hydraulic system-capacity, pumps, pressure, reservoirs, grade, and regulators. - Electrical system-alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings. - Environmental systems heating, cooling, ventilation, oxygen and pressurisation, controls, indicators, and regulating devices. - Avionics and communications-autopilot; flight director; Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); Radar; Inertial Navigation Systems		

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	(INS); Global Positioning System (GPS); VOR, NDB, ILS/MLS, RNAV systems and components; indicating devices; transponder; emergency locator transmitter, TCAS, EGPWS. - Ice protection-anti-ice, de-ice, pitot-static system protection, propeller, windshield, wing and tail surfaces. - Crewmember and passenger equipment-oxygen system, survival gear, emergency exits, evacuation procedures and crew duties, and quick donning oxygen mask for crewmembers and passengers. - Flight controls-ailerons, elevator(s), rudder(s), winglets, control tabs, balance tabs, stabiliser, flaps, spoilers, and leading edge flaps/slats and trim systems. - Pitot-static system with associated instruments and		

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	the power source for the flight instruments.		
Inspection of Aeroplane and Equipment			
To determine that the applicant exhibits knowledge of the following elements: *Note:* *If a flight engineer is a required crewmember for a particular type aeroplane, the actual visual inspection may be waived. The actual visual inspection may be replaced by using an approved pictorial means that realistically portrays the location and detail of inspection items. On aeroplanes requiring a flight engineer, a candidate must demonstrate adequate knowledge of the flight engineer functions for the safe completion of the flight if the flight engineer becomes ill or incapacitated during a flight.*		□ Required instruments and equipment for day VFR.(night if applicable) □ Procedures and limitations for operating the aeroplane with inoperative instruments. □ Exhibits adequate knowledge of the pre-flight inspection procedures including: o The purpose of inspecting the items which must be checked o How to detect possible defects. o The corrective action to take. o Process for obtaining an MEL to include a letter of authorisation. o When a special flight permit would be required.	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		o Procedures for obtaining a special flight permit. - Exhibits adequate knowledge of the operational status of the aeroplane by locating and explaining the significance and importance of related documents such as: o Airworthiness and registration certificates. o Operating limitations, manuals. o Mass and balance data. o Maintenance requirements, tests, and appropriate records applicable to the proposed flight or operation; and maintenance that may be performed by the pilot - Uses the checklist to inspect the aeroplane externally and internally. - Verifies the aeroplane is safe for flight by	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		emphasising (as appropriate) the need to look at and explain the purpose of inspecting items such as: o Engine, including controls and indicators. o Fuel quantity, grade, type, contamination safeguards, and servicing procedures. o Oil quantity, grade, and type. o Hydraulic fluid quantity, grade, type, and servicing procedures. o Oxygen quantity, pressures, servicing procedures, and associated systems and equipment for crew and passengers. o Hull, landing gear, float devices, brakes, and steering system. o Tires for condition, inflation, and correct mounting, where applicable. o Fire protection/ detection systems for	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		proper operation, servicing, pressures, and discharge indications. o Pneumatic system pressures and servicing. o Ground environmental systems for proper servicing and operation. o (Reserved) o Flight control systems including trim, spoilers, and leading/trailing edge. o Anti-ice, de-ice systems, servicing, and operation. o Location and check of loose emergency equipment. □ Co-ordinates with ground crew and ensures adequate clearance prior to moving any devices such as door, hatches, and flight control surfaces. □ Complies with the provisions of the	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		appropriate Operations Specifications, if applicable, as they pertain to the particular aeroplane and operation. - Demonstrates proper operation of all applicable aeroplane systems. - Notes any discrepancies, determines if the aeroplane is airworthy and safe for flight, or takes the proper corrective action. - Checks the general area around the aeroplane for hazards to the safety of the aeroplane and personnel. - Makes a correct passenger, *crew* and departure briefing - Performs all items up to start procedures by systematically following the check list items.	
Engine starting			
To determine that the applicant exhibits adequate knowledge of the correct engine start procedures including:		- Use of an auxiliary power unit (APU) or external	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		power source (GPU and/or ASU). - Starting under various atmospheric conditions, normal and abnormal starting limitations, and the proper action required in the event of a malfunction. - Ensuring the ground safety procedures are followed during the before-start, start, and after-start phases. - Ensuring the use of appropriate ground crew personnel during the start procedures. - All items of the start procedures by systematically following the approved briefing/checklist items for the before-start, start, and after-start phases. - Demonstrates sound judgement and operating practices in those instances where specific instructions or briefing/checklist items are	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		not published. - Completes the appropriate briefing/checklist.	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Taxiing			
To determine that the applicant exhibits adequate knowledge of safe taxi procedures:	□ Demonstrates proficiency by maintaining correct and positive aeroplane control. □ Maintains proper spacing on other aeroplane, obstructions, and persons.	□ Exhibits adequate knowledge of safe taxi procedures (as appropriate to the aeroplane including push-back or powerback, as may be applicable). □ Accomplishes the applicable briefing/checklist items and performs recommended procedures. □ Complies with instructions issued by ATC (or the Examiner simulating ATC). □ Observes runway hold lines, localizer and glide slope critical areas, beacons, and other surface control markings and lighting.	□ Maintains constant vigilance and lookout during taxi operation. □ Demonstrates correct crew co-ordination (MPA) □ Divides attention properly inside and outside cockpit. □ Obtains appropriate clearance before crossing/entering active runways.
Before Take-off			
To determine that the applicant exhibits adequate knowledge of the pre-take-off procedures and actions:	□ Ensures that all systems are within their normal operating range prior to beginning, during the performance of, and at the completion of those checks required by the approved checklist. □ Ensures that the aeroplane is correctly configured for	□ Exhibits adequate knowledge of the pre-takeoff checks by stating the reason for checking the items outlined on the checklist and explaining how to detect possible malfunctions. □ Explains, as may be requested by the	□ Divides attention properly inside and outside cockpit. □ Determines if the aeroplane is safe for the proposed flight or requires maintenance. □ Ensures that correct crew and passenger briefings are completed □ Ensures or confirms that passengers, crew etc are

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	take-off	Examiner, any normal or abnormal system-operating characteristic or limitation and the corrective action for a specific malfunction. □ Determines the aeroplane's takeoff performance, considering such factors as wind, density altitude, weight, temperature, pressure altitude, and runway condition and length. □ Completes the appropriate checklist.	correctly secured for take-off. □ Obtains appropriate take-off clearance using standard R/T phraseology □ Notes any surface conditions, obstructions or other hazards that might hinder a safe takeoff.
Take-off (General)			
To determine the Applicant exhibits adequate knowledge of normal takeoffs and climbs including (as appropriate to the aeroplane) airspeeds, configurations, and emergency/ abnormal procedures.	□ Aligns the aeroplane on the runway centreline. □ Applies the controls correctly to maintain longitudinal alignment on the centreline of the runway prior to initiating and during the take-off. □ Correctly sets take-off power. □ Adjusts the controls to attain the desired pitch attitude at the predetermined airspeed to	□ Verifies and correctly applies correction for the existing wind component to the takeoff performance. □ Completes required checks prior to starting takeoff to verify the expected engine performance. Performs all required pre-takeoff checks. □ Monitors engine controls, settings, and instruments during takeoff to ensure all predetermined parameters	□ Correct crew co-ordination as required by type of operation (MPA) □ Correctly assesses aeroplane acceleration during take-off. □ Correctly assesses take-off and climb hazards particularly those related to obstacles.

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	obtain the desired performance. □ Maintains the appropriate climb attitude. □ Performs or calls for and verifies the accomplishment of gear and flap retractions, power adjustments, and other required pilot related activities at the required airspeeds within the tolerances established in the Pilot's Operating Manual or AFM. □ Adjusts the engine controls as recommended by the approved guidance for the existing conditions. □ Achieves the appropriate airspeeds and climb segment airspeeds. □ Maintains desired heading.	are maintained. □ Uses the applicable noise abatement and wake turbulence avoidance procedures, as required. □ Completes the appropriate briefing and checklist.	
Instrument Take-off	**see Take-off (General)**		
To determine that the applicant exhibits adequate knowledge of an instrument takeoff with instrument meteorological conditions simulated at or before reaching an altitude of	□ Sets the applicable radios/flight instruments to the desired setting prior to initiating the takeoff. □ Transitions smoothly and accurately from visual	□ Accomplishes the appropriate briefing/checklist items to ensure that the aeroplane systems applicable to the instrument takeoff are	□ Takes into account, prior to beginning the takeoff, operational factors which could affect the manoeuvre such as Takeoff Warning Inhibit Systems or other

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
100 feet (30 meters) AGL:	meteorological conditions to actual or simulated instrument meteorological conditions.	operating properly. □ Complies with ATC clearances and instructions issued by ATC (or the Examiner simulating ATC).	aeroplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.
Crosswind Take-off	**see Take-off (General)**		
To determine that the applicant exhibits adequate knowledge of crosswind takeoff and climb techniques: *Note:* *If no crosswind condition exists, the use of proper techniques may be orally checked.*	□ Sets correct configuration and applies correct thrust setting technique for cross wind take-off and makes suitable adjustments to airspeed as required. □ Applies the controls correctly for the cross wind condition, to maintain longitudinal alignment on the centreline of the runway prior to initiating and during the takeoff. □ Transitions smoothly and accurately from the runway, into balanced, climbing flight maintaining the runway centreline.	□ Ensures operation of the aircraft within the airframe limitations as determined by the Pilots' Operating Manual / AFM and Operations Manual, as appropriate	□ Correctly assesses the cross wind component
Short field Operations	**see Take-off (General)**		
To determine that the applicant exhibits adequate knowledge of short-field take-off and initial		□ Determines maximum performance, configuration, power and airspeeds in	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
climb:	□ Sets correct configuration for short field take-off, applies correct thrust setting technique and makes suitable adjustments to airspeed as required. □ Taxies into the takeoff position so as to allow maximum utilisation of available takeoff area and aligns the aeroplane on the runway centreline. □ Rotates at the recommended airspeed, lifts off and accelerates to the recommended obstacle clearance airspeed or V_X. □ Establishes the pitch attitude for the recommended obstacle clearance airspeed, or V_X and maintains that airspeed until the obstacle is cleared, or until the aeroplane is 50 feet (20 meters) above the surface whichever is greater. □ After clearing the obstacle,	accordance with Operations Manual or AFM.	

Take Off and Departure Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	accelerates to and maintains best rate of climb airspeed or V_y, Maintains takeoff power to a safe manoeuvring altitude. □ Maintains directional control and proper wind-drift correction throughout the takeoff and climb.		
Take-off at Maximum Mass	**see Take-off (General)**		
To determine that the applicant exhibits knowledge of the elements of takeoff and climb at maximum take-off mass:	□ Sets correct configuration for maximum mass take-off and makes suitable adjustments to airspeed as required. □ Positions and aligns the aeroplane for maximum utilisation of available takeoff area. □ Establishes the pitch attitude for the recommended obstacle clearance airspeed, or V_X and maintains that airspeed until the obstacle is cleared, or until the aeroplane is 50 feet (20 meters) above the surface. □ Establishes correct obstacle clearance track during climb.	□ Determines maximum performance, configuration, power and airspeeds in accordance with Operations Manual or AFM.	

Take Off and Departure Procedures (Aerodrome Departure)			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
ATC Clearances			
To determine that the applicant exhibits adequate knowledge of the elements related to ATC clearances and pilot/controller responsibilities to include tower en-route control and clearance *Note:* *The ATC clearance may be an actual or simulated ATC clearance based upon the flight plan.*	□ Sets the appropriate communication and navigation frequencies and transponder codes in compliance with the ATC clearance.	□ Determines that it is possible to comply with ATC clearance □ Uses standard phraseology when reading back clearance.	□ Copies correctly, in a timely manner, the ATC clearance as issued. □ Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. □ Reads back correctly, in a timely manner, the ATC clearance in the sequence received.
IFR/VFR Departures			
To determine that the applicant exhibits adequate knowledge of VFR or IFR departure procedures:	□ Makes correct use of Instruments, flight director, autopilot, navigation equipment and communication equipment appropriate to the performance of the procedure. □ Intercepts, in a timely manner, all courses,	□ Uses the current and appropriate navigation publications for the proposed flight. □ Performs the aeroplane briefing/checklist items appropriate to the departure. □ Establishes communications with ATC, using proper phraseology. □ Complies, in a timely	□ Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. □ Demonstrates terrain awareness, orientation, division of attention, and proper planning. □ Ensures that correct crew and passenger briefings are completed. □ Liaises with other

Take Off and Departure Procedures (Aerodrome Departure)			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	radials, and bearings (QDM/QDR's) appropriate to the procedure, route, ATC clearance, or as directed by the Examiner. - Maintains the appropriate airspeed, altitude, headings.	manner, with all ATC clearances, instructions, and restrictions. - Exhibits adequate knowledge of two-way communications failure procedures. - Adheres to airspeed restrictions and adjustments required by regulations, ATC, the Pilot's Operating Manual, the AFM, and the Examiner. - Complies with the provisions of the climb profile, SID, and other departure procedures, as appropriate. - Performs correct altimetry procedures, in accordance with the regulations, operational procedures and ATC requirements. - Completes the appropriate checklist.	crewmembers for correct operation of the aircraft systems during departure. (MPA) - Demonstrates orientation, division of attention, and proper planning. - In VMC, demonstrates adequate lookout and traffic avoidance.

General Handling or Manoeuvres			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Normal Operation of All Systems			
To determine that the applicant possesses adequate knowledge of the normal and abnormal procedures of the systems, subsystems, and devices relative to the aeroplane type (as may be determined by the Examiner)	□ Demonstrates the proper use of the aeroplane systems, subsystems, and devices (as may be determined by the Examiner) appropriate to the aeroplane.	□ Completes the appropriate checklist □ Follow correct procedures for controlling the aircraft with or without automatic flight control systems, in accordance with the Aircraft / Systems Manual and Operations manual, as appropriate	□ Liaise with other crewmembers for correct operation of the aircraft systems.
Aeroplane control (General)			
To determine that the Applicant exhibits safe control of the aeroplane throughout the flight and any manoeuvres required by the Examiner: *Note:* *Where PART FCL requires Instrument flight to be demonstrated, Simulated IMC conditions must be generated by a means acceptable to the National Authority and the Examiner. This method is to be agreed with the applicant before flight.*	Exhibits safe control of the aeroplane by observing: □ Magnitude of control input □ Smoothness of control, within the limitations of the airframe and control systems.	□ Demonstrates correct use of cockpit check lists □ Demonstrates management and monitoring of engine(s) and other aeroplane systems. □ Follows correct procedures for controlling the aircraft with automatic flight control systems, in accordance with the Pilots' Operating Manual / AFM and Operations manual, as appropriate.	□ Maintains adequate lookout, before, during and after execution of any manoeuvre by visual references. □ Demonstrates correct crew co-ordination as required by type of operation (MPA) □ Divides attention properly inside and outside cockpit. □ Demonstrates orientation throughout the manoeuvres. □ Ensures that correct crew and passenger briefings are completed.

General Handling or Manoeuvres			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Turns (General)			
To determine that the Applicant exhibits safe control of the aeroplane by reference to visual attitudes (and by instruments where appropriate to the flight) and is able to;	□ Transition to the turning attitude, using proper instrument crosschecks and co-ordinated control application. □ Turn onto specific visual references and headings by visual references (and solely by reference to instruments where appropriate to the flight).	□ Follow correct procedures for the controlling the aircraft with/without automatic flight control systems, in accordance with the Aircraft / Systems Manual and Operations manual, as appropriate	□ Maintain adequate lookout, before, during and after turning by visual references. □ Demonstrate orientation throughout the manoeuvre □ Liaise with other crew members for lookout (MPA) □ Follow appropriate SOP for the confirmation of intended heading (MPA)
Medium Turns (30º bank)	**see Aeroplane Control (General) and Turns (General)**		
To determine that the applicant exhibits safe control of the aircraft during level, constant airspeed, medium (30° bank) turns and;	□ Establishes the configuration specified by the Examiner. □ Maintains the assigned altitude and airspeed throughout the turn		

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Steep Turns (45º bank or More) **see Aeroplane Control (General) and Turns (General)**			
To determine that the applicant exhibits adequate knowledge of steep turns (if applicable to the aeroplane) and the factors associated with performance, wing loading, angle of bank, stall speed, pitch, power requirements, and over-banking tendencies:	□ Selects a safe height as recommended by the manufacturer, training syllabus, or other training directive, or as agreed with the Examiner. □ Establishes the recommended entry airspeed, in straight and level flight. □ Rolls into a co-ordinated turn of 360º with a bank angle of not less than 45º. Maintains the bank angle in a stable, balanced turn. □ Applies smooth co-ordinated pitch, bank, and power adjustments to maintain the specified altitude, attitude and airspeed. □ Avoids any indication of an approaching stall, abnormal flight attitude, or exceeding any structural or operating limitation during any part of the manoeuvre. □ Rolls out of the turn, stabilises the aeroplane in straight-and level flight or, at the discretion of the		

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	Examiner, reverses the direction of turn and repeats the manoeuvre in the opposite direction. □ Recovers accurately onto the desired heading and at the desired airspeed for straight and level flight.		
Aeroplane Specific Handling Including Critical Mach No., Buffet and Tuck Under. see Aeroplane Control (General)			
To determine that the applicant exhibits knowledge of, and recognises, the elements related to Tuck under and Mach buffets, after reaching the critical Mach number, and other specific flight characteristics of the aeroplane (e.g. Dutch Roll): Note: An aeroplane must not be used for this exercise	□ Establishes the recommended configuration and airspeed/Mach, and maintain that airspeed/Mach □ Uses proper technique to enter into, operate within, and recover from, specific flight situations.		

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Straight and level flight at constant speed and with speed changes see Aeroplane Control (General)			
Objective: To determine that the Applicant exhibits safe control of the aircraft, by reference to visual attitudes (and by instruments where appropriate) in balanced, straight and level flight:	□ Maintains altitude, heading and balance, by visual references (and solely by reference to instruments, if applicable to flight) using correct instrument confirmation, and co-ordinated control application. □ Maintains altitude, heading and balance, whilst accelerating / decelerating to specific speeds, as determined by the Aircraft Flight, Operations or Training manual, or as specified by the Examiner. □ Maintains altitude, heading and balance, at different airspeeds, power settings and configurations as determined by the Aircraft Flight / Operations or Training manuals or as specified by the Examiner.		

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Climbs (General)	**see Aeroplane Control (General)**		
To determine that the applicant exhibits knowledge of the elements related to climbing at different speeds and configurations, by visual references (and solely by reference to instruments, if applicable to flight) throughout all operational levels of the aeroplane:	□ Transitions to the climb power setting and pitch attitude, on an assigned heading, using proper instrument crosschecks and interpretation, and co-ordinated control application. □ Demonstrates climbing at correct airspeed, to specific altitudes / levels, in straight flight, and whilst turning onto specific headings. □ Levels off at the assigned altitude or level and establishes straight and level cruise.	□ Applies correct altimeter setting procedures as appropriate to the level change required.	□ Uses correct RT phraseology for level change requests and instructions from ATC □ Follows appropriate procedure for the confirmation of intended level (MPA)
Climbing at Vy	**see Aeroplane Control (General) and Climbs (General)**		
To determine that the applicant exhibits knowledge of the performance elements relevant to climbing the best rate of climb in accordance with the Pilots' Operating Manual / AFM:	□ Establishes best rate of climb speed and configuration, specified in the Pilots' Operating Manual / AFM.	□ Demonstrates knowledge of climb performance and procedures.	

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Climbing at Vx	**see Aeroplane Control (General) and Climbs (General)**		
To determine that the applicant exhibits knowledge of the performance elements relevant to climbing at the best angle of climb (obstacle clearance climb) in accordance with the Pilots' Operating Manual / AFM:	□ Establishes best angle of climb speed and configuration, specified in the Pilots' Operating Manual / AFM. □ Turns onto specified headings whilst preserving the best angle of climb. □ Transitions to climbing flight at best rate or other configuration, as determined by the Examiner.	□ Demonstrates knowledge of obstacle clearance climb requirements	
Flight at Critically High Airspeed	**see Aeroplane Control (General)**		
To determine that the applicant exhibits knowledge of the elements related to critically high airspeeds.	□ Recognises the critical high airspeed. □ Establishes the recommended configuration and airspeed, and maintains that airspeed □ Controls aeroplane smoothly within aeroplane limitations.	□ Follows the appropriate action in accordance with the flight manual	
Flight at Critically Low Airspeed	**see Aeroplane Control (General)**		
Objective: To determine that the applicant	□ Recognises the critical low airspeed.	□ Follows the appropriate action in accordance with	

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
exhibits knowledge of the elements related to critically low airspeed.	□ Establishes the recommended configuration and airspeed, and maintains that airspeed and desired heading □ Controls aeroplane smoothly within aeroplane limitations.	the flight manual	
Stalling General	**see Aeroplane Control (General)**		
To determine that the applicant exhibits adequate knowledge of the factors which influence stall characteristics, including the use of various drag configurations, power settings, pitch attitudes, mass, and bank angles. Also, exhibits adequate knowledge of the proper procedure for resuming normal flight:	□ Slowly establishes the pitch attitude (using trim or elevator/stabiliser), bank angle, and power setting that will induce stall at the desired target airspeed. Trim must not be used at less than 1.3 of Vs □ Recognizes and announces the first indication of a stall appropriate to the specific aeroplane design and initiates recovery as directed by the Examiner. □ Recovers to a reference airspeed, altitude and heading, allowing only the acceptable altitude or	□ Selects an entry altitude in accordance with safety requirements. When accomplished in an FTD or flight simulator, the entry altitude may be at low, intermediate, or high altitude as appropriate for the aeroplane and the configuration, at the discretion of the Examiner □ Completes appropriate before stalling checklist.	□ Ensures the aeroplane is in a safe area and clear of hazards prior to accomplishing an approach to a stall.

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	airspeed loss, and heading deviation using manufacturers recommended technique. □ Demonstrates smooth, positive control during entry, approach to a stall, and recovery.		
Full Stall & Recovery in the Clean Configuration see Aeroplane Control (General) and Stalling (General)			
To determine that the applicant exhibits adequate knowledge of the full stall and recovery with entry from level flight with gear and flaps retracted:	□ Maintains level flight and desired heading on entry. □ Recovers at the first sign of the full stall or as directed by Examiner.		
Approach to Stall & Recovery in Different Configurations see Aeroplane Control (General) and Stalling (General)			
To determine that the applicant exhibits knowledge of the elements related to manoeuvring during slow flight and approaching a stall in various configurations:	□ Configures the aeroplane as required by the Examiner, from level flight, or descending as if on an approach path. □ Recovers at the first indication of an impending stall as appropriate to aeroplane design, and initiates recovery or as	□ Selects an entry altitude in accordance with AFM or POH. □ Completes the appropriate briefing/checklist including go-around or after take-off checks.	

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	directed by the Examiner. □ Retracts gear and flaps as appropriate.		
Descent With and Without Power see Aeroplane Control (General)			
To determine that the applicant exhibits knowledge of the elements related to visual attitude/instrument flying during straight, constant airspeed and constant rate descents:	□ Establishes the descent configuration □ Transitions to the descent pitch attitude and power setting on an assigned heading using proper instrument crosscheck and interpretation, and co-ordinated control application. □ Level off at the assigned altitude with correct co-ordination of power, attitude and balance. □ Achieves straight and level flight at the assigned altitude, at the correct speed, heading and in trim.	□ Apply correct changes to altimeter settings as appropriate to the level change required. □ Use correct RT phraseology for level change requests and instructions from ATC.	
Recovery from Unusual Attitudes (visual and instrument flying) see Aeroplane Control (General)			
To determine that the applicant exhibits knowledge of the elements related to attitude flying during recovery from unusual attitudes.	□ Recovers promptly to a stabilised level flight attitude using smooth, co-ordinated control application in the correct		□ Demonstrates orientation, division of attention, and proper planning. □ Recognises unusual flight attitudes.

General Handling			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Note: Includes recovery from spiral dive.	sequence using visual attitude flying or instruments as required. □ Avoids exceeding airframe limitations.		
Limited Panel Instrument Flying see Aeroplane Control (General)			
To determine that the applicant exhibits knowledge of the elements related to attitude instrument flying with limited panel during straight-and-level flight, straight, constant airspeed climbs, straight constant airspeed descents, turns to headings and unusual attitudes solely by reference to the basic flight instruments to simulate a system failure, a failure of the vacuum- and gyro-powered instruments (e.g. the attitude and heading indicators) using proper instrument crosscheck and interpretation, and co-ordinated control application	□ Does not exceed airframe limitations. □ Turns using no more than rate 1. □ When making small heading corrections with the magnetic compass - when tracking a VOR radial or localizer — use timed turns □ Does not chase instrument indications or is not overcontrolling □ Maintains a proper instrument scan. □ Maintains heading altitude and airspeed within the prescribed limits	□ Turns on the pitot heat well before flying in cloud or visible precipitation no matter what the temperature. □ Opens a dedicated alternate source of static air for the aeroplane's pitot-static instruments. □ Completes the appropriate checklist. □ Use correct R/T procedures with ATC.	□ Demonstrates orientation, division of attention, and proper planning.

Enroute Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Flight Planning			
To determine that the applicant exhibits knowledge of flight planning by planning a VFR navigation flight as assigned by the Examiner. The flight shall be planned using latest forecast/actual weather.	□ Plots a course for the intended route of flight. □ Identifies airspace, obstructions, and terrain features. □ Selects easily identifiable en route checkpoints. □ Selects the most favourable altitudes. □ Computes headings, flight time, and fuel requirements. □ Selects appropriate navigation systems/facilities and communication frequencies. □ Confirms availability of alternate aerodromes.	□ Uses appropriate current aeronautical charts. □ Extracts and records pertinent information from NOTAM'S, the Aerodrome/Facility Directory, and other flight publications. □ Completes a navigation log and files a VFR flight plan.	
VFR Navigation (Dead reckoning, Map reading and Orientation.)			
To determine that the applicant exhibits knowledge of the elements related VFR navigation.	□ Follows the pre-planned track solely by reference to landmarks. □ Identifies landmarks by relating surface features to chart symbols. □ Navigates by means of pre-computed headings, groundspeeds, and	□ Corrects for and records the differences between pre-flight fuel, groundspeed, and heading and time calculations and those determined en route. □ Completes all appropriate checklists.	□ Divides attention properly inside and outside cockpit. □ Demonstrates orientation, division of attention, and proper planning □ Maintains adequate lookout for other air traffic.

Enroute Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	elapsed time. - Verifies the aeroplane's position in relation to the flight-planned route. - Correctly assesses track error and makes suitable adjustments to heading. - Arrives at the en route checkpoints and destination at the revised ETA.	- Uses correct altimetry procedures.	
Navigation Systems & Radar Services			
To determine that the applicant exhibits knowledge of the elements related to navigation systems and radar services.	- Locates the aeroplane's position using radials, bearing (QDM/QDR's), DME range or co-ordinates, as appropriate. - Intercepts and tracks a given radial or bearing (QDM/QDR), if appropriate. - Recognises and describes the indication of station passage, if appropriate. - Recognises signal loss and takes appropriate action.	- Selects, identifies and checks the appropriate navigation system/facility. - Uses proper communication procedures when utilising ATC radar services - Completes all appropriate checklists - Uses the appropriate level of service for phase of flight	

Enroute Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Lookout & Collision Avoidance			
To determine that the applicant exhibits collision avoidance by adequate lookout. In IMC makes suitable use of radar services or other sources of traffic information to avoid collision.	☐ Uses proper visual scanning technique. ☐ Understands relationship between poor visual scanning habits and increased collision risk. ☐ Uses TCAS or other collision avoidance equipment if fitted. ☐ Takes appropriate avoiding action if required.		☐ Correctly divides attention inside and outside the cockpit. ☐ Correctly shares lookout and collision avoidance task with other crew members ☐ Uses correct R/T procedure for collision avoidance. ☐ Uses correct TCAS procedure where appropriate. ☐ Requests correct level of radar service appropriate to flight conditions. ☐ Avoids situations that involve the greatest collision risk.
Maintenance of Altitude, Heading & Speed			
To determine that the applicant is able to fly accurately while carrying out other activities such as navigation.	☐ Maintains straight-and-level flight by visual attitude flying (or solely by reference to instruments in IMC) using proper instrument crosscheck and interpretation, and co-ordinated control application. ☐ Maintains the applicable airspeed, headings and altitude	☐ Completes checklist items	☐ Demonstrates correct crew co-ordination

Enroute Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Altimeter Setting			
To determine that the applicant applies correct altimeter setting procedures:		□ Applies correct altimeter sub scale settings for each stage of flight □ Carries out altimeter checks and altitude call–out in accordance with Operations Manual.	□ Demonstrates correct crew co-ordination as required by type of operation (MPA)
Timing & Revision of ETA's			
To determine that the applicant correctly assesses and adjusts timing (ETA) Note: Also see VFR Navigation	□ Ensures arrival at navigation point at ETA	□ Monitors flight progress and uses flight plan to give estimated time of arrival (ETA) at navigation points. □ Revises ETA when appropriate.	
Monitoring of Flight Progress, Flight Log, Fuel Usage, Instrument Monitoring			
To determine that the applicant can maintain good cockpit management, monitor the flight and keep suitable records.		□ Maintains a flight log of Clearances, position fixes, times, ETAs, fuel states, and information as required by Operating Procedures, such that the flight may be reconstructed from the log after landing.	□ Manages cockpit duties in an efficient manner. □ Ensures correct division of crew duties. □ Monitors fuel usage. □ Monitors aircraft systems and instruments.
Observation of Weather Conditions			
To determine that the applicant is able to assess weather	□ Exhibits adequate knowledge of the elements	□ Complies with Operations Manual or aircraft manual	□ Exhibits adequate assessment when VFR flight

Enroute Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
conditions, decide whether flight may continue in accordance with VFR, or plan and execute alternative action.	of observation of weather conditions and obtaining preflight weather briefings and in-flight weather information.	weather limitations.	is proposed and sky conditions or visibilities are present, or forecast, that would make flight under VFR doubtful. □ Exhibits adequate assessment of winds aloft. □ Exhibits adequate assessment of current and reported weather conditions. □ Makes satisfactory GO/NO GO or in-flight decisions based on correct assessment of weather conditions. □ Plans and correctly executes weather avoidance when necessary in-flight.
Diversion to Alternate Destination/Aerodrome			
To determine that the applicant exhibits adequate knowledge of planning and executing a diversion from pre-planned track to an alternative destination/aerodrome Note: Diversion to a new destination is normally initiated by the Examiner	□ Maintains the applicable airspeed, headings and altitude □ Exhibits adequate navigational skill to reach destination within time limit.	□ Completes the appropriate checklist. □ Obtains appropriate ATC service. □ Completes flight log. □ Complies with Operations Manual procedures.	□ Selects an appropriate alternate aerodrome if necessary. □ Plans a suitable route to the new destination. □ Diverts promptly toward the new destination □ Makes an accurate estimate of heading, groundspeed, arrival time, and fuel consumption to the alternate

Enroute Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
			aerodrome/destination
Intercepting & Tracking Radio Navigation Aids (VOR, NDB, DME)			
To determine that the applicant exhibits adequate knowledge of the use of Radio Navigation aids, and is able to intercept and maintain specified bearings or radials or tracks.	□ Intercepts and tracks a specific bearing/radial (QDM/QDR) to or from the NDB facility, using appropriate interception procedures. □ Intercepts and tracks a specific DME arc if required, using appropriate interception procedures. □ Maintains, while intercepting and tracking, the applicable airspeed, headings and altitude. □ Applies proper correction for wind to maintain track.	□ Correctly tunes and identifies the facility. □ Correctly sets cockpit displays (HSI, RMI etc.) □ Correctly monitors the facility for failure (failure flags, coding etc as appropriate) □ Recognises facility failure, and, when required, reports the failure to ATC. □ Determines accurately the relative bearing (QDM/QDR) of the VOR/ NDB facility. □ Determines the aircraft position relative to the facility. □ Completes the appropriate checklist.	□ Correctly utilises crew to operate equipment and identify navigational aids (MPA)
Ice Protection Procedures			
To determine that the applicant exhibits knowledge of the elements related to ice	□ Inspects all surfaces of the aeroplane with emphasis on ice.	□ Taxies and accomplishes the before takeoff check adhering to good operating	□ Monitors ice accretion during flight. □ Plans and executes ice

Enroute Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
protection equipment and procedures.	□ Clears all surfaces of ice before flight □ Operates anti/de-icing equipment correctly.	practice for flight into icing conditions. □ Performs takeoff and climb, cruise, descent and landing with emphasis on correct procedures in icing conditions. □ Completes all appropriate briefing/checklists.	avoidance if necessary. □ Demonstrates correct crew co-ordination as required by type of operation.
ATC Liaison – Compliance, RT Procedures – Airmanship (applies to all phases of flight)			
To determine that the applicant uses correct R/T procedures, complies with ATC instructions and conducts the flight efficiently and safely.	□ Operates radio equipment correctly. □ Operates transponder correctly.	□ Uses ICAO R/T phraseology. □ Speaks clearly on R/T. □ Reads back clearances correctly. □ Complies with ATC clearances or instructions.	□ Manages flight safely with due regard to weather, other traffic and procedures – *see description of Airmanship*

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the abnormal/emergency procedures (as may be determined by the Examiner) relating to the particular aeroplane type. Notes: - Examiner selects suitable malfunctions in accordance with the JAR test schedule and aeroplane type. - It is strictly forbidden to disengage circuit breakers to simulate any kind of system failure(s)/ malfunctions(s) in the aeroplane. - Depending on the aeroplane used these items may be checked by other means i.e. oral or by 'touch-drills' if required for safety - While simulating engine failure on a multi engine	- Maintains control of aeroplane	- Demonstrates the proper procedure for any emergency/abnormal situation (as determined by the Examiner) in the appropriate approved AFM. - Completes the appropriate abnormal/emergency checklist.	- Shows correct fault diagnosis - Confirms fault diagnosis (with other crew members (MPA) - Reviews causal factors (with other crew members (MPA) - Identifies alternative courses of action - Involves other crew members in option analysis (MPA) - Considers and shares the risks of alternative courses of action - Confirms intended plan of action (with other crew members inMPA) - Ensures that correct crew and passenger briefings are completed - Divides attention properly inside and outside cockpit. - Maintains adequate lookout, before, during and after execution of any manoeuvre by visual references. - Alerts ATC if necessary and obtains appropriate level of service

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
aeroplane, the Examiner or the safety pilot must be able to cope with a real failure on another engine. - The Examiner or the safety pilot must also know the alarm inhibitions and the inefficacy of a continuous alarm due to any failure simulation.			
Rejected Take-off	**see Abnormal and Emergency Procedures (General)**		
To determine that the applicant exhibits adequate knowledge of the technique and procedure for accomplishing a rejected takeoff after engine/system(s) failure/warnings, including related safety factors. Note: If no FTD available a rejected take-off reasonable speed must be determined (e.g. 50% of VMCA)–giving due consideration to aeroplane characteristics, runway length, surface conditions, wind direction, brake heat energy, and any other factors that	- Abandons the takeoff if any major problem or failure occurs at a point during the takeoff where the abort procedure can be initiated and the aeroplane can be safely stopped on the remaining runway/stop way. - Uses spoilers, propeller reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, maintaining positive control in such a manner as to bring the aeroplane to a safe stop.	- Accomplishes the appropriate engine failure or other procedures and/or briefing/checklists as set forth in the Pilot's Operating Manual or AFM. - Completes the appropriate briefing/checklist.	- Takes into account, prior to beginning the takeoff, operational factors, which could affect the manoeuvre such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, obstructions, and other related factors that could affect takeoff performance and could adversely affect safety. - Identifies critical situation and makes timely decision to abandon take-off. - Informs ATC when practicable.

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
might adversely affect safety.			
Simulated Engine Failure Between V1 & V2 (ME Aeroplanes Simulator Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the procedures used during engine failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required. **SIMULATOR ONLY:** On a multi-engine aeroplane with published V_1, V_R, and/or V_2 speeds (performance Class A), the failure of the most critical engine should be simulated at a point: After V_1 and prior to $V_{2;}$ or As close as possible after V_1 when V_1 and V_2 or V_1 and V_R are identical.	□ Maintains the aeroplane alignment with the heading appropriate for climb performance and terrain clearance when engine failure occurs. □ Adjusts the engine controls as recommended by the approved guidance for the existing conditions.	□ Completes required checks prior to starting takeoff to verify the expected engine performance.	□ Takes into account, prior to beginning the takeoff, operational factors which could affect the manoeuvre such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety. □ Identifies critical situation and makes timely decision to continue take-off.
Simulated Engine Failure After Take- off, (SE Aeroplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the candidate exhibits knowledge of the elements related to engine failure after take-off.	□ Maintains control following engine failure □ Establishes the recommended glide	□ Carries out the recommended emergency procedure. □ Follows the checklist to	□ Recognises engine failure. □ Attempts to determine the reason for the engine malfunction, if appropriate.

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	airspeed. □ Trims the aeroplane, and maintains control. □ Simulates feathering the propeller if applicable. □ Flies a suitable approach to chosen landing area such that a safe landing would not be in doubt.	verify procedures for securing the engine. □ Demonstrates engine restart in accordance with recommended procedures if appropriate	□ Selects a suitable landing area, noting any surface conditions, obstructions or other hazards that might hinder a safe landing.
Simulated Engine Failure After Take-off, (ME Aeroplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the candidate exhibits knowledge of the elements related to engine failure after take-off.	□ Maintains control following engine failure. □ Reduces drag, and verifies the inoperative engine. □ Secures the inoperative engine, if appropriate. □ Simulates feathering the propeller of the inoperative engine, if appropriate. □ Establishes V_{YSE}; if obstructions are present, establishes V_{XSE} or V_{MC} +10, whichever is greater, until obstructions are cleared, then transitions to V_{YSE}..	□ Carries out the recommended emergency procedure.	□ Recognises engine failure promptly, and correctly identifies inoperative engine. □ Assesses the aeroplane's performance capabilities and makes suitable decision to continue climb, return to aerodrome or prepare for a forced landing.

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	□ Banks toward the operating engine up to 5 degrees as required for best performance, trims the aeroplane and maintains control. □ Monitors the operating engine and makes adjustments as necessary.		
Simulated Engine Failure, Shutdown and Restart at Safe Height (ME Aeroplanes Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the flight characteristics and controllability associated with manoeuvring with engine(s) inoperative. To determine that the applicant can demonstrate an engine restart in flight. Note: These procedures must be initiated at a safe height and within gliding distance to the field.	□ Maintains positive aeroplane control to maintain co-ordinated flight, and properly trims for that condition. □ Sets engine controls, reduces drag as necessary □ Maintains the operating engine(s) within acceptable operating limits. □ Maintains desired altitude when a constant altitude is specified and is within the capability of the aeroplane. □ Maintains the desired airspeed and heading.	□ Follows the prescribed aeroplane checklist, and verifies the procedures for securing the inoperative engine(s). □ Demonstrates proper engine restart procedures in accordance with approved procedure/checklist or the manufacturer's recommended procedures and pertinent checklist items.	□ Correctly identifies and verifies the inoperative engine(s) after the failure □ Determines the cause for the engine(s) failure and if a restart is a viable option.

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Simulated Engine Failure During Approach (ME Aeroplanes Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits knowledge of the elements related to an approach and landing with an inoperative engine.	□ Maintains crosswind correction and directional control throughout the approach and landing. □ Sets the engine controls, reduces drag, and identifies and verifies the inoperative engine after simulated engine failure. □ Simulates feathering the propeller of the inoperative engine, if appropriate. □ Establishes the recommended best engine inoperative approach landing configuration, and airspeed. □ Monitors the operating engine and makes adjustments as necessary. □ Maintains a stabilised approach and the recommended approach airspeed until landing is assured. □ Makes smooth, timely, and correct control application	□ Carries out the recommended emergency procedure.	□ Recognises engine failure promptly, and correctly identifies inoperative engine. □ Considers the wind conditions, landing surface, and obstructions, and selects the most suitable touchdown point. □ Considers route to be flown in case of Missed Approach (single engine climb gradient)

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	during the round out and touchdown. □ Touches down smoothly at the predetermined zone, with no drift, and with the aeroplane's longitudinal axis aligned with and over the runway centreline.		
Asymmetric Approach (ME Aeroplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits knowledge of the elements related to a published instrument approach with one engine inoperative (by reference to instruments). *Note:* *See **'Instrument Approach Procedures'** for assessment of instrument procedures and apply the additional criteria for asymmetric approaches.*	□ Establishes and maintains the recommended flight attitude and configuration for the best performance for all manoeuvring necessary for the instrument approach procedure. □ Maintains a stabilised approach and the recommended approach airspeed until landing is assured. □ Monitors the operating engine(s) and makes adjustments as necessary.	□ Complies with the published approach procedure. □ Applies additional allowance to approach minima as required for asymmetric condition.	□ Displays efficient cockpit management procedures throughout the approach.

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Go-around with Engine(s) (Simulated) Inoperative (ME Aeroplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of a go-around procedure with one engine simulated inoperative, including the conditions that dictate a rejected landing, the importance of a timely decision, the recommended airspeeds.	□ Applies the appropriate power setting for the flight condition and establishes a pitch attitude necessary to obtain the desired performance. □ Establishes a positive rate of climb and climb at the appropriate airspeed to the correct acceleration altitude. □ Retracts the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence. □ Trims the aeroplane as necessary, and maintains the proper ground track and altitudes during the rejected landing procedure.	□ Accomplishes the appropriate briefing/checklist items in a timely manner in accordance with approved procedures.	□ Makes a timely decision to reject the landing for actual or simulated circumstances and makes appropriate notification when safety-of-flight is not an issue.
Landing with Engine(s) (Simulated) Inoperative (ME Aeroplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the flight characteristics and controllability associated with manoeuvring to a landing with	□ Establishes the approach and landing configuration appropriate for the runway and meteorological conditions; and adjusts the	□ Completes the applicable before landing checklist. □ Completes the applicable after-landing briefing/checklist items in a	

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
(a) engine(s) inoperative (or simulated inoperative) including the controllability factors associated with manoeuvring, and the applicable emergency procedures.	engine controls as required. □ Maintains a stabilised approach and the desired airspeed □ Maintains the operating engine(s) within acceptable operating limits □ Accomplishes a smooth, positively controlled transition from final approach to touchdown. □ Uses spoilers, propeller reverse, thrust reversers, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop after landing. □ Maintains positive directional control and crosswind corrections during the after-landing roll.	timely manner, after clearing the runway, and as recommended by the manufacturer.	

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Emergency & Survival Equipment see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits knowledge of the elements related to emergency equipment and survival gear appropriate to the aeroplane provided for the flight test. Note: Examiner questions applicant on location and use of emergency equipment.	□ Location in the aeroplane. □ Method of operation or use. □ Servicing requirements. □ Method of safe storage. □ Equipment and survival gear appropriate for operation in various climates and topographical environments		
Simulated Forced Landing (SE Aeroplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the flight characteristics, approach and forced (emergency) landing procedures, and related procedures to use in the event of an engine failure (as appropriate to the aeroplane). Note: No simulated engine failure shall be given by the Examiner in an aeroplane when an actual	□ Maintains positive control throughout the manoeuvre. □ Establishes and maintains the recommended best glide airspeed and configuration during a simulated engine failure. □ Establishes a proper flight circuit to the selected aerodrome or landing area □ Uses configuration devices such as landing gear and flaps in a manner recommended by the manufacturer and/or	□ Follows the emergency checklist items appropriate to the aeroplane	□ Selects a suitable aerodrome or landing area, which is within the performance capability of the aeroplane. □ Takes into account altitude, wind, terrain, obstructions, and other pertinent operational factors. □ Determines the cause for the simulated engine failure (if altitude permits) and if a restart is a viable option.

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
touchdown could not be safely completed should it become necessary.	approved. □ Flies a suitable approach to chosen landing area such that a safe landing would not be in doubt.		
Simulated Precautionary Landing (With Power) – (SE Aeroplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits knowledge of the elements related to precautionary forced landing with power.	□ Maintains the appropriate heading, and if necessary, climbs. □ Establishes a proper flight circuit to the selected aerodrome or landing area. □ Flies a suitable approach to chosen landing area such that a safe landing would not be in doubt.		□ Selects the best course of action when given a lost situation. □ Attempts to identify nearest prominent landmark(s). □ Uses available navigation aids and/or contacts an appropriate facility for assistance. □ Plans a precautionary landing if deteriorating weather and/or fuel exhaustion is impending. □ Selects a suitable aerodrome or landing area, which is within the performance capability of the aeroplane.
Fire Drills	**see Abnormal and Emergency Procedures (General)**		
To determine that the applicant possesses adequate knowledge of the emergency procedures (as may be determined by the Examiner)	□ Exhibits adequate knowledge of fire detection and extinguishing systems. □ Performs all actions required by the fire drills.	□ Demonstrates proper procedures in accordance with approved procedure/briefing/checklist or the manufacturer's	□ Identifies source of smoke/fire in a timely manner. □ Takes care of passenger/crew safety. □ Initiates emergency

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
relating to the particular aeroplane type.	□ Maintains aeroplane control.	recommended procedures	descent/diversion if appropriate.
Wind shear During Take-off & Landing see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of wind shear at take-off/landing.	□ Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure. □ Adjusts aeroplane configuration and speeds as appropriate. □ Maintains smooth and positive control within aeroplane limitations.	□ Performs all procedures required for wind shear at take-off/landing and aeroplane control in a smooth, positive, and timely manner.	
Simulated Cabin Pressure Failure/Emergency Descent See Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge (simulated) cabin pressure failure/emergency descent.	□ Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure. □ Performs emergency descent in a smooth, positive, and timely manner without exceeding limitations.	□ Demonstrates proper procedures in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items. Informs ATC to separate other traffic.	

Abnormal and Emergency Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Incapacitation of Flight Crew Member (only for MPA) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of incapacitation of flight crewmember.	□ Maintains aeroplane control in a smooth, positive, and timely manner.	□ Performs all procedures for incapacitation of flight crewmember in accordance with approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items	□ Identifies crew incapacitation in a timely manner. □ Ensures safety of crewmember and clear of aeroplane controls.

Instrument Procedure			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Arrival Procedures and Instrument Procedures (General)			
To determine that the applicant, In actual or simulated instrument conditions, exhibits adequate knowledge of En Route Low and High Altitude Charts, STARS, Instrument Approach Procedure Charts, and related pilot and controller responsibilities.	□ Makes correct use of Instruments, flight director, autopilot, navigation equipment and communication equipment appropriate to the performance of the procedure. □ Intercepts, in a timely manner, all courses, radials, and bearings (QDM/QDR's) appropriate to the procedure, route, ATC clearance, or as directed by the Examiner. □ Establishes, where appropriate, a rate of descent consistent with the aeroplane operating characteristics and safety. □ Maintains the appropriate airspeed- altitude, headings and accurately tracks radials, courses, and bearing (QDM/QDR's).	□ Uses the current and appropriate navigation publications for the proposed flight. □ Performs the aeroplane briefing/checklist items appropriate to the arrival. □ Establishes communications with ATC, using proper phraseology. □ Complies, in a timely manner, with all ATC clearances, instructions, and restrictions. □ Exhibits adequate knowledge of two-way communications failure procedures. □ Adheres to airspeed restrictions and adjustments required by regulations, ATC, the Pilot's Operating Manual, the AFM, and the Examiner. □ Complies with the provisions of the descent	□ Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. □ Demonstrates terrain awareness, orientation, division of attention, and proper planning. □ Ensures that correct crew and passenger briefings are completed □ Liaises with other crew members for correct operation of the aircraft systems during approach and landing □ Demonstrates orientation, division of attention, and proper planning

Instruction Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
		profile, STAR, and other arrival procedures, as appropriate. □ Performs correct altimetry procedures, in accordance with the regulations, operational procedures and ATC requirements. □ Completes the appropriate checklist.	
Setting Navigation Aids and Identification of Facilities see Arrival Procedures and Instrument Procedures (General)			
To determine that the applicant correctly selects and identifies all navigation and communications equipment, instrument references, flight director and associated navigational aids, for descent and arrival and exhibits adequate knowledge of the Morse Code.	□ Tunes and identifies navigational facilities as appropriate to the procedure. □ Correctly selects Navigational aids to flight instruments such as HSI, RMI, OBS, flight director, autopilot etc. as appropriate. □ Demonstrates adequate knowledge of Morse Code to identify aids. □ Demonstrates correct use of course indicators to indicate QDM/QDR. □ Demonstrates correct use of communications		□ Monitors Navigation equipment for signal/equipment failure.

Instruction Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	equipment including SSR equipment.		
Approach and Landing Briefing, Including Descent, Approach and Landing Checks see Arrival Procedures and Instrument Procedures (General)			
To determine that the applicant exhibits adequate knowledge of approach and landing briefings, whether single or multi-pilot, including descent, approach and landing checks. *Note:* The approach briefing should include weather considerations and confirmation of instrument approach procedure minima. All procedures, checks and drills in preparation for landing and for missed approach. The briefing shall include appropriate corrections for PEC (Propeller Electronic Control) and temperature adjustments, as well as performance considerations and reference speeds to be used. The applicant shall be required	□ Demonstrates sound judgement and consideration of the aeroplane manoeuvring capabilities throughout the briefings. □ Performs all procedures required and maintains aeroplane control in a smooth, positive, and timely manner.	□ Presents proper briefings in accordance with the operator's standard, approved procedures or the manufacturer's recommended procedures for the correct operation of the aircraft systems.	□ Involves other crew members in the briefing and correctly follows correct SOP for confirmation of the intended approach procedure, approach minima and missed approach procedure. □ Demonstrates orientation, division of attention and proper planning for the approach and landing phase. □ Includes due consideration for missed approach procedures and diversion planning, in the briefing.

Instrument Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
also, to ensure that the passengers receive a safety briefing.			
Holding Procedures	**see Arrival Procedures and Instrument Procedures (General)**		
To determine that the applicant, In actual or simulated instrument conditions, exhibits adequate knowledge of and proficiency in holding procedures for standard and non-standard, published and non-published IFR holding patterns.	□ Changes to the recommended holding airspeed appropriate for the aeroplane and holding altitude, so as to cross the holding fix at or below maximum holding airspeed. □ Uses wind-drift correction techniques accurately to maintain the appropriate joining and holding pattern and to establish and maintain the correct tracks and bearings. □ Maintains the appropriate airspeed, altitude and headings accurately to establish and maintain the correct tracks and bearings.	□ Recognises arrival at the clearance limit or holding fix. □ Follows appropriate entry procedures in accordance with standard operational procedures or as required by ATC or the Examiner. □ Complies with ATC reporting requirements. □ Uses the correct timing criteria where required by the holding procedure, ATC or the Examiner's instructions. □ Makes appropriate adjustments to the procedure timing, to allow for the effects of known wind.	

Instrument Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	□ Demonstrates adequate knowledge of holding endurance, including, but not necessarily limited to, fuel on board, fuel flow while holding, fuel required to alternate, etc.	□ Makes appropriate adjustments in order to arrive over the holding fix as close as possible to the "Expected Approach Time".	
Instrument Approaches (General)			
To determine that the applicant exhibits adequate knowledge of altitude, speed and heading control and performs a stabilised approach in the correct configuration.	□ Establishes the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions. □ Prior to beginning the final approach segment, maintains the desired altitude, heading and airspeed and accurately tracks radials, courses, and bearings, in accordance with the approach procedure or as directed by ATC.	□ Selects, tunes, identifies, and monitors the operational status of ground and aeroplane navigation equipment used for the approach. □ Advises ATC anytime the applicant is unable to comply with a clearance. □ Completes the aeroplane briefing/checklist items appropriate to the phase of flight or approach segment, including engine out approach and landing briefing/checklists. □ Follows the published approach procedure in accordance with ATC instructions, or as directed by the Examiner.	□ Establishes two-way communications with ATC using the proper communications phraseology and techniques. □ Copies correctly, in a timely manner, the ATC clearance as issued. □ Ensures that correct crew and passenger briefings are completed □ Ensures or confirms that passengers, crew etc are correctly secured for landing. □ Demonstrates correct crew co-ordination as required by type of operation □ Demonstrates orientation throughout the manoeuvre

Instruction Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	☐ Demonstrates satisfactory altitude, speed and heading control, with the aircraft in trim such that a stable approach path is achieved and maintained to the approach minima. ☐ Transitions to a normal landing approach only when the aeroplane is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal manoeuvring.	☐ Makes appropriate adjustments to the procedure timing, to allow for the effects of known wind. ☐ Applies the necessary adjustments to the published approach minima criteria for the aeroplane approach category, and with due regard for o NOTAMS o Inoperative navigation equipment o Inoperative visual aids associated with the landing environment. o Reported weather conditions ☐ Completes the appropriate briefing/checklist.	☐ Encourages participation of other crewmembers in accordance with approved SOP.
Precision approach	**see Instrument Approaches (General)**		
To determine that the applicant exhibits adequate knowledge and skill in accomplishing the precision instrument approach procedures, as determined by the Examiner, with all engines	☐ Intercepts and tracks localizer within prescribed limits.	See Instrument Approaches General	See Instrument Approaches General

Instrument Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
operating, and / or with one engine inoperative, where applicable. Note: Precision approaches, using aeroplane NAVAID equipment for centreline and glide slope guidance may be accomplished in simulated or actual instrument conditions to Decision Altitude/Height (DA/DH) and must be flown without the use of an autopilot. Where the approach is required to be flown with one engine inoperative, simulated engine shut-down must be completed before the final approach segment. This engine out condition should be preserved until completion of the landing run or throughout the go-around procedure. For ILS displays with a normal	□ Establishes a predetermined rate of descent at the point where the electronic glide slope begins, in order to follow the glide slope. Maintains electronic glide slope within prescribed limits. □ *Arrives at the DA/DH in such a position that a landing, go-around or circling approach may be accomplished safely.* □ Avoids descent below the DA/DH before initiating a missed approach procedure or transitioning to a landing. □ Initiates immediately the missed approach, when at the DA/DH, if the required visual references for the runway are not unmistakably visible and identifiable. □ Maintains localizer and glide slope during the		

Instrument Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
scale, the approach should be contained within a half scale deflection of the localizer and glide slope indications. For aircraft with an expanded scale display of the localizer, the approach should be contained within the full scale deflection of the localizer and half scale deflection of the glide slope indications.	visual descent from DA/DH to a point over the runway where glide slope must be abandoned to accomplish a normal landing.		
Non Precision approach	**see Instrument Approaches (General)**		
To determine that the applicant exhibits adequate knowledge and skill in accomplishing the non-precision instrument approach procedures, as determined by the Examiner, with all engines operating, and/ or with one engine inoperative, where applicable.	Establishes a rate of descent that will ensure arrival at the MDA/H (at, or prior to reaching, the visual descent point if published) with the aeroplane in a position from which a descent from MDA/H to a landing on the intended runway can be made, at a normal rate using normal manoeuvring. Executes the missed approach if the required	Demonstrates adequate judgement and knowledge of the aeroplane. Performance in order to comply with published approach procedures equipment used for the approach.	

Instrument Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	visual references for the intended runway are not unmistakably visible and identifiable at the missed approach point.		
Circling Approach	**see Instrument Approaches (General)**		
To determine that the applicant exhibits adequate, knowledge and skill in accomplishing circling approach procedures, as determined by operational conditions, or by the Examiner, with all engines operating, and/ or with one engine inoperative, where applicable.	□ Demonstrates knowledge of circling approach categories, speeds and procedures. □ Uses the appropriate aeroplane configuration for normal and abnormal situations and procedures. □ Manoeuvres the aeroplane, by visual references, after reaching the authorised circling approach altitude, to maintain a flight path that permits a normal landing on a runway at least 90° from the final approach course, or according to published procedure. □ Maintains at least the published minimum circling	□ Confirms the direction of traffic and adheres to all restrictions and instructions issued by ATC. □ Maintains the correct circling pattern and follows any prescribed tracks in accordance with the published procedure or as directed by ATC or the Examiner. □ Turns in the appropriate direction, when a missed approach is dictated during the circling approach, and uses the correct procedure and aeroplane configuration.	□ Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the circling approach.

Instrument Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	level throughout the circling procedure until a position is reached, from which a descent to a normal landing can be made. □ Maintains visual contact with the landing threshold throughout the circling procedure. □ Performs the procedure without excessive manoeuvring and without exceeding the normal operating limits of the aeroplane (the angle of bank should not normally exceed 30°).		
Go-Around & Missed approach see Instrument Approaches (General)			
To determine that the applicant exhibits adequate knowledge and skill in the application of missed approach procedures associated with standard instrument procedures.	□ Initiates the missed approach procedure promptly by the timely application of power, establishes the proper climb attitude, and re-configures the aircraft in accordance with the approved procedures. □ Maintains the desired altitudes, airspeed,	□ Follows the recommended aeroplane briefing/checklist items appropriate to the go-around procedure for the aeroplane used. □ Complies with the appropriate missed approach procedure or ATC clearance	□ Requests clearance, if appropriate, to the alternate aerodrome, another approach, a holding fix, or as directed by the Examiner. □ Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change.

Instrument Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	heading and accurately tracks courses, radials, and bearings.		

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Aerodrome Arrival Procedures			
To determine that the applicant exhibits adequate knowledge of the appropriate arrival procedures and relevant pilot and controller responsibilities, and makes proper reference to the appropriate navigation publications and charts.	□ Maintains the appropriate airspeed- altitude, headings □ Exhibits adequate knowledge of two-way communications failure procedures.	□ Uses the current and appropriate navigation publications for the proposed arrival routeing. □ Complies in a timely manner with ATC instructions and airspace restrictions. □ Performs the aeroplane briefing / checklist items appropriate to the arrival. □ Performs correct altimetry procedures, in accordance with the regulations, operational procedures and ATC requirements. □ Completes the appropriate checklist.	□ Establishes communications with ATC, using proper phraseology. □ Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. □ Demonstrates terrain awareness, orientation, division of attention, and proper planning. □ Liaises with other crewmembers for correct operation of the aircraft systems throughout the arrival phase. □ Divides attention properly inside and outside cockpit. □ Ensures that correct crew and passenger briefings are completed □ Liaises with other crew members for lookout (where appropriate)
All landings (Including Normal Landing) General			
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of landings, with due regard for	□ Establishes the recommended approach and landing configuration and airspeed, and adjusts	□ Completes the appropriate pre-landing checklist □ Completes the appropriate after-landing checklist	□ Ensures or confirms that passengers and crew are correctly secured for take-off / landing.

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
recommended approach angles, airspeed, configuration, performance limitations, wake turbulence, and safety factors (as appropriate to the aeroplane).	pitch attitude and power as required, to maintain the correct approach path and airspeed. □ Maintains a ground track that ensures the desired traffic circuit will be flown, taking into account any obstructions and ATC or Examiner requirements. □ Makes proper correction for drift, (using existing wind conditions) and maintains a precise ground track. □ Achieves and maintains a stabilised approach. □ Accomplishes a smooth, positively controlled transition from final approach to touchdown. □ Achieves a landing within the designated touchdown zone, at the correct speed, in the correct attitude and on the runway centreline. □ Touches down with no side drift and with the aeroplane	items.	□ Correctly interprets the ATC clearance received and, when necessary, requests clarification, verification or change □ Liaises with other crew members for correct operation of the aircraft systems during approach and landing. □ Considers the wind conditions, landing surface and obstructions, and selects the correct touch down point. □ Listens to the RT environment to establish satisfactory awareness of other traffic □ Demonstrates orientation, division of attention, and proper planning □ Divides attention properly inside and outside cockpit. □ Maintains adequate look-out for other aeroplanes. □ Notes any surface conditions, obstructions or other hazards that might hinder a safe takeoff/ landing □ Shows consideration for other aeroplanes on the ground and in the air

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	aligned with the runway centreline. □ Maintains positive directional control throughout the landing roll. □ Uses spoilers, propeller reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop.		
Short Field Approach & Landing **See All Landings General**			
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of a short-field approach and landing.	□ Maintains a stabilised approach and achieves the recommended approach airspeed, or in its absence at 1.3 V_{SO}, with gust factor applied □ Achieves a landing, accurately within the runway touchdown zone. □ Applies brakes, spoilers, reverse thrust and / or such other devices for the slowing of the aircraft in accordance with the manufacturer's recommendations, to stop in the shortest distance		

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	consistent with safety and the certificated performance of the aircraft.		
Flapless Landing	**See All Landings General**		
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of a safe landing without flaps or with slats /flaps malfunction.	□ Maintains a stabilised approach at an appropriate approach speed, in accordance with the Pilot's Operating Manual / AFM □ Accomplishes a smooth, positively controlled transition from final approach to touchdown.		□ Makes due allowance for landing performance in the no flap/no slat configuration.
Approach and Landing with Idle Power (Single Engine Aeroplanes Only) **See All Landings General**			
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of a safe landing with the engine at idle power.	□ Reduces to idle power in such a position as to achieve a glide descent and landing on the runway, in an area pre-selected by the applicant or nominated by the Examiner. □ Adjusts pitch attitude to maintain the correct gliding airspeed. □ Uses drag and configuration changes to ensure the touchdown point is within the selected		□ Uses correct RT phraseology to obtain the appropriate clearance and advise ATC of any technical problem. □ Makes due allowance for traffic pattern and other aeroplanes □ Correctly assess effect of wind on glide performance.

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
	area. □ Applies brakes, to stop in the shortest distance consistent with safety.		
Landing with simulated jammed horizontal stabiliser in any out-of-trim position **See All Landings General**			
To determine that the applicant exhibits adequate knowledge of the factors which influence control of the aircraft with jammed stabilizer, in any out-of-trim position, including the use of various drag configurations, power settings, pitch attitudes, weights, and bank angles	□ Demonstrates sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure. □ Maintains safe aeroplane control in a smooth, positive, and timely manner.	□ Demonstrates proper procedures in accordance with approved procedure/ briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/ checklist items.	□ Demonstrates satisfactory situation / problem analysis □ Involves other crew members in problem analysis (MPA) □ Shows correct fault diagnosis □ Confirms fault diagnosis (with other crew members (MPA) □ Reviews causal factors (with other crew members (MPA) □ Identifies alternative courses of action, if appropriate □ Involves other crew members in option analysis (MPA) □ Confirms intended plan of action (with other crew members (MPA) □ Uses correct RT phraseology to obtain the appropriate clearance and advise ATC of any technical problem.
Touch and go			
To determine that the applicant	□ Establishes the	□ Complies with the	□ Makes a timely decision to

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
exhibits knowledge of the elements related to a touch and go including the importance of a timely decision to continue or to stop on the runway.	recommended take-off configuration and applies take-off power, to transition safely to a normal or short field take-off, as appropriate to the aircraft type and the conditions □ Maintains directional control and drift correction. □ Establishes a safe climb in the correct configuration and at the correct speed.	appropriate traffic pattern and noise abatement procedures.	discontinue the landing.
Go-around from low height			
To determine that the applicant exhibits adequate knowledge and skill in a rejected landing procedure, including the conditions that dictate a rejected landing, the importance of a timely decision, the recommended airspeeds, and also the appropriate re-configuration procedure. *Note:* *The manoeuvre may be combined with visual, instrument, circling, or missed*	□ Applies the appropriate power setting for the flight condition and establishes a pitch attitude necessary to obtain the desired performance. □ Retracts the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, establishes a positive rate of climb and the appropriate airspeed □ Trims the aeroplane as necessary, and maintains the proper ground track	□ Accomplishes the appropriate checklist items in a timely manner in accordance with approved procedures.	□ Makes a timely decision to reject the landing for actual or simulated circumstances and makes appropriate notification when safety-of-flight is not an issue. □ Demonstrates proper consultation with other crew members (MPA) □ Liaises with other crew members for correct operation of the aircraft systems whilst changing power setting, configuration and airspeed (MPA) □ Correctly interprets the ATC clearance received and, when

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
approach procedures, but instrument conditions need not be simulated below 100 feet (30 meters) above the runway. This manoeuvre should be initiated in the landing configuration, when approximately 50 feet (15 meters) above the runway and approximately over the runway threshold or as recommended.	during the rejected landing procedure.		necessary, requests clarification, verification or change
After Landing and taxiing			
To determine that the applicant exhibits adequate knowledge of safe after landing and taxi procedures as appropriate.	□ Demonstrates proficiency by maintaining correct and positive control. □ Maintains proper spacing on other aeroplane, obstructions, and persons. Maintains the appropriate speed □ Maintains constant vigilance and aeroplane control during the taxi operation.	□ Accomplishes the applicable briefing/checklist items and performs the recommended procedures. □ Complies with instructions issued by ATC (or the Examiner simulating ATC). □ Observes runway hold lines, localizer and glide slope critical areas, and other surface control markings and lighting. Completes the appropriate checklist.	□ Demonstrates correct crew co-ordination as required by type of operation (MPA) □ Ensures that correct crew and passenger briefings are completed □ Liaises with other crew members for lookout (MPA) Divides attention properly inside and outside cockpit.

Arrival and Landing Procedures			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Parking and Securing			
To determine that the applicant exhibits adequate knowledge of parking and securing aeroplane procedures.	□ Correctly parks and secures aeroplane.	□ Completes the aeroplane flight records including flight time records and discrepancies.	

Night Operations			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
To determine that the applicant exhibits knowledge of the elements related to night operations by explaining:	□ Lighting systems identifying aerodromes, runways, taxiways and obstructions, and pilot controlled lighting. □ Aeroplane lighting systems. □ Personal equipment essential for night flight. □ Night orientation, navigation, and chart reading techniques.	□ Safety precautions and emergencies peculiar to night flying.	□ Physiological aspects of night flying including the effects of changing light conditions, coping with illusions, and how the pilot's physical condition affects visual acuity.
Night Operation including Night circuit, go-around and landing with landing lights off			
To determine that the applicant exhibits knowledge of the elements related to night flight.	□ Inspects the interior and exterior of the aeroplane with emphasis on those items essential for night flight. □ Taxies adhering to good operating practice for night conditions. □ Performs takeoffs and climbs with emphasis on correct visual and instrument references. □ Navigates and maintains orientation. □ Approaches, lands, and taxies, adhering to good operating practices for night conditions.	□ Completes all appropriate briefing/checklists.	

Module 4 – Test Standards Helicopter

The tables in this module give a practical guide to the criteria to be considered by the Examiner when assessing each item of PART-FCL helicopter tests and checks.

The following guidance information is offered to assist the Examiner to conduct a thorough flight test. These recommendations will aid in making accurate assessments of the candidate's skill and knowledge.

Airmanship

Airmanship is not always listed in the performance criteria for each item, but it is an integral part of the performance of each item, when relevant, and should be evaluated.

1 Preparation for Flight

Ensure that questions asked are relative to the helicopter being used for the flight test. Emphasize the maintenance release conditions, deferred defects and the number of hours or calendar time remaining before the next maintenance action is due. 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 of that discovery and its impact on the proposed flight.

The candidate may use the Flight Manual to determine information other than the limitations listed in the flight test guide as memory items. For some of the memory items, depending on the aircraft type and where placards are accessible in flight, the candidate may refer to the equivalent placards illustrated in the Helicopter Flight Manual to quote limitations.
Record the answers given to questions regarding limitations and operational data so that, during the flight test, the actual limitations and operational data used may be compared. Keep questions related to the Flight Manual practical and operational in nature, particularly if the conditions of temperature, wind strength, high density altitude, etc. existing at the time of flight test can be utilized or, if not, by incorporating them in a scenario.

The candidate should be asked to correct the loading where the C of G is beyond limits, and questioned to determine understanding of extreme C of G locations and the resulting effect on helicopter handling and performance. It is recommended to use a scenario-based example such as: Where a passenger or passengers with equipment were to be embarked or disembarked at a certain location where the helicopter could not be shut down because of operational reasons. How would the pilot ensure that the aircraft is within the C of G limits?
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.

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. For example, you may ask a question about the action to be taken regarding a filter blockage, as applicable to the type. A failure by the candidate to visually, or by other means, 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 or possible, the Examiner may accept fuel chits, fuel logs, etc., that in the Examiner's judgment 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.

A helicopter pilot may have to describe a serviceability problem to maintenance personnel, especially when in a remote location; therefore, candidates are expected to know the name of major components, as applicable to the type, their location and their basic function. For example, when having a problem starting a turbine engine, the pilot is expected to be able to tell maintenance personnel if the bleed valve is open or closed.

When asking the candidate to describe the basis function of a component or system, the expected depth of the knowledge could differ depending on whether the flight test is private or commercial. In all cases, ask practical questions that would probe a deeper understanding of a component or system from a commercial candidate than a private one and mark the performance according to the type of flight test performed.

The candidate should use the checklist provided with 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 checks carried out by a candidate should cover at least the items mentioned in the Helicopter Flight Manual.

The candidate should be questioned at this time to determine what action would be taken if a problem emerges (e.g. excessive magneto-drop, a hot start, engine overspeed or instruments not indicating when anti-ice or carburetor heat controls are selected and/or reset etc.).

Note:
A check of flight controls for freedom and the correct movement of the corres-ponding rotor blades are mandatory and will be conducted before flight. In some cases during the winter months the check can be performed during the pre-flight inspection while the aircraft is still inside the hanger to avoid damage to the rotor head. Should the candidate neglect this check, the Examiner will ask the candidate to perform it and a major error will be noted.

2 Conduct of Test/Check

Ancillary Controls and Aircraft Systems

The candidate should demonstrate an adequate practical knowledge of the operation of systems installed on the helicopter being used for the flight test and will be expected to use all ancillary controls in the correct manner during the flight. If the operation of a system or the use of an ancillary control was not required during the flight, the Examiner may require a demonstration, simulated or actual, to evaluate the candidate's practical knowledge of that control or system.

Takeoff and Landing to and from the Hover

This item must be assessed on a continuing basis throughout the flight test and a mark awarded only after the final landing.

The candidate is expected to demonstrate accuracy maintaining position and heading while respecting all operating limitations during the takeoffs and landings to and from the hover. The Examiner should request into and out of wind demonstrations by using scenarios, whenever possible. During the takeoff, verify that the candidate checks that the skids are free, the control response, the position of the cyclic for the C of G and the power required to hover. In a stable hover, verify that the candidate checks temperatures, pressures and warning lights.

Failure to carry out a take-off check will result in a failure of this item.

When landing, a seating check will be performed as appropriate to the type of landing surface. For example, when landing on a paved surface the seating check only needs minimal precaution compared to a landing on an unprepared surface.

Hover, Hover Taxi and Hovering Turns

This exercise is tested in conjunction with the exercise listed before, which includes hover taxiing sideways and rearwards. These items may be accessed during the demonstration of other items or by itself.

The Examiner must confirm the candidate's lookout particularly when hover taxiing or turning in a hover in a confined area, a busy ramp or an area of sloping ground. In addition to into-wind demonstrations, the candidate should be asked to hover and hover taxi crosswind and downwind, when conditions permit.

Engine Failure at the Hover or Hover Taxi, TODP, LDP

It is important that the Examiner uses a suitable landing area, such as a runway or a smooth grassy surface. If you are not familiar with the site, it is strongly recommended to test the surface prior to the engine failure, by landing on it. For MEH, the appropriate CAT A procedures with OEI shall be applied.

Transitions

In case of an actual emergency, a departure or an arrival should be conducted into wind, whenever possible. As it is not always possible to depart or arrive into wind because of obstacles or runway direction, the candidate is expected to compromise in order to maximize the possibility of a successful landing in the event of an actual emergency.

Malfunctions and Emergency Procedures

The Examiner will determine if helicopter performance, weather conditions and other factors permit the safe conduct of simulated malfunctions or emergency procedures in flight or on the ground with the engine running. At least two of the malfunctions or emergencies should be simulated in flight. The other malfunction or emergency may be tested on the ground with the engine shut down.

Examiners should use a random sampling system, so that candidates will not know in advance what to expect. A random sampling system should also include diversity in the types of malfunctions or emergencies given to the candidate during the flight test. For example, if a candidate is given as a first malfunction a simulated transmission chip indicator, a second malfunction should not be a malfunction that requires similar outcome like a loss of transmission oil pressure. Any malfunctions or emergencies that are listed in the Pilot Operating Handbook (POH) and/or any malfunctions or emergencies relevant to the type that are part of the Flight Training Manual may be simulated and assessed during any portion of the flight test, including tail rotor control failure.

The Examiner must ensure, when simulating emergency or abnormal flight situations that suitable landing areas are available, if required to carry out a prompt precautionary landing. If a site is found to be unacceptable for the purpose of the test upon closer inspection, the Examiner may decide to not proceed to an actual landing by requesting that the candidate recover to a hover or overshoot to a climb.

Traffic 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 a takeoff leading to a landing.

Examiners are expected to familiarize themselves with the type of circuit, speeds, heights, and power settings used by the flight training unit during the training.

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

Sideways and Rearward Flight

This item is tested in conjunction with the Exercise "Hover".

Deceleration and Steep Turn

The Examiner will present a scenario requiring deceleration and a steep turn to a reciprocal heading in order to avoid an obstacle. The Examiner will specify an entry heading and an altitude for the maneuvers.

It is recommended that this maneuver be conducted at 500 feet AGL, and in any case not lower than 300 feet AGL. Caution should be exercised, especially in strong wind conditions, to not lose translational lift during any turn from into the wind to downwind at a reduced airspeed.
Because a scenario is limited by the restriction of height above ground, the Examiner must exercise good judgment and care in the selection of realistic scenarios. You must ensure that the candidate fully understands the scenario that may involve avoidance of towers or weather phenomena in order to avoid confusion when assessing the item.

The candidate is expected to execute, from cruise speed and a specified altitude, a deceleration to a speed between 50 and 60 knots (or MPH) while maintaining an altitude within ±200 feet, followed immediately by a steep turn with at least 30, but not exceeding 45°, of bank through a 180° change of heading to the reciprocal of the entry heading (±20°). The candidate is expected to remain within 200 feet of the entry altitude and an indicated airspeed ranging between 40 to 70 knots (or MPH) during the turn. An airspeed within ±10 knots (or MPH) of the speed range may be acceptable as a major error if corrected in a timely manner by the candidate. A speed deviation more than 10 knots (or MPH) above or below the speed range will be deemed to be a critical deviation. The turn will be terminated with a return to cruise speed at an altitude within ±200 feet of the entry altitude.
A good time to test this item is after Item Alternate Destinations.

Autorotations
The engine failure will be simulated in accordance with the manufacturer's flight manual, the technique will be agreed upon during the pre-flight briefing. Prior to this exercise and before the throttle is brought to the idle position, for simulating an engine failure, it is strongly recommended, that the Examiner have assessed the engine idling capability, if it was not done during the start-up procedure. The engine failure at altitude is usually assessed after the navigation item, but can be tested at any time during 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 suitable landing area exists within the candidate's field of vision and within autorotational range of the helicopter, in case of a real engine failure during the simulation.
Two types of autorotations will be tested one straight in and one with a 180 degree turn and both will be initiated from cruise at a safe height but in no instance less than 500 feet AGL. The two types of autorotations will be initiated by the Examiner in a manner that evaluates range variation during autorotation. The approaches must in all cases be terminated to a hover or hover-taxi. No full-down autorotations except from Hover IGE shall be done due to many examples of accidents during examinations.

Before the candidate is allowed to demonstrate autorotations with power recovery to the hover/hover-taxi, the Examiner must select a safe landing area.
The Examiner will have to determine and show the candidate the boundary of the selected touchdown zone. Those boundaries will be approximate in some cases, but they must be well outlined for the candidate to see.

Note:
The ATO or aircraft owner's policy regarding the minimum wind requirement for autorotations has to be respected when the wind is less than 10 knots.
Where a candidate exceeds a tolerance specified in the performance criteria because of pilot error or poor technique, but recovers in a timely manner that is appropriate to the situation, the performance pertaining to that criterion may be acceptable, if safety was not compromised.
The performance will be deemed to be a "S", even if a correction is made, if a tolerance is exceeded by more than double the specified tolerance because of pilot error or poor technique (not due to wind/weather, turbulence or traffic conditions).
The candidate will be required to carry out two autorotations, one of which will include a 180-degree turn, towards a rectangular pre-selected touchdown zone. A touchdown more than 100 feet of the boundaries will be deemed to be a critical deviation.
There may be factors beyond the control of the candidate that resulted in a simulated landing outside of the pre-selected touchdown zone, even if the candidate used correct approach and landing technique. In those cases, the Examiner has the discretion to consider the conditions that may have caused the deviation and mark the item appropriately.
The necessity of entering into an autorotation is not only required by a partial or complete loss of power but also by various failures of the drive systems, including the tail rotor system. Ground and weather conditions bring a number of variables to an autorotation. Consequently, it is very important that a candidate be well prepared in adapting to those variables.

Examiners too often assess autorotations based only on the final outcome stating that "It was survivable; therefore full marks should be given". The outcome of such an autorotation maybe acceptable, but it is impossible to evaluate if the candidate could adapt to variables conditions and make the required corrections necessary for the outcome to always be acceptable or survivable.

Pilot Navigation

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, and 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.

The candidate will be assessed on his ability to fly the helicopter to set heading over a pre-selected point or to intercept the en route intended track. 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.
The candidate should be allowed enough time after setting heading to determine a track error, when suitable check points are sparse.

The alternate destination item is not a test of pure navigational skills but is an assessment of the ability to proceed to an alternate destination using mental dead reckoning and geographical features such as roads, railways, rivers, etc., if they are available.

A part or all the navigation should be carried out at 500 feet AGL or a minimum safe altitude whichever is higher. A safe height above ground, even if altered during the flight, must be maintained. The candidate is expected to let the Examiner know of intentional altitude and/or heading changes. The candidate must respect the minimum altitudes over and distances from built-up areas, persons or structures.

This item may be assessed while returning to the aircraft base. As the most common navigation aid for VFR pilots is the GPS, it is recommended that the installed GPS unit be utilized for this item. If no GPS is installed, the candidate may use either a VOR receiver or an ADF.

Minimum Safe Altitude Operations

This item will be assessed during the navigation to an alternate destination or at any time that the candidate is required to fly at lower levels. The candidate is expected to demonstrate good judgment when encountering livestock, built-up areas, structures, lakes or rising ground while flying at low altitudes.

The candidate must stay out of the Height Velocity Diagram caution areas except when necessary for the operation.

This item provides a good opportunity to evaluate the candidate's practical knowledge, with brief oral questions, in regard to preventative techniques to be used in the event of an encounter with poor weather or whiteout conditions. If necessary, the Examiner may assess part of this item through questioning on the ground.

Sloping Ground Operations

The Examiner will consider all factors when selecting a landing site, especially the surface conditions and the effect of 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.

Advanced Takeoffs and Landings

The Examiner may assess this item during the confined areas item, except for the ground effect takeoff, and the no-hover landing, which should be tested during the circuit work.
You should not request a specific takeoff or landing but rather use a scenario that allows the candidate to determine the most 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 takeoff, if that is what you want the candidate to demonstrate.

Confined Areas

It is highly recommended to use a scenario for testing this item particularly with candidates for the Commercial Pilot Licence. In most normal operations, a customer will ask to be brought to a particular work site and the helicopter pilot will determine the closest and most suitable area to land the helicopter. The scenario should be based on those particulars, as this requires the candidate to choose the confined area. In some cases, the candidate will choose an area that is very large but is a logical choice. The Examiner will then inform the candidate to ignore that choice for the needs of the test and to choose another smaller confined landing area. If more practicable, the other landing area may be chosen by the Examiner.

If the Examiner selects the confined area, the Examiner must choose a site that demands careful appraisal by 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 helicopter, considering all factors. Nevertheless, the Examiner may choose an alternate field if the candidate has doubts about the suitability 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 the intended confined area back to you. 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 takeoffs and landings.

The candidate must assess the power required for the type of departure planned. For this item, a scenario-based departure that simulates restricted performance capabilities may be used when utilizing a higher performance helicopter for the flight test. The Examiner should let the candidate know early enough in the departure of a situation requiring the candidate to reject the departure to enable a safe return to a hover or a landing.

Note:
Provided the aim of the item is accomplished in a safe and organized manner, Examiners should not be adversely influenced if the procedure used deviates slightly from their preferred technique.

Instrument Flying
After donning a view-limiting device, the candidate should be allowed enough time to settle down in straight and level flight, before specific maneuvers are requested. The required full panel maneuvers should be conducted before requesting limited panel work.

When assessing recovery from the unusual attitude, the Examiner should place the helicopter in the desired unusual 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 safe height or no less than 1000 feet above ground.

The flight test guide and the flight test report place 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 conducting this item approximately mid-way through the test when planning their flight test profile.

Radio Communication
Assessment of correct radio procedures should be conducted throughout the flight test. This item can be simulated quite easily if the ATO is not near an ATC facility, and the Examiner can assess much of this item on the ground, if required. The use of a practical scenario is an excellent method to let the candidate make the decision as to which radio communication services to employ.

Module 5 – Test Tolerances (Aeroplanes and Helicopter)

The nominated tolerances are extracted from PART-FCL.

Tolerance figures are to be used as the basis for assessment on the perfect day in an easily handled aeroplane/helicopter. Since this combination is rare, the Examiner shall make allowance for turbulent conditions and the handling qualities and performance of the type of aeroplane/helicopter used.

Applicants may be advised that, during the flight, they should concern themselves only with flying and operating the aeroplane/helicopter to the best of their ability and not attempt to remain within the tolerances to the detriment of smooth handling.

1 Aeroplane

Quick reference:

Test tolerances - Refer to PART-FCL for changes to this quick reference table

PROFILE	**LAPL & PPL Skill Tests**	**CPL Skill Test**	**IR, ATPL and all type or class skill test and proficiency checks**
Altitude or Height (in feet)			
Normal Flight	+/-150	+/-100	+/-100
With simulated engine failure/ major emergency	+/-200 PPL ME only	+/-150	+/-100
Starting go-around at decision alt/ht			+50 / -0
Minimum descent altitude/height			+50 / -0
Tracking			
On radio aids	+/-10	+/-5	+/-5°
On radio aids with sim. eng. fail.	+/-15 PPL ME only		
Precision approach			half scale deflection azimuth and glidepath
Heading			
All engines operating	+/-10	+/-10	+/-5
With simulated engine failure	+/-15 PPL (ME) only	+/-15	+/-10
Speeds (in knots)			
Take-off and approach	*+15/-5*	+/-5	+5 / -0
Climb, cruise and descent	+/-15	+/-10	
With simulated engine failure	+15 / -5	+10 / -5	+10 / -5

2 Helicopter

Quick reference:

Test tolerances - Refer to PART-FCL for changes to this quick reference table

PROFILE	LAPL & PPL Skill Tests	CPL Skill Test	IR Skill Test & all other Rating Issues, Revalidations and Renewals
Altitude or Height			
Normal Flight	± 150 ft	± 100 ft	± 100 ft
With simulated major emergency	± 200 ft	± 150 ft	± 100 ft
Hovering IGE	± 2 ft	*-2 ft*	*± 2 ft*
Limited or partial panel		*± 200 ft*	*± 200 ft*
Starting go-around at decision alt/ht			+ 50 ft / -0 ft
Minimum descent altitude/height			+ 50 ft / -0 ft
`Not below' minima (from FAF altitude down to MDA/H)			*- 0 ft*
Circling minima			*+ 100 ft/- 0 ft*
Tracking			
At all times when using a singleneedle display	± 10° *	± 10°	+ 5°
At all times when using a deviation bar display	Full scale deflection *	Full scale deflection	Half scale deflection azimuth and glidepath (precision approach)
DME arcing			*+1nm*
Heading			
Normal flight	± 10° *	± 10°	+ 5°
With simulated major emergency	± 15° *	± 15°	± 10°
Limited or Partial panel		*± 15°*	*± 15°*
Speeds (in knots)			
Take-off and approach	+ 15 / -10 kt		
Take-off and approach multi-engine		± 5 kt	± 5 kt
All other flight regimes	± 15 kt	± 10 kt	± 10 kt
Limited or Partial Panel			*± 10 kt*
With simulated engine failure			+ 10 / - 5 kt
Ground Drift (in feet)			
TO hover IGE	± 3 ft ± 3 ft		± 3 ft
Landing	No sideways or backwards movement		± 2 ft 0 ft rearward or lateral flight

Module 6 – LAPL and Private Pilot Licence (Aeroplane and Helicopter) – LAPL/PPL (A/H)

A guide to the structure of the PPL skill test for the training of the FE for the LAPL and PPL.

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 applicant's skill and knowledge. All items of the skill test should be performed utilising the Flight Test Standards of Module 3/4 and Tolerances of Module 5.

1 Foreword

Every item of every section is to be assessed by the FE.

Some items must be assessed through a dedicated exercise, for instance, item 2.g. requires an airwork. Other items are assessed without setting a particular drill because:

1. they can be assessed through the normal situations of the flight. For instance, items 2.c. (climbing turns and levelling off) have a chance to be observable within the very first minutes of the flight.

2. they are assessed through the whole flight, or a portion of it. For instance, items 2.a or 3.h (ATC liaison) or item 3.b maintaining altitude, heading and speed.

2 Aeroplane

Quick Reference:

Part-FCL reference	AMC1 FCL.1220; FCL.125 // AMC1 FCL.125 // AMC2 FCL.125 // AMC1 FCL125; FCL.235 // AMC2 FCL.125; FCL.235
Who can test:	FE, provided that they are individually authorised for this role. Examiners shall not test applicants to whom they have given flight instruction for that licence. When an attempt is taken as two flights both parts are to be conducted by the same Examiner.
Form used:	National Forms

2.1 Check of Theoretical Knowledge

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

Aeroplane/Helicopter Performance

1. The applicant may use the Pilot Operating Manual to determine information other than essential performance speeds listed in the flight test standards as memory items.

2. 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 exercises may be compared. Questions relating to the Pilot Operating Manual should be "operational" questions, particularly if the conditions of temperature wind strength etc. existing at the time of flight test can be utilised.

Mass and Balance – Loading

1. Make this a practical exercise and relate the mass and balance problem to the proposed cross-country flight. The applicant should also be asked to correct an out of CG situation, and questioned to determine understanding of extreme CG locations and the resulting effect on aeroplane/helicopter handling and performance.

2. Should there be any doubt with regard to the completed mass and balance form presented by an applicant, the level of knowledge should be determined by thorough questioning in this area.

2.2 Conduct of Test/Check

Pre-Flight Inspection

After the applicant has completed the pre-flight inspection a few questions relating to the flight test aeroplane/helicopter should be asked. For example, the effect of the carburettor intake filters being blocked or its location and, subsequently, determining whether the applicant knows the function of all intakes, screens and filters.

Engine Starting and Run-up, Use of Briefing/checklists

1. Check to see if the applicant uses the briefing/checklist provided in the aeroplane or helicopter. If the Examiner does not agree with the content of the briefing/checklist, the applicant should not be penalised. This would be an item for the Examiner to discuss with the training unit or establishment, and if necessary the Authority.
2. The check carried out by an applicant should cover at least the items mentioned in the appropriate Pilot Operating Handbook. The applicant 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 mixture or carburettor heat controls, etc. are selected and/or reset).
3. The applicant is expected to conduct the oral passenger safety briefing at this time.

Ancillary Controls

The applicant should be knowledgeable concerning the use of the carburettor heat, mixture control and any other ancillary controls fitted to the aeroplane/helicopter used for the flight test. Leaning procedures should be examined during the flight, or tested orally. 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 questioning.

Taxiing

If the test is conducted under zero or light wind conditions, it is appropriate that, while taxiing, the applicant be asked to demonstrate how the controls should be held under varying wind conditions, for example cross wind, or a wind blowing from a front or rear quarter.

Steep Turn

For the steep turn remember that the applicant is being assessed on 4 parameters: altitude, airspeed, and angle of bank and recovery heading. Therefore, your request must be specific in all four areas to avoid confusion.

The reference point for resuming straight flight should be narrow but prominent, and clearly visible. The Examiner must take time to ensure that the applicant has in mind the same reference point in order to avoid inaccurate assessment.

Slow Flight

The aim of this exercise is to determine that the applicant can establish slow flight, control the aeroplane/helicopter and return to normal airspeeds.

The applicant must be able to set the aeroplane in slow flight and change heading with appropriate angle of bank and then resume normal flight, at all times keeping control (bank, speed, altitude, slip). Failure to prevent a stall must be assessed as a fail.

Stall

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. The FCL requirement is for a stall with a minimum loss of altitude.

Take-off

1. It is suggested that the Examiner does not request a specific take-off; rather it is recommended a scenario be used so that the applicant is required to decide what procedure to use.

2. Aircraft configuration and airspeeds utilised should be those specified in the Pilot Operating Handbook.

Circuit

If possible, it is recommended that both controlled and uncontrolled aerodromes be used during the test if they are conveniently available in order to check that the appropriate procedures are correctly utilised.

Approach and Landing

In assessing the 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 applicant's ability to land within a specified portion of the runway is to be assessed. The overshoot will be assessed in conjunction with this exercise.

Simulated Precautionary Landing

When requesting this exercise be specific when outlining the reasons requiring a landing; if it is due to simulated weather conditions, then clearly specify the simulated ceiling, visibility, etc., and do not alter them during the procedure.

Remember, the aim of the exercise is to carry out the procedures for safe landing in a suitable area and provided the procedure used is organised and logical and the aircraft configuration is as stipulated in the Pilot Operating Handbook, Examiners should not be adversely influenced if the procedure varies slightly from their own procedure. If a suitable aerodrome is available, it is desirable to ask the applicant to carry the approach through to a landing. This will enable the Examiner to assess ability to carry out a short or soft field landing with this exercise.

Simulated Forced Landing

The engine failure will be simulated in accordance with the method recommended by the manufacturer. Engine failure should be simulated from sufficient height (see also limitations for check flights in module 2) to permit the applicant time to clearly demonstrate his knowledge of procedures and skill. The practise should be given without advance warning from the Examiner, however, the Examiner should ensure that some choice of landing area exists within the field of vision of the applicant and within gliding range of the aircraft. Provided the aim of the exercise is accomplished in an organised manner, the Examiner should not be adversely influenced if the procedure used varies slightly from the Examiner's own procedure.

The Examiner will take care of the engine during the descent so as to ensure safety in the go around. The practice of leaving some power on and achieving a normal descent angle and airspeed by using flap is acceptable. Examiners should determine the applicant's intention with regard to the procedure to be used during this exercise during the pre-flight briefing.

2.3 Enroute Navigation

Pre-flight Planning Procedures

This section clarifies the description of what is expected of the applicant, and the Acceptable Performance has been amended and itemised rather than just a short global statement of the criteria.

The applicant shall:

1. Select a safe and efficient route complying with air-regulation.
2. Obtain and interpret weather and NOTAM information
3. Determine the appropriate departure procedure
4. Determine the acceptability of the departure and destination runways under existing or forecast conditions

When assigning the route, Examiners should try to select a destination that will provide the applicant with suitable terrain and sufficient en-route checkpoints.

The applicant's completed calculations should be verified for accuracy.

Departure Procedure

Applicants 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.

The assessment should be based on ability to adapt to the new circumstances and the manner in which departure procedure is altered.

Enroute Procedure

With respect to time, if no suitable checkpoints are available, extra time should be allowed to enable the applicant to determine if a track error exists. Proper selection of the assigned route should prevent this situation.

Diversion to an Alternate

When Examiners choose to carry out the diversion after a series of other flight test manoeuvres, the Examiner must allow time, and if required, be of some assistance while the applicant arranges the chart and determines their exact location. Following this procedure the Examiner will request the diversion.

It will not always be feasible to test the diversion at low level, but when Examiners do the test in this manner they must consider the following*:*

1. Regulations, built up areas, etc.
2. Safety considerations, suitability of the area, altitude, obstructions
3. "Annoyance" to people or livestock, and
4. Examiners shall not use this exercise to set the applicant up for a contravention of the regulations.

When tested at low level (reasonable height) the selected destination should not require the applicant to over-fly populated areas en-route. Remember this is not a test of pure navigational skills but an assessment of ability to proceed to an alternate using mental dead reckoning and natural geographic features such as roads, railway tracks etc., if they are available. Rulers, protractors, and computers shall 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 as a criterion. Examiners may accept an estimated time of arrival for this exercise which is reasonable, and which would ensure that the diversion could be conducted as planned.

Instrument Flying and Use of Radio Navigation Aids

The applicant will perform a basic instrument check (180 turn in simulated IMC)

Emergency Procedures

1. If the flight test aeroplane is one with which the Examiner is not thoroughly familiar the Pilot Operating Handbook should be studied before asking the applicant to demonstrate the ability to deal with various simulated emergencies.
2. It is not intended that all possible emergency procedures be assessed with each and every applicant. The Examiner should request two emergency procedures in the testing of this exercise, one while airborne and the other with the aeroplane on the ground. Examiner should use a random sampling system, varying the emergency procedures requested to prevent the Examiners flight test from becoming known to the applicants, and to ensure all systems and emergency procedures have been covered in training.
3. One method found very effective by many Examiners, and one, which you may wish to use when assessing the emergency on the ground, is to assess this exercise either prior to engine start-up or upon returning to the apron, when the engine is shut down. With controls in the normal shutdown position, the Examiner places the throttle, mixture, related switches, and the various ancillary controls etc., in the position they would normally be for an engine running at cruise power. The Examiner will then describe to the applicant an emergency situation such as an engine fire. The Examiner may then make an assessment based on how the applicant actually positions the appropriate controls, switches or valves associated with the drill rather than assessing only a verbal statement of how things should be done. Utilising this method should preclude an applicant 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.
4. Examiner should not compound the requested emergencies, nor request so many that it becomes an exercise in endurance up to a point that procedures are neglected or performed incorrectly.

Radio Communications

1. The demonstration of correct radio procedures throughout the whole flight requires the Examiner to make the assessment of this exercise only when the flight has been completed.
2. Assessment is to be based upon the applicant's ability to use proper radio procedures, respond to and act upon ATC clearances and instructions and obtain weather information and update other flight related data. Where necessary, this exercise can be simulated by the Examiner if the flight test is not conducted near an ATC facility. If required the Examiner can assess much of this exercise on the ground. The use of a practical scenario is an excellent method to let the applicant make the decision as to which radio communication services to employ.

3 Helicopter

Quick reference:

	LAPL/PPL (H) SKILL TEST
EASA Reference:	Part FCL Subpart A & AMC2.FCL.125 (LAPL) Subpart B & AMC.FCL.110H (PPL) AMC2 FCL.235 (Content of Skill Test)
Who can test:	FE (LAPL) - LAPL only, FE (PPL), FE (CPL). The SFE is to nominate an Examiner for the third and subsequent Series. • When an attempt is taken as two flights both the en-route procedure and general handling are to be conducted by the same Examiner.
Form used:	National Form
Test format:	Skill Test as described in AMC2.FCL235. The test may be conducted in two parts on the same day by the same Examiner. If the test is unable to be completed, the test form shall be marked 'incomplete'. If the incomplete test is completed on a subsequent date then a new Examiners report form shall be used.
Notes:	**Training** • Applicants must have completed the relevant syllabus of training as prescribed by Part FCL and present evidence of completion of all the training and a recommendation from the ATO for the test. • If the PPL test is to be conducted on a Multi-Engine aircraft then applicants must comply with the Class/type rating requirements for ME aircraft at Part FCL Subpart H.
Validity:	Skill test must be started within 6 months of completing flight instruction and subsequent tests must be completed within 6 months of the first attempt.

Module 7 – Commercial Pilot Licence – CPL (A/H)

A guide for the Examiner on the skill test for the CPL(A) and CPL(H).

All items of the skill test should be performed utilising the Flight Test Standards of Module 3/4 and Tolerances of Module 5.

1 Aeroplane

Quick Reference:

Part-FCL reference	Appendix 4 to PART-FCL
Who can test:	FE provided that they are individually authorised for this role Examiners shall not test applicants to whom they have given flight instruction for that licence. When an attempt is taken as two flights both parts are to be conducted by the same Examiner.
Form used:	National Forms

1.1 General

General Note
In situations when the Examiner does not occupy a pilot seat he is responsible for briefing the safety pilot (Pilot in Command) on his duties throughout the test

Applicants will be assessed on all aspects of the aeroplane operation. Sound basic and handling skills are essential as well as airmanship, navigation, instrument flying, correct R/T phraseology, cockpit and overall flight management. The Examiner may elect to evaluate certain aspects by oral questioning. The CPL Skill Test is divided into six main sections.

Section 1 Pre-flight operations and departure
Section 2 General Airwork
Section 3 En-route procedures
Section 4 Approach and landing procedures
Section 5 Abnormal and emergency procedures
Section 6 Simulated asymmetric flight and relevant class/type items

All sections of the test are to be completed in the course of one flight. The sequence of sections may vary depending on circumstances and the Examiner's briefing will include the expected profile. Examiners are responsible for ensuring an efficient test but applicants must remain adaptable, particularly if weather conditions, ATC 'slot' times etc., subsequently dictate a different scenario during the flight.

GM1 FCL.10515 requires that the duration of the flight is to be at least 90 minutes. Section 3 normally takes about 1 hour and 15 minutes, and Sections 2 and 4 combined about 1 hour. Section 5 may be combined, at the discretion of the Examiner, with Sections 1 through 4, and Section 6, where applicable, may be combined with Section 1 through 5. The whole test could, therefore, take up to 2 hours and 30 minutes.

The CPL Skill Test is very demanding. It is appreciated that even the most 'professional' or 'talented' pilots can make mistakes. This does not necessarily mean that a failure should result.

The following notes reflect the style and sequence of the briefing that the applicant may expect to hear. However, the Examiner may make variations in the delivery of the briefing and may have to modify the sequence in which items are briefed and flown.
From pre-flight to post-flight the applicant will be assessed on his general flight management and flying skills.

1.2 Conduct of Test/Check

Section 1

The applicant will be expected to carry out a safe and practical inspection of the aeroplane prior to flight, and must be aware of the servicing operations that he is entitled to carry out on the aeroplane. The applicant will be expected to proceed with the checks at a practical pace and with reference to the checklist. Where visual checks are made these should be described to the Examiner only if requested. Pre-flight checks of the radio and navigation equipment should include all the equipment which the applicant proposes to use during the flight. The Examiner must be briefed, as a passenger, on the position and method of the use of emergency exits, safety belts, safety harnesses, oxygen equipment, life jackets, and all other devices intended for use by passengers in the case of emergency. The applicant must instruct the Examiner on the actions he should take in the event of an emergency. Passenger briefing cards are acceptable but the Examiner may ask questions.

The applicant must be prepared to deal with actual or simulated Abnormal or Emergency Operations at any stage. The Examiner may simulate, for example, an engine fire during start up.

The applicant is expected to take account of all factors that may affect a safe take-off and departure.

The departure performed shall comply with any instructions given by ATC.

Section 2

Throughout this section the Examiner will be responsible for navigation and ATC liaison, but the applicant will also be responsible for look out and collision avoidance (except when IMC is simulated). The following items will be assessed in the visual and instrument sub-sections of Section 2.

Visual Airwork

Control of the aeroplane by external visual reference including:

1. Straight and level flight at various airspeeds and configurations. Climbing and descending at various speeds and rates which may include best angle (Vx) and best rate (Vy).
2. Flight at critically low airspeeds and slow flight manoeuvres.
3. Turns, including turns in landing configuration; level steep turns at not less than 45° bank; steep turns in clean configuration.
4. Flight at critically high airspeeds (approaching VNE) and recognition of, and recovery from, spiral dives. These manoeuvres are often combined; the Examiner may put the aeroplane into a steep dive or a spiral dive with speed increasing rapidly and hand control to the applicant to initiate appropriate recovery action either to straight and level flight or into a climb.
5. Recognition and recovery from stalls: The applicant should recover at the first symptom of the approaching stall. All recoveries shall be made with the minimum loss of height and returning to a clean climb, wings level.

Instrument Airwork

Control of the aeroplane by sole reference to instruments including:

Full Panel

Level flight in the cruise configuration. Level turns at rate one or bank angles up to 30°. Climbing and descending turns at given rates and speeds.

Limited Panel

1. Flight reference by turn and slip/turn coordinator indicator, standby compass and performance instruments only
2. Straight and level flight at given speeds.
3. Level turns onto given headings at rate one using timed or compass turns.
4. Climb and Descend at cruise speed in straight flight.
5. Recovery from unusual attitudes. (Recovery should be made to trimmed straight and level flight with minimum loss of height).

Section 3

Section 3 is usually flown after Departure to ensure an efficient flow to the flight. During this section of the flight the aeroplane is assumed to be on a passenger carrying operation under Visual Flight Rules. When the aeroplane has achieved cruising altitude and is on heading for the turning point, the applicant should confirm to the Examiner the heading, altitude, and ETA, thereafter advising any changes, (for example, "2 minutes late at my halfway point - the revised ETA is now. . ." etc).

Corrections to heading or ETA shall be calculated rather than based on track crawling, impulse or inspiration. The applicant is expected to navigate by visual positioning in a practical way, not to feature crawl. Numerous heading or altitude changes that are the result of poor flying may constitute a fail in this section. The applicant is expected to make changes to his heading and ETA in order to correct deviations from his plan.

Radio navigation aids may not be used during one leg of the en-route section. In order to assess applicants ability to navigate by visual reference;

At some stage the applicant will be instructed to carry out a diversion from his planned track to an alternative location. This is not an emergency procedure. A prominent location will be pin-pointed on the applicant's chart. The applicant may be asked to commence the diversion at or before a planned turning point. The applicant should nominate his heading, altitude and ETA for the diversion.

At some stage the Examiner will simulate poor weather by simulating IMC. The applicant should take appropriate action to establish safe flight.

During the time under simulated IMC the applicant should continue to navigate and establish the aeroplane's geographical position by using radio navigation techniques. The information may only be obtained by VOR, DME, or ADF, GPS should not be used as a primary navigation aid. When the Examiner decides to return to VMC the applicant will be expected to fix his position visually and continue to navigate to the diversion point using visual and radio aids fixing as required. GPS (raw data latitude and longitude only) and RNAV may be used as aids to visual navigation.

Demonstration of radio aid tracking will be required at some stage; the Examiner will decide when to ask for this exercise to ensure efficient use of time and airspace this exercises may be combined with another section. He will nominate the NDB or VOR to be used and the track to be intercepted.

Throughout this section the applicant will be expected to demonstrate a satisfactory standard of flight

Section 4

This section may be flown at the base aerodrome or at an alternate aerodrome nominated by the Examiner before flight. Applicants will be expected to carry out a safe and expeditious join to the circuit. This involves entry to the most convenient point in the circuit with the aeroplane in the appropriate configuration and at the correct speed. Applicants will be expected to carry out a number of approaches and landings (usually 'touch and go' landings) involving the following:

Normal landing
Cross wind landing (when practical)

1. Go around from a low height/altitude
2. Short field or Performance landing. This may be combined with a simulated bad visibility/low level circuit. In order to assess this exercise the Examiner may limit the amount of runway available.
3. Approach and landing with idle power (SE only). The Examiner may limit the amount of runway available.
4. Approach and landing without the use of flaps
5. Post flight action. The applicant will be responsible for taxying and parking, after landing and shut down checks and the completion of aeroplane documentation.

Throughout this section the applicant is also responsible for ATC liaison, altimetry and lookout.

Section 5

The items of this section may be combined with Sections 1 through 4. The Examiner will simulate an abnormal or emergency situation; the applicant is expected to carry out the appropriate emergency actions by touch drills only. Emergency radio calls should be made aloud but not transmitted. Applicants should not assume that any simulated emergency is complete until told by the Examiner.

Section 6

Applicants attempting the Skill Test in a multi-engine aeroplane (not centre-line thrust) will be expected to fly the exercises in Section 6. At a safe height after take-off the Examiner will simulate an engine failure by closing one of the throttles. The applicant will be expected to retain control of the aeroplane, identify the 'failed' engine and carry out the appropriate engine shut down and propeller feathering procedures using touch drills. On completion of these drills, because the applicant's actions would have resulted in the engine security and propeller pitch being set as required, the Examiner or the safety pilot will be responsible for setting zero thrust and the management of the (simulated) failed engine. This section may, at the discretion of the Examiner, be combined with Sections 1 through 5 of the flight.

Flight Simulator or Flight & Navigation Procedure Trainer

The following items may be performed in an FNPT II or FFS:

1. Airwork (Section 2) - items c and e (iv)
2. Abnormal and Emergency Procedures (Section 5) - all items
3. Simulated Asymmetric Flying (Section 6) - all items

The simulator or FNPT II must be approved for the purpose and of the same aeroplane type/class as used for the remainder of the skill test.

2 Helicopter

	CPL (H) SKILL TEST
EASA reference:	Part FCL Subpart D and Appendix 4
Who can test:	FE (CPL) The SFE is to nominate an Examiner for the third and subsequent Series. • When an attempt is taken as two flights both the en-route procedure and general handling are to be conducted by the same Examiner.
Test format:	• Skill Test as described in App.4 to PART-FCL. The test may be conducted in two parts on the same day by the same Examiner. If the test is unable to be completed, the test form shall be marked 'incomplete'. If the incomplete test is completed on a subsequent date then a new Examiners report form shall be used. • If the applicant does not already hold the rating then the TK oral questions for SEH type ratings are required to be assessed and recorded (see Rating Skill Test Table/Briefing).
Notes:	**Training** • Applicants must have completed the relevant syllabus of training as prescribed by Part FCL and present evidence of completion of all the training and a recommendation from the ATO for the test. • If the test is to be conducted on a Multi-Engine aircraft then applicants must comply with the Class/type rating requirements for ME aircraft at Part FCL Subpart H.
Validity:	All relevant sections of the test must be completed within 6 months.

Module 8 – Instrument Rating – IR (Aeroplane and Helicopter)

A guide to the structure of the IR skill test for the IRE and proficiency checks for the IRE and CRE .

All items of the skill test should be performed utilising the Flight Test Standards of Module 3/4 and Tolerances of Module 5.

1 Aeroplane

Quick Reference:

Table 4 A	**IR SKILL TEST**
Part-FCL reference	Appendix 7 to Part-FCL
Who can test:	IRE (an IRE or suitably authorised CRE may conduct the IR revalidation or renewal proficiency check)
Form used:	National Forms

1.1 General

The skill test and proficiency check will be performed according Appendix 6 to Part-FCL

The skill test form is divided into six sections:

Section 1 Pre-flight operations and departure
Section 2 General handling
Section 3 En-route procedures
Section 4 Precision approach procedures
Section 5 Non- precision approach procedures
Section 6 Simulated asymmetric flight (if applicable)

1.2 Conduct of Test/Check

GM1 FCL.1015
The duration of the flight shall be at least one hour.

The duration of the total test/check might be at least 3 hours. All sections of the test/check are to be completed in the course of the flight. The sequence of the sections may vary, depending of the circumstances and the briefing of the Examiner.

The Aeroplane
The aeroplane for the IR - Skill tests/Proficiency checks shall be suitably equipped to simulate instrument meteorological conditions and suitably equipped for instrument flight training.

The composition of the flight crew and role of the Examiner/Safety Pilot
An applicant shall fly the aeroplane/helicopter from a position where the pilot-in-command functions can be performed and carry out the test as if there was no other crew member. The FE shall take no part in the operation of the aeroplane/helicopter, except when intervention is necessary in the interest of safety or to avoid unacceptable delay of other traffic. Whenever the Examiner or another pilot functions as a co-pilot during the test, the privileges of the instrument rating will be restricted to multi-pilot operations. This restriction may be removed by the applicant carrying out another initial instrument rating skill test acting as if there was no other crew member on a single-pilot aeroplane/helicopter. The final responsibility for the flight rests with the PIC.

The minimum flight crew necessary for the conduct of skill tests conducted as single pilot operations must comprise of the applicant, the Examiner and, if applicable, a safety pilot. The applicant shall fly the aeroplane and will be acting as the Pilot in Command. If a safety pilot is required he/she will be an instructor who is qualified to act as Pilot in Command on the aeroplane type or class being used for the test and will be responsible as the Pilot in Command for the safety and general operation of the aeroplane. However, the final responsibility for the flight rests with the PIC.

The Briefings
The Pre-flight briefing should be according to Module 2 of this FEM.
If the Examiner will not occupy a pilot seat during the test/check he must ensure that the safety pilot is briefed on the required methods of:
1. simulation of instrument conditions
2. simulation of an engine failure
3. removal of radio aid information when required
4. actions to take in case of an actual emergency
5. use of the radio if required to perform the test
6. any other item to be determined by the Examiner

The de-briefing and the assessment of the test will be according to Module 2 of this FEM.

The Skill test
The flight test items of the Skill Test/Proficiency check has to be performed according to the Flight Test Standards in Module 3.

Test Tolerances
The Test Tolerances of Module 5 are used throughout the whole flight test. However, as the circumstances of each test/check conducted by an Examiner may vary, it is also important that an Examiner's test/check assessment takes into account any adverse condition(s) encountered during the test/check.

2 Helicopter

Quick reference:

	IR (H) SKILL TEST
EASA reference:	Part FCL Subpart G and Appendix 7
Who can test:	Staff IRE or IRE nominated by L&TS. The SFE is to nominate an Examiner for the third and subsequent Series.
Test format:	• Complete the schedule shown on the form in Appendix 7 to PART-FCL
Notes:	Training • Applicants must have completed the relevant syllabus of training as prescribed by Part FCL and present evidence of completion of all the training and a recommendation from the ATO for the test.
	IR (H) REVALIDATION/RENEWAL
EASA reference:	Part FCL Subpart H and Appendix 9
Revalidation:	12 months validity The revalidation may be flown within 3 months of the due date, the new validity being 12 months from the end of the month of that due date. When the revalidation is flown as part of a proficiency check then the IR will be valid for the same period as the type rating.
Who can test:	TRE, IRE The SFE is to nominate an Examiner for the third and subsequent Series.
Form used:	National Form
Form guidance:	• Countersign applicant's logbook as PIC under supervision after a successful test. If test failed applicant records as a dual. • Check applicants application form and enter test details.
Test format:	

Module 9 – Type and Class Ratings (Aeroplane and Helicopter)

A guide to the structure of the skill test for rating issue and the revalidation proficiency check for the FE, TRE, CRE and SFE.
All items of the proficiency check test should be performed utilising the Flight Test Standards of Module 3/4 and Tolerances of Module 5.

1 Aeroplane

Quick Reference:

Part-FCL reference	Appendix 9 to Part-FCL
Who can test:	TRE, CRE, SFE; FE for SP class/type rating, except for SP high performance complex aeroplanes
Form used:	National Form

Conduct of Test/Check

SPA

Appendix 9 to Part-FCL

CONTENT OF THE TRAINING, SKILL TEST/PROFICIENCY CHECK

4. Unless otherwise determined in the operational suitability data established in accordance with Part-21, the syllabus of flight instruction shall comply with this Appendix. The syllabus may be reduced to give credit for previous experience on similar aircraft types, as determined in the operational suitability data established in accordance with Part-21.
5. Except in the case of skill tests for the issue of an ATPL, when so defined in the operational suitability data established in accordance with Part-21 for the specific type, credit may be given for skill test items common to other types or variants where the pilot is qualified.

Expanded guidance

Profiles are to be planned to make efficient use of time and airspace. The test and check profiles are not dissimilar to those used for initial skill tests (PPL, CPL and IR). However, the Examiner should avoid wasting flight time beyond that required for the applicant to display the required skills and should generally expect to be able to apply a practical approach to the test. The requirement of skills tests is for the applicant to demonstrate his knowledge and handling of procedures in a new environment. Proficiency checks should display the practical experience of the applicant with his performance of the required items assessed against safe standards of aeroplane handling and flight management.
Test standards for each item of test/check are shown at Module 3. The accuracy tolerances are shown at Module 5.

GM1 FCL.1015

An Examiner should plan a test/check flight so that the flight time in an aeroplane or ground time in an approved STD is not less than 60 minutes.

Synthetic Training Devices (STDs)

Items which may be trained and tested in an STD are identified in PART-FCL requirements. STDs used are to have been approved for the purpose by the Authority. The device can be identified by the Examiner through its certificate, a unique authorisation number and validity.

MPA

MPA and SP High Performance Complex Aeroplanes skill test and proficiency check the profiles may be conducted using the guidance in Module 10.

2 Helicopters

Quick Reference

	SPH/MPH TYPE SKILL TEST
EASA Reference:	Part FCL Subpart H and Appendix 9
Who Can Test:	FE CPL (H), FE PPL (H), TRE(H) as authorised. Following failure of the second series notify the SFE. The SFE is to nominate an Examiner for the third and subsequent Series.
Form Used:	National Form
Test Format:	• Note the Examiner is required to exercise judgment in conducting the test/check given particular circumstances or aircraft types. The non-mandatory items on the form give the Examiner room to adjust the flight test to suit operational conditions or helicopter type. Those items that are not labeled 'M' (for mandatory) do not mean that the item must always be ignored. It is not satisfactory simply to fly the basic minimum profile, without assessing the pilot's ability to operate those aircraft systems that are necessary for the safe operation of the aircraft type, in both normal and abnormal conditions. • If the test is to be completed on a SHE, the Examiner is required to conduct an oral TK test for which the applicant requires 75% to pass.
Notes:	**Training** • Applicants must have completed the relevant syllabus of training as prescribed by Part FCL and present evidence of completion of all the training and a recommendation from the ATO for the test. • If the test is to be conducted for a first MEH type, then applicants must meet the requirements of EASA FCL 720.H. **Revalidate by Experience:** A pilot who successfully completes an LST for an additional type can achieve revalidation for other types in accordance with below: **SEP Types** as listed in AMC1 FCL.740.H(a)(3) may be revalidated by conducting the check/test on one of the applicable types, provided the applicant has completed at least 2 hours as PIC in the validity period on each of the other types to be revalidated. **SET Types** of a maximum AUM of 3175 kg may be revalidated by conducting the check/test on one of the applicable types held, provided the applicant has: (i) Completed at least 300 hours as PIC of helicopters; and (ii) Completed 15 hours on each of the types held; (iii) Completed at least 2 hours as PIC flight time on each of the other type(s) during the validity period. Notes: (i) The Examiner shall ensure that there is a rotation of types tested on. (ii) the licence endorsement for the type ratings revalidated by experience shall show EXP in the date of test and the same validity expiry date as that on which the LPC was completed.

	SPH/MPH TYPE /IR PROFICIENCY CHECK REVALIDATION/RENEWAL
EASA Reference:	Part-FCL Subpart H and Appendix 9
Who Can Test:	FE CPL (H), FE PPL (H), TRE (H) as authorized. The SFE is to nominate an Examiner for the third and subsequent Series.
Form Used:	National Form
Test Format:	Note: The Examiner is required to exercise judgment in conducting the test/check given particular circumstances or aircraft types. The non-mandatory items on the form give the Examiner room to adjust the flight test to suit operational conditions or helicopter type. Those items that are not labeled 'M' (for mandatory) do not mean that the item must always be ignored. It is not satisfactory simply to fly the basic minimum profile, without assessing the pilot's ability to operate those aircraft systems that are necessary for the safe operation of the aircraft type, in both normal and abnormal conditions.
Notes:	**Revalidation** A proficiency checks can be flown up to 3 months before the expiry date with no loss to the original expiry date, provided the candidate has completed 2 hours as a pilot (which may include the duration of the LPC) have been completed on the type in the 12 months preceding the expiry. The licence can be signed by the FE to the end of the calendar month for the new expiry date. **Renewal** For a renewal the applicant has to present to the Examiner with a certificate from an ATO to verify whether refresher training was required and the training completed (note the ATO assessment certificate is required even if refresher training was not required). AMC1 FCL.740(b)(1) states refresher training requirements as < 3 months no training required. >3 months <1 year min 2 training sessions >1 year <3 years min 3 training sessions >3 years 'complete an add type course The Examiner may only sign the applicants licence if the renewal is <3 years after the expiry date and if the rating appears of the front page of the licence (types listed in item XII, ratings, certificates and privileges) and in the C of R section. **To Revalidate by Experience:** See SPH/MPH TYPE SKILL TEST **IR** Applicants with a valid IR(H) on the type should revalidate their IR(H) privileges as part of the check, however, if the IR(H) has to be assessed separately due to weather, it may be flown on a separate flight within the revalidation period and both flights should be signed off at the same time.

	MPH.IR(H) – Initial issue skill test conducted on MP(H)
Part-FCL reference	Appendix 9 to Part-FCL
Who can test:	TRE(H).
Form used:	National Forms
Test format:	The test is conducted in a similar manner to the IR(H) skill test conducted as SPH. The following considerations are required (also see under Notes); • The pre-flight briefing is to be attended by all flight crew members • The briefing must specify that the safety pilot will not exercise judgement decisions or pre-empt P1 requirements. The P1 is to call for all checks and equipment set-up. The following items are to be decided pre-flight: • The method for simulating engine failure. • The method of screening and limited panel practice. • Items which for safety reasons cannot be conducted in flight which may be checked by the Examiner by oral questioning • Any minima that the P1 is subject to by the aeroplane operator.
Notes:	Unless the Examiner is rated on the type he shall not take the co-pilot seat unless specifically authorised by the Authority. The safety pilot is to be qualified as a TRI(H) or equivalent and is to act as both lookout and safety pilot.
Revalidation:	IR(H) is valid only for helicopter type on which the skill test is completed. MPH type rating and MPH IR(H) is not valid for SPH role on type and vice-versa. If the rating lapses by more than 5 years it shall be renewed by MPH IR(H) renewal by an Examiner of the authority and by skill test. If the rating lapses by more than 7 years the entire IR(H) Skill Test and the IR Theoretical knowledge exams shall be completed again.

	SPH TYPE RATING LICENCE SKILL TEST
Part-FCL reference	PART-FCL Subpart F Appendix 3 to PART-FCL.240
Form used:	National Forms
Who can test:	AE(H) - SEH/MEH, FE(H) - PPL SEH, TRE(H) - SEH/MEH
Notes:	**Training** If the test is to be conducted on a Multi-Engine helicopter then applicants must have 70 hrs PIC helicopters and have completed the PART-FCL specified type rating requirements. The applicants must also have passed a written test set by the TRTO and approved by the Authority, on the helicopter type (75% pass mark). **Testing** Applicants not wishing to revalidate an IR(H) shall omit this Section.

	SPH TYPE RATING PROFICIENCY CHECK
Part-FCL reference	Appendix 3 to PART-FCL.240
Period:	12 months for all types (as defined in PART-FCL.220) Proficiency Checks can be flown up to 3 months before the expiry date with no loss to the original expiry date provided at least 2 flight hours have been completed on the type in the 12 month preceding expiry. If the expiry date is passed by less than 5 years the applicant may Renew the rating as above. If the expiry date has exceeded 5 years the National Authority may direct refresher training prior to a Renewal test flight
Who can test:	AE(H) - SEH/MEH, FE(H) - PPL SEH, TRE(H) - SEH/MEH
Form used:	National Form
Test format:	To revalidate by experience for SEH Piston group as shown in Appendix 1 to PART-FCL.245(b)(3): SEH Piston types as listed in Appendix 1 to PART-FCL.245(b)(3) may be revalidated by experience of 2 hours on each type in the 12 months preceding expiry provided a proficiency check is completed with an Examiner on one of the SEH Piston types on the list. The licence endorsement for the type ratings revalidated by experience shall show the same validity expiry date as that on which the proficiency check was completed.
Notes:	Applicants with a valid IR(H) on the type shall revalidate their IR(H) as part of the check. However if the IR(H) has to be assessed separately due to weather it may be flown on a separate flight within the revalidation/renewal period and both flights should be signed off at the same time.

Module 10 – Airline Transport Pilot Licence (Aeroplane) – ATPL (A) and Multi-Crew Pilot Licence

A guide to the structure of the ATPL and MPL skill test for the TRE and SFE

All items of the skill test should be performed utilising the Flight Test Standards of Module 3/4 and Tolerances of Module 5.

Aeroplane

Quick Reference:

Part-FCL reference	FCL.415.A; Appendix 9 to PART-FCL
Who can test:	TRE, SFE
Form used:	National Forms

Conduct of Test/Check

Expanded guidance

Appendix 9 to PART-FCL
Skill test and proficiency check for aeroplane type/class ratings and ATPL/MPL

FCL.415.A MPL - Practical skill

(b) On completion of the training course, the applicant shall pass a skill test in accordance with Appendix 9 to this Part, to demonstrate the ability to perform the relevant procedures and maneuvers with the competency appropriate to the privileges granted. The skill test shall be taken in the type of aeroplane used on the advanced phase of the MPL integrated training course or in an FFS representing the same type.

Test Format

1. The applicant shall have completed the required instruction in accordance with the syllabus.

2. Items to be covered in skill tests are given in the applicable appendix. With the approval of the Authority, several different skill test scenarios may be developed simulated line operations. The Examiner will select one of these scenarios. Flight simulators, if available and other training devices as approved shall be used.

3. In the case of single-pilot aeroplanes, with the exception of for single-pilot high performance complex aeroplanes, the applicant shall pass all sections of the skill test or proficiency check. If any item in a section is failed, that section is failed. Failure in more than one section will require the applicant to re-take the entire test or check again. Any applicant failing only one section shall take the failed section again. Failure in any section of the re-test or re-check including those sections that have been passed at a previous attempt will require the applicant to take the entire test or check again. For single- pilot multi-engine aeroplanes, section 6 of the relevant test or check, addressing asymmetric flight, shall be passed.

4. In the case of multi-pilot and single-pilot high performance complex aeroplanes, the applicant shall pass all sections of the skill test or proficiency check. Failure of more than five items will require the applicant to take the entire test or check again. Any applicant failing five or less items shall take the failed items again. Failure in any item on the re-test or re-check including those items that have been passed at a previous attempt will require the applicant to take the entire check or test again. Section 6 is not part of the ATPL or MPL skill test. If the applicant only fails or does not take section 6, the type rating will be issued without CAT II or CAT III privileges. To extend the type rating privileges to CAT II or CAT III, the applicant shall pass the section 6 on the appropriate type of aircraft.

    a) In case the applicant fails or does not take Section 6, only the type rating will be issued without Cat II or III privileges.
    b) Section 6 is not part of the ATPL skill test.

5. Further training may be required after a failed test. Failure to achieve a valid pass in all items in two attempts shall require further training as determined by the Examiner. There is no limit to the number of skill tests that may be attempted.

Conduct of the Test/Check - General

6. Should an applicant choose not to continue with a test for reasons considered inadequate by the Examiner, the applicant will be regarded as having failed those items not attempted. If the test is terminated for reasons considered adequate by the Examiner, only those items not completed shall be tested in a further flight.

7. At the discretion of the Examiner any manoeuvre or procedure of the test may be repeated once by the applicant. The Examiner may stop the test at any stage if it is considered that the applicant's competency requires a complete re-test.

8. Checks and procedures shall be carried out/completed in accordance with the authorised checklist for the aeroplane used in the test and, if applicable, with the MCC concept. Performance data for take-off, approach and landing shall be calculated by the applicant in compliance with the operations handbook, or flight handbook, for the aeroplane used. Decision heights/altitude, minimum descent heights/altitudes and missed approach point shall be determined by the applicant for the ATPL(A) and MPL.

9. The test for a multi-pilot aeroplane shall be performed in a multi-crew environment.

10. Another applicant, or another pilot, may function as second pilot. If an aeroplane, rather than a simulator, is used for the test/check, the second pilot shall be a TRI.

11. An applicant for the initial issue of an ATPL(A) or MPL shall be required to operate as 'pilot flying' (PF) during all sections of the test. The applicant shall also demonstrate the ability to act as 'pilot not flying' (PNF). The applicant may choose either the left hand or the right hand seat for the ATPL(A) test.

12. The test should be accomplished under IFR and as far as possible in a simulated commercial air transport environment. An essential element is the ability to plan and conduct the flight from routine briefing material.

Flight Test Tolerances

1. The applicant shall demonstrate the ability to:
   a) operate the aeroplane within its limitations;
   b) complete all manoeuvres with smoothness and accuracy;
   c) exercise good judgement and airmanship;
   d) apply aeronautical knowledge;
   e) maintain control of the aeroplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never in doubt;
   f) understand and apply crew co-ordination and incapacitation procedures, if applicable; and,
   g) communicate effectively with the other crew members, if applicable.

Module 11 – Assessment of Competence of Instructors (Aeroplane and Helicopter)

1 General

FCL.920 Instructor competencies and assessment

All instructors shall be trained to achieve the following competences:

— Prepare resources,
— Create a climate conducive to learning,
— Present knowledge,
— Integrate Threat and Error Management (TEM) and crew resource management,
— Manage time to achieve training objectives,
— Facilitate learning,
— Assess trainee performance,
— Monitor and review progress,
— Evaluate training sessions,
— Report outcome.

FCL.925 Additional requirements for instructors for the MPL

(a) Instructors conducting training for the MPL shall:
  (1) have successfully completed an MPL instructor training course at an ATO; and
  (2) additionally, for the basic, intermediate and advanced phases of the MPL integrated training course:
    (i) be experienced in multi-pilot operations; and
    (ii) have completed initial crew resource management training with a commercial air transport operator approved in accordance with the applicable air operations requirements.

(b) MPL instructors training course
  (1) The MPL instructor training course shall comprise at least 14 hours of training.
  Upon completion of the training course, the applicant shall undertake an assessment of instructor competencies and of knowledge of the competency-based approach to training.
  (2) The assessment shall consist of a practical demonstration of flight instruction in the appropriate phase of the MPL training course. This assessment shall be conducted by an Examiner qualified in accordance with Subpart K.

FCL.935 Assessment of competence

(a) Except for the multi-crew cooperation instructor (MCCI), the synthetic training instructor (STI), the mountain rating instructor (MI) and the flight test instructor (FTI), **an applicant for an instructor certificate** shall pass an assessment of competence in the appropriate aircraft category to demonstrate to an Examiner qualified in accordance with Subpart K the ability to instruct a student pilot to the level required for the issue of the relevant licence, rating or certificate.

(b) This assessment shall include:
  (1) the demonstration of the competencies described in FCL.920, during pre- flight, post-flight and theoretical knowledge instruction;
  (2) oral theoretical examinations on the ground, pre-flight and post-flight briefings and in-flight demonstrations in the appropriate aircraft class, type or FSTD;
  (3) exercises adequate to evaluate the instructor's competencies.

(c) The assessment shall be performed on the same class or type of aircraft or FSTD used for the flight instruction.

(d) When an assessment of competence is required for revalidation of an instructor certificate, an applicant who fails to achieve a pass in the assessment before the expiry date of an instructor certificate shall not exercise the privileges of that certificate until the assessment has successfully been completed.

GM1 FCL.900 Instructor certificates

GENERAL

(a) Nine instructor categories are recognised:
  (1) FI certificate: aeroplane (FI(A)), helicopter (FI(H)), airship (FI(As)), sailplane (FI(S)) and balloon (FI(B));
  (2) TRI certificate: aeroplane (TRI(A)), helicopter (TRI(H)), powered-lift aircraft (TRI(PL));
  (3) CRI certificate: aeroplane (CRI(A));
  (4) IRI certificate: aeroplane (IRI(A)), helicopter (IRI(H)) and airship (IRI(As));
  (5) SFI certificate: aeroplane (SFI(A)), helicopter (SFI(H)) and powered-lift aircraft (SFI(PL));
  (6) MCCI certificate: aeroplanes (MCCI(A)), helicopters (MCCI(H)), powered-lift aircraft(MCCI(PL)) and airships (MCCI(As));
  (7) STI certificate: aeroplane (STI(A)) and helicopter (STI(H));
  (8) MI certificate: (MI);
  (9) FTI certificate: (FTI).

(b) For categories (1) to (4) and for (8) and (9) the applicant needs to hold a pilot licence. For categories (5) to (7) no licence is needed, only an instructor certificate.

(c) A person may hold more than one instructor certificate.

2 Assessment of competences

AMC1 FCL.920 Instructor competencies and assessment

(a) Training should be both theoretical and practical. Practical elements should include the development of specific instructor skills, particularly in the area of teaching and assessing threat and error management and CRM.

(b) The training and assessment of instructors should be made against the following performance standards:

Competence	Performance	Knowledge
Prepare resources	(a) ensures adequate facilities; (b) prepares briefing material; (c) manages available tools.	(a) understand objectives; (b) available tools; (c) competency-based training methods.
Create a climate conducive to learning	(a) establishes credentials, role models appropriate behaviour; (b) clarifies roles; (c) states objectives; (d) ascertains and supports trainees needs.	(a) barriers to learning; (b) learning styles.
Present knowledge	(a) communicates clearly; (b) creates and sustains realism; (c) looks for training opportunities.	teaching methods.
Integrate TEM or CRM	makes TEM or CRM links with technical training.	HF, TEM or CRM.
Manage time to achieve training objectives	allocates time appropriate to achieving competency objective.	syllabus time allocation.
Facilitate learning	(a) encourages trainee participation; (b) shows motivating, patient, confident and assertive manner; (c) conducts one-to-one coaching; (d) encourages mutual support.	(a) facilitation; (b) how to give constructive feedback; (c) how to encourage trainees to ask questions and seek advice;
Assesses trainee performance	(a) assesses and encourages trainee self-assessment of performance against competency standards; (b) makes assessment decision and provide clear feedback; (c) observes CRM behaviour.	(a) observation techniques; (b) methods for recording observations.
Monitor and review progress	(a) compares individual outcomes to defined objectives;	(a) learning styles; (b) strategies for

	(b) identifies individual differences in learning rates; (c) applies appropriate corrective action.	training adaptation to meet individual needs.
Evaluate training sessions	(a) elicits feedback from trainees; (b) tracks training session processes against competence criteria; (c) keeps appropriate records.	(a) competency unit and associated elements; (b) performance criteria.
Report outcome	reports accurately using only observed actions and events.	(a) phase training objectives; (b) individual versus systemic weaknesses.

AMC1 FCL.935 Assessment of competence

GENERAL

(a) The format and application form for the assessment of competence are determined by the competent authority.

(b) When an aircraft is used for the assessment, it should meet the requirements for training aircraft.

(c) If an aircraft is used for the test or check, the Examiner acts as the PIC, except in circumstances agreed upon by the Examiner when another instructor is designated as PIC for the flight.

(d) During the skill test the applicant occupies the seat normally occupied by the instructor (instructors seat if in an FSTD, or pilot seat if in an aircraft), except in the case of balloons. The Examiner, another instructor or, for MPA in an FFS, a real crew under instruction, functions as the 'student'. The applicant is required to explain the relevant exercises and to demonstrate their conduct to the 'student', where appropriate. Thereafter, the 'student' executes the same maneuvers (if the 'student' is the Examiner or another instructor, this can include typical mistakes of inexperienced students). The applicant is expected to correct mistakes orally or, if necessary, by intervening physically.

(e) The assessment of competence should also include additional demonstration exercises, as decided by the Examiner and agreed upon with the applicant before the assessment. These additional exercises should be related to the training requirements for the applicable instructor certificate.

(f) All relevant exercises should be completed within a period of 6 months. However, all exercises should, where possible, be completed on the same day. In principle, failure in any exercise requires a retest covering all exercises, with the exception of those that may be retaken separately. The Examiner may terminate the assessment at any stage if they consider that a retest is required.

3 Conduct of the Assessment

The Assessment of competence has to be performed according to FCL.935. The test comprises oral theoretical examinations on the ground, pre-flight and post flight briefings and in-flight demonstrations.

The accommodation for the theoretical part of the test shall be a suitable location for giving a test lecture to students.
The following books and documents should be available for the briefings and the flight:

1. AIP
2. AIC's
3. Navigation material, charts, computer
4. Flight handbooks
5. Instructor guides
6. Training syllabus
7. Pilot licences

Appropriate literature/training aids representative of the test aeroplane should be used for the lecture and briefings.

Theoretical Knowledge

The aim of the oral examination is to determine the applicant's knowledge of the following subjects:

1. Air Law
2. Aeroplane/Helicopter General Knowledge
3. Flight Performance and Planning
4. Human Performance and Limitations
5. Meteorology
6. Navigation
7. Operational Procedures
8. Principles of Flight
9. Administration

The oral examination will normally take 1 hour but is dependent on both type, of test and the applicant's performance.

1. Questions should be of a practical nature related to the subjects.
2. Questions may be answered using whatever training aids or equipment is available.
3. Questions may be answered by referring to the books, documents and diagrams.

If the test is used for the issue or revalidation of an IRI, the questions should also focus on instrument flying techniques, IR regulations and procedures.
If the test is used for the issue or revalidation of a FI(ME) or CRI(ME) specific questions relating to asymmetric flight are to be asked.

The Lecture

The applicant is required to give a lecture under test conditions to his student 'audience', one of whom will be the Examiner.

1. The subject of the lecture will be determined by the Examiner and preferably chosen from the exercises from AMC1 FCL .930.FI, AMC1 FCL .930.TRI, AMC1 FCL.930.CRI and AMC1 FCL.930.IRI, AMC1 FCL.930.MCCI.
2. Time of preparation for the test lecture is agreed upon beforehand with the Examiner.
3. The lecture should not exceed 45 minutes.
4. The Examiner, in the case he is acting as a student, should clearly explain which level he must be considered as a student.
5. Applicants must expect to use whatever training aids and equipment are available. However - training aids and equipment should reflect current technical standards.
6. An aeroplane/helicopter model, representing the test aeroplane/helicopter, is essential.

The four basic components of the lecture will be:

1. The Aim
2. Principles of Flight (briefest reference only)
3. The Air Exercises (what and how and by whom)
4. Airmanship (weather, flight safety etc.)

The lecture should contain:

1. a good time frame
2. a structural "build-up"
3. no untrue statements
4. a theoretical explanation of the practical lesson
5. explanation of airmanship
6. mention of common failures of students during exercises
7. explanation of the corrections on the failures
8. all practical flight details
9. check questions for the audience
10. time for the audience to ask questions

During the lecture the applicant will be assessed by the Examiner on the following items:

1. Visual presentation
2. Technical accuracy
3. Clarity of explanation
4. Clarity of speech
5. Instructional techniques
6. Use of models and aids
7. Student participation

The Pre-flight Briefing

The pre-flight briefing should be a short practical briefing of about 15 to 20 minutes.
The Examiner should explain that throughout the flight he, or another instructor, will act as the student. The level of experience of this student has to be clearly identified.

The assessment of the pre-flight briefing will be in accordance with the assessment items of paragraph 11.3, above.

The Flight

When the assessment is conducted in a simulator the assessment should include a minimum of 3 hours of flight instruction.
When the assessment is conducted in an aeroplane the assessment should include a minimum of 1 hour of flight instruction.

The chosen exercise briefed during the pre-flight briefing should be the main exercise of the flight.

Before the flight the Examiner should clearly identify:
1. which exercises the applicant is to fly without instructional 'patter',
2. which exercises are to be taught to the student, and
3. which exercises may be demonstrated to the student but with accompanying 'patter'.

During the skill test the applicant shall occupy the seat normally occupied by the instructor. The Examiner, acting as a student, must act according to the instructions given by the applicant. The Examiner should not deliberately set traps, but act as a normal student and introduce common student errors for the applicant to identify and correct. It is also important that the Examiner is consistent in his response, so that mistakes mastered by the applicant, no longer occur.

The applicant should:
1. demonstrate instructional knowledge of common errors of students in performing exercises.
2. demonstrate and simultaneously explain the flight exercises.
3. analyse and correct simulated common errors.

The applicant will be expected to demonstrate personal standards of flying ability and airmanship to the level of a professional pilot.
Assessment of the flight will contain:
1. Arrangement of Demo
2. Synchronisation of Speech with Demo
3. Correction of Faults
4. Aeroplane Handling
5. Instructional Technique
6. General Airmanship/Safety
7. Positioning, Use of Airspace

Post Flight Briefing

Assessment of the post flight briefing will be according the items of paragraph 11.3, above.

4 Records

None

5 Annexes, Forms

For forms to be used visit the Austro Control homepage under
http://www.austrocontrol.at/piloten/pilotenlizenzen/formulare_part-fcl

For special instructions regarding Examiner visit the Austro Control homepage under
http://www.austrocontrol.at/luftfahrtbehoerde/safety/hinweise__anweisungen/zpa

For possible information regarding Examiners visit the Austro Control homepage under
http://www.austrocontrol.at/luftfahrtbehoerde/safety/hinweise__anweisungen/zph

For FAQ´s which may be interesting for Examiners visit the Austro Control homepage under
http://www.austrocontrol.at/piloten/pilotenlizenzen/faq/flugpruefer

6 Relevant documents

None

7 Table of revision

Version		Reason
Nr.	Date	
1.0	16.11.2010	First issue
2.0	16.03.2011	Revision of Pages 19, 22, 23
3.0	07.01.2014	Complete adaption to Part-FCL, as well as layout and content amendments
4.0	12.03.2014	Amendments of the Limitations of Aeroplanes and Helicopters

8 Glossary/Abbreviations

None