



Notice of Proposed Amendment 2014-29 (C)(1)

Amendments to Commission Regulation (EU) No 1178/2011 (the Aircrew Regulation)

Flight Examiner Manual

Module 1 & Module 2 (Chapters 3, 4, 5 & 6)

RMT.0188 (FCL.002(a)) & RMT.0189 (FCL.002(b)) — 17.12.2014

EXECUTIVE SUMMARY

This Notice of Proposed Amendment (NPA) addresses a safety and regulatory coordination issue related to flight crew licensing.

The main objective of this NPA is to introduce the long syllabus and Learning Objectives (LOs) for professional licences and instrument ratings in the EASA regulatory system.

The NPA also aims to resolve any inconsistencies identified after the adoption of the FCL Implementing Rules. This is necessary to ensure that the EASA regulatory system reflects the state of the art, and specifically the best practices developed in the Member States, in the field of pilot training.

The following Safety Recommendations were taken into consideration for the development of this NPA: SR AUST-2012-006, SR BELG-2010-010, SR UNKG-2006-130, SR SWED-2010-008, SR SWED-2012-006, SR FRAN-2013-033, SR FRAN-2013-035 and SR FRAN-2013-017.

The specific objective of this NPA is to maintain a high level of safety for flight crews, to ensure harmonised implementation of the Aircrew Regulation, and to consider at all levels the importance of General Aviation issues.

— **NPA 2014-29 (A)** contains the Explanatory Note and the changes to the rule text of 'Annex I — Part-FCL', 'Annex II — Conditions for the conversion of existing national licences and ratings for aeroplanes and helicopters', and 'Annex III — Conditions for the acceptance of licences issued by or on behalf of third countries'.

Due to the number of the proposed changes and the complexity of the text that was amended twice after its initial publication, the decision was taken to base the NPA on the amended text and to publish the changes to Annexes I, II and III in a consolidated version.

— **NPA 2014-29 (B)** contains the changes to the existing AMC and GM text.

— **NPAs 2014-29 (C)(1), (C)(2) and (C)(3)** contain the new AMC with the Flight Examiner Manual (FEM).

— **NPAs 2014-29 (D)(1) and (D)(2)** contain the new AMC with the Learning Objectives (LOs).

The proposed changes are expected to increase safety, reduce regulatory burden on Member States, improve harmonisation, ensure compliance with ICAO, and improve proportionality of the rules for General Aviation by applying the principles of the 'General Aviation Road Map'.

As indicated above, NPA 2014-29 (C)(1) contains the first part of the FEM. For the Explanatory Note, please refer to NPA 2014-29 (A).

Applicability		Process map	
Affected regulations and decisions:	Commission Regulation (EU) No 1178/2011, as amended; ED Decision 2011/016/R, as amended.	Concept Paper:	No
Affected stakeholders:	Pilots; training organisations; instructors, examiners; national competent authorities.	Terms of Reference:	21.7.2011
Driver/origin:	Safety; level playing field; proportionality; RMT FCL.001.	Rulemaking group:	Yes
Reference:	EASA NPA 2008-17 'Implementing Rules for Pilot Licensing'.	RIA type:	None
		Technical consultation during NPA drafting:	Yes
		Duration of NPA consultation:	3 months
		Review group:	TBD
		Focussed consultation:	No
		Publication date of the Opinion:	2015/Q4
		Publication date of the Decision:	2015/Q4



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AMC3 FCL.1015 Examiner Standardisation**Flight Examiner Manual****1. Module 1 — Common requirements****1.1. List of acronyms**

AoC	Assessment of Competence
AOC	Air Operator Certificate
AOM	Aerodrome Operating Minima
CAT	Commercial Air Transport
OPC	Operator Proficiency Check
Part-ARA	Annex VI 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
Part-FCL	Annex I to Commission Regulation (EU) No 1178/2011 of 3 November 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
Part-ORA	Annex V to Commission Regulation (EU) No 1178/2011 of 3 November 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
PC	Proficiency Check
ST	Skill Test

For all other acronyms, please refer to GM1 FCL.010.

1.2. Glossary of terms

Applicant	means a pilot requiring a rating
Candidate	means the person being tested or checked by the examiner applicant. This person may be a pilot for whom the test or check would be required, or the inspector of the competent authority who is conducting the examiner certification acceptance test.
Conversion report	means a report on the basis of which a licence may be converted into a Part-FCL licence.
Credit	means the recognition of prior experience or qualifications.
Credit report	means a report on the basis of which prior experience or qualifications may be recognised.
Examiner	means the person certified to conduct a skill test, proficiency check or an assessment of competence.
Examiner applicant	means the person seeking certification as an examiner.
Flight manual or other appropriate document	means aeroplane flight manual, rotorcraft flight manual, pilot operating manual, operation manuals, navigation charts or any other document required to ensure safety of flight.



FSTD qualification	means the level of technical ability of an FSTD as defined in the compliance document.
FSTD user	means the organisation or person requesting training, checking or testing through the use of an FSTD to an ATO.
Inspector	means the inspector of the competent authority conducting the examiner assessment of the competence assessment.
Operator (policy)	means the person or organisation responsible for the management of the aircraft and their applicable operating procedures. This information may be included in the AFM, pilot operating manuals, and company operations manuals as applicable.

For all other definitions, please refer to Commission Regulation (EU) No 1178/2011, as last amended, and to FCL.010.

1.3. Introduction

Commission Regulation (EU) No 290/2012, the so-called EASA Aircrew Regulation, which amended Commission Regulation (EU) No 1178/2011¹, entered into force on 8 April 2012. The requirements of this Regulation replace JAR-FCL 1, 2 and 3.

Competent authorities issue flight crew licences and ratings in accordance with the requirements of the Aircrew Regulation. Competent authorities shall ensure that any applicant is qualified by reason of knowledge, competence and skill to hold the appropriate licence or rating. Competent authorities shall, therefore, certify suitably experienced and qualified pilots as examiners to conduct the necessary skill tests, proficiency checks, or assessments of competence.

Examiners shall hold a certificate detailing the privileges that they may exercise. Examiners shall be mindful that they are applying European Union law when conducting skills tests, proficiency checks or assessments of competence, even within their own organisation.

The intention/purpose of this document is not to conflict with the EASA Aircrew Regulation or statute laws, where applicable. Whilst every effort is made to ensure that all information is correct at the time of publication, EASA reserves the right to amend this document as required to accommodate changes to the primary authority documents, to correct errors and omissions, or to reflect changes to policies and best practices.

Any advice concerning the conduct of skill tests, proficiency checks or assessments of competence should be sought from the examiner's certifying authority.

Any comments concerning the editorial content of this document should be addressed to EASA.

This document is designed to be used as a stand-alone Flight Examiner Manual (FEM).

Examiners shall remember that when conducting tests, checks or assessments, they are administering the Aircrew Regulation in the interest of the safety of civil aviation.

¹ 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 (OJ L 311, 25.11.2011, p. 1).



With the exception of extracts from Part-FCL, this Manual contains guidance for competent authorities with regard to the training and management of examiners. The guidance and procedures contained in this Manual will enhance the application of standards and best practices in order to meet the Part-FCL requirements.

Furthermore, the document is intended to provide all examiners with a convenient and current reference to assist them in the conduct of their examining duties. It is essential that examiners use current and standardised practices.

References and extracts from Part-FCL are for guidance only, and competent authorities and examiners should not rely on those references and extracts unless they are checked against the most recent version of the Aircrew Regulation and its GM and AMC material. Where the content of this document conflicts with the official publication, then the official publication must be used.

The FEM comprises 12 modules.

Each module contains quick-reference tables. Their purpose is to provide the examiner with a precis of the essential requirements for each skill test, proficiency check, or assessment of competence.

An index of the topics within each module is shown at the beginning of that module. The following list describes the purpose of each module.

— Module 1: Common requirements

A guide to the common requirements for all examiner categories.

— Module 2: Test standards: Aeroplanes

A guide to the structure of the skill test and proficiency checks for LAPL(A), PPL(A), CPL(A), ATPL(A), MPL(A), IR(A)

— Module 3: Test standards: Helicopters

A guide to the structure of the skill test and proficiency checks for LAPL(H), PPL(H), CPL(H), ATPL(H), IR(H)

— Module 4: Test standards: Powered-lift (RESERVED)

A guide to the structure of the skill test and proficiency checks for PPL(PL), CPL(PL), ATPL(PL), MPL(PL) (RESERVED)

— Module 5: Test standards: Airships (RESERVED)

A guide to the structure of the skill test and proficiency checks for PPL(As), CPL(As), ATPL(As) (RESERVED)

— Module 6: Test standards: Balloons (RESERVED)

A guide to the structure of the skill test and proficiency checks for LAPL(B) and BPL (RESERVED)

— Module 7: Test standards: Sailplanes (RESERVED)

A guide to the structure of the skill test and proficiency checks for LAPL(S) and SPL (RESERVED)



— Module 8: Test standards: Class ratings

A guide to the structure of the skill test and proficiency checks for SPA/TMG (excluding SPHPCA) and Class seaplane

— Module 9: Test standards: Type ratings

A guide to the structure of the skill test and proficiency checks for MPA, SPHPCA and MPH

— Module 10: Test standards: Mountain rating

A guide to the structure of the skill test and proficiency checks for the Mountain rating (RESERVED)

— Module 11: Instructor Certificate — Assessment of Competence

A guide to the structure of the assessments of competence for TRI(A) & (H), SFI(A) & (H), FI(A) & (H), CRI(A), IRI(H), TRI(SPH), SFI/TRI(PL), FI(S) and FI(B).

— Module 12: Test standards: Senior examiners

A guide to the structure of the standardisation and assessments of competence for senior examiners (RESERVED)

Examiners are expected to be familiar with Module 1 plus any other module(s) that relate to their privileges as examiners. The document is designed to allow examiners to print Module 1 plus any other module(s) that relate to their privileges and can be used as a reference document.

1.4. Aircrew Regulation — Part-ARA

1.4.1. ARA.FCL.200 Examiner endorsement of licences

Before specifically authorising certain examiners to revalidate or renew ratings or certificates, the competent authority shall develop appropriate procedures.

1.4.2. ARA.FCL.205 Monitoring of examiners

The competent authority is required to develop an oversight programme to monitor the conduct and performance of examiners. It is required to take into account:

- (a) the number of examiners it has certified; and
- (b) the number of examiners certified by other competent authorities exercising their privileges within their territory where the competent authority exercises oversight.

The competent authority is also required to maintain a list of examiners it has certified. The list shall state the privileges of the examiners and shall be published and kept up to date by the competent authority.

The competent authority is required to develop procedures to designate examiners for the conduct of skill tests.

1.4.3. ARA.FCL.210 Information for examiners

Part-FCL provides that the competent authority may provide examiners it has certified and examiners certified by other competent authorities exercising their privileges in their



territory with safety criteria to be observed when skill tests and proficiency checks are conducted in an aircraft.

This document is intended to provide examiners with guidance and instructions on discharging their duties. The competent authority may provide supplementary guidance and instructions specific to its territory.

This information should be covered during the examiner standardisation course.

1.4.4. ARA.FCL.215 Validity period

- (a) When issuing or renewing a rating or certificate, the competent authority or, in the case of renewal, an examiner specifically authorised by the competent authority, shall extend the validity period until the end of the relevant month.
- (b) When revalidating a rating, an instructor or an examiner certificate, the competent authority, or an examiner specifically authorised by the competent authority, shall extend the validity period of the rating or certificate until the end of the relevant month.
- (c) The competent authority, or an examiner specifically authorised for that purpose by the competent authority, shall enter the expiry date on the licence or the certificate.
- (d) The competent authority may develop procedures to allow privileges to be exercised by the licence or certificate holder for a maximum period of 8 weeks after successful completion of the applicable examination(s), pending the endorsement on the licence or certificate. This is often referred to as a 'temporary certificate'. The examiner should ensure they are aware of the extent of their privileges.

Examiner shall ensure they only exercise the privileges bestowed upon them by their Competent Authority.

1.4.5. ARA.FCL.250 Limitation, suspension or revocation of licences, ratings and certificates

- (a) The competent authority shall limit, suspend or revoke as applicable a pilot licence and associated ratings or certificates in accordance with ARA.GEN.355 in, but not limited to, the following circumstances:
 - (1) obtaining the pilot licence, rating or certificate by falsification of submitted documentary evidence;
 - (2) falsification of the logbook and licence or certificate records;
 - (3) the licence holder no longer complies with the applicable requirements of Part-FCL;
 - (4) exercising the privileges of a licence, rating or certificate when adversely affected by alcohol or drugs;
 - (5) non-compliance with the applicable operational requirements;
 - (6) evidence of malpractice or fraudulent use of the certificate; or
 - (7) unacceptable performance in any phase of the flight examiner's duties or responsibilities.



- (b) The competent authority may also limit, suspend or revoke a licence, rating or certificate upon the written request of the licence or certificate holder.
- (c) All skill tests, proficiency checks or assessments of competence conducted during suspension or after the revocation of an examiner's certificate will be invalid.

1.5. Aircrew Regulation — Part-FCL

1.5.1. FCL.1000 Examiner certificates

- (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, unless otherwise determined in this Part, have 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 outside the territory of the Member States in an ATO, the competent authority of the Member State may issue an examiner certificate to an applicant holding a pilot licence, rating, or certificate issued by a third country in accordance with Annex 1 to the Chicago Convention, for which they are authorised to instruct, and in any case at least a CPL, provided that the applicant:
 - (i) complies with the requirements established in this Subpart for the issue of the relevant examiner certificate; and
 - (ii) 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.

GM1 FCL.1000

When new aircraft are introduced, requirements such as to hold a licence and rating equivalent to the one for which the skill test is being conducted, or to have adequate flight experience, may not be possible to comply with. In this case, to allow for the first ratings for these aircraft to be issued to applicants, competent authorities need the possibility to issue a specific certificate that does not have to comply with the requirements established in this Subpart.

The competent authority should only give these certificates to holders of other examiner certificates. As far as possible, preference should be given to persons with experience in similar types or classes of aircraft, for example, in aircraft having the same kind and number of engines or rotors and of the same order of mass or technology.

The certificate should ideally be limited in validity to the time needed to qualify the first examiners for the new aircraft in accordance with this Subpart, but in any case it should not exceed the 3 years established in the rule.

1.5.2. FCL.1005 Limitations of privileges in case of vested interests

Examiners shall not conduct:

- (a) skill tests or assessments of competence of applicants for the issue of a licence, rating or certificate 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;
- (b) skill tests, proficiency checks or assessments of competence whenever they feel that their objectivity may be affected.

GM1 FCL.1005(b)

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 economic interests or political affiliations, etc.

1.5.3. 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.

AMC1 FCL.1010

When evaluating the applicant's background, the competent authority should evaluate the personality and character of the applicant, and his/her cooperation with the competent authority.

The competent authority may also take into account whether the applicant has been convicted of any relevant criminal or other offenses, taking into account national law and principles of non-discrimination.

1.5.4. 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 skill tests, proficiency checks and assessments of competence;
 - (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.
- ▼ M3
- (4) a briefing on the need to review and apply the items in (3) when conducting skill tests, proficiency checks or assessments of competence of an applicant for which the competent authority is not the same one that issued the examiner's certificate; and
 - (5) an instruction on how to get access to these national procedures and requirements of other competent authorities when needed;
- (c) Holders of an examiners certificate shall not conduct skill tests, proficiency checks or assessments of competence of an applicant for which the competent authority is not the same one that issued the examiner's certificate, unless they have reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

AMC1 FCL.1015

GENERAL

- (a) The competent authority may provide the course itself or through an arrangement with an ATO. This arrangement should clearly state that the ATO is acting under the management system of the competent authority.
- (b) 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).
- (c) The competent authority or the ATO should determine any further training required before presenting the candidate for the examiner assessment of competence.

CONTENT

- (d) The training should comprise:
 - (1) 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.
 - (2) Examiners should also be briefed on the protection requirements for personal data, liability, accident insurance and fees, as applicable in the member state concerned.
 - (3) All items above are the core knowledge requirements for an examiner and are recommended as the core course material. This core course may be studied before recommended examiner training is commenced. The core course may utilise any suitable training format.
 - (4) Practical training consisting of at least:
 - (i) knowledge and management of the test for which the certificate is to be sought. These are described in the relevant modules in the FEM;
 - (ii) knowledge of the administrative procedures pertaining to that test or check.
 - (5) 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.

- (6) If examiner privileges are to include the conduct of proficiency checks for the revalidation or renewal of an instrument rating, practical instruction should include the conduct of at least four instrument check profiles in the role of examiner, 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 both FSTD and aircraft are required, at least one of the instrument check profiles should be conducted in an FSTD.
- (7) For extension of an examiner certificate to further types (as required for TRE), further practical training on the new type may be required, consisting of the conduct of at least one test or check profile in the role of examiner on the new type, 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. A further examiner check on the new type may be required, which may be supervised by an inspector of the competent authority or a suitably authorised senior examiner.

AMC2 FCL.1015 Examiner standardisation

STANDARDISATION ARRANGEMENTS FOR EXAMINERS

LIMITATIONS

- (a) An examiner should allow an applicant adequate time to prepare for a test or check, normally not more than 1 hour.
- (b) An examiner should plan a test or check flight so that all required exercises can be performed while allowing sufficient time for each of the exercises and with due regard to the weather conditions, traffic situation, ATC requirements and local procedures.

PURPOSE OF A TEST OR CHECK

- (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.

CONDUCT OF TEST OR CHECK

- (f) An examiner shall 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.



- (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.
- (h) Marginal or questionable performance of a test or check item should not influence an examiner's assessment of any subsequent items.
- (i) An examiner should verify the requirements and limitations of a test or check with an applicant during the pre-flight briefing.
- (j) When a test or check is completed or discontinued, an examiner should debrief the applicant and give reasons for items or sections failed. In case of a failed or discontinued skill test and proficiency check, the examiner should provide appropriate advice to assist the applicant in re-tests or re-checks.
- (k) Any comment on, or disagreement with, an examiner's test or check evaluation or assessment made during a debriefing will be recorded by the examiner on the test or check report, and will be signed by the examiner and countersigned by the applicant.

EXAMINER PREPARATION

- (l) An examiner should supervise all aspects of the test or check flight preparation, including, where necessary, obtaining or assuring an ATC 'slot' time.
- (m) An examiner will plan a test or check in accordance with Part-FCL requirements. Only the manoeuvres 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.

EXAMINER APPROACH

- (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.

ASSESSMENT SYSTEM

- (o) Although test or 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. An examiner should terminate a test or check only when it is clear that the applicant has not been able to demonstrate the required level of knowledge, skill or proficiency and that a full re-test will be necessary or for safety reasons. An examiner will use one of the following terms for assessment:
 - (1) a 'pass', provided that the applicant demonstrates the required level of knowledge, skill or proficiency and, where applicable, remains within the flight test tolerances for the licence or rating;
 - (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 or check is not completed;
 - (iii) the aim of exercise is completed but at the expense of safe 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;
 - (vi) the intervention of the examiner or safety pilot is required in the interest of safety.
- (3) a 'partial pass' in accordance with the criteria shown in the relevant skill test appendix of Part-FCL.

METHOD AND CONTENTS OF THE TEST OR CHECK

- (p) Before undertaking a test or check an examiner shall verify that the aircraft or FSTD intended to be used is suitable and appropriately equipped for the test or check.
- (q) A test or check flight shall be conducted in accordance with the flight manual or other appropriate manual and, if applicable, the AOH.
- (r) A test or check flight shall be conducted within the limitations contained in the operations manual of an ATO.
- (s) Contents:
- (1) a test or check is comprised of:
 - (i) oral examination on the ground (where applicable);
 - (ii) pre-flight briefing;
 - (iii) in-flight exercises;
 - (iv) post-flight debriefing.
 - (2) oral examination on the ground shall include:
 - (i) aircraft general knowledge and performance;
 - (ii) planning and operational procedures;
 - (iii) other relevant items or sections of the test or check.
 - (3) pre-flight briefing shall include:
 - (i) test or check sequence;
 - (ii) power setting, speeds and approach minima, if applicable;
 - (iii) safety considerations.
 - (4) in-flight exercises shall include each relevant item or section of the test or check;
 - (5) post-flight debriefing shall include:
 - (i) assessment or evaluation of the applicant;



- (ii) documentation of the test or check with the applicant's FI present, if possible.
- (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.
- (u) When manoeuvres are to be flown by sole reference to instruments, the examiner should ensure that a suitable method of screening is used to simulate IMC.
- (v) An examiner should maintain a flight log and assessment record during the test or check for reference during the post or flight debriefing.
- (w) An examiner should be flexible to the possibility of changes arising to pre-flight briefings due to ATC instructions, or other circumstances affecting the test or check.
- (x) Where changes arise to a planned test or check an examiner should be satisfied that the applicant understands and accepts the changes. Otherwise, the test or check flight should be terminated.
- (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 shall be tested during a subsequent test or check.
- (z) An examiner may terminate a test or check at any stage, if it is considered that the applicant's competency requires a complete re-test or re-check.

GM1 FCL.1015 Examiner standardisation

- (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, SPL or BPL;
 - (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 2 hours for a LAPL, SPL or BPL, 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 a LAPL(B) or BPL and 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.
- (d) For the LAPL(S) and SPL test or check flight the flight time must be sufficient to allow that all the items in each test or check section can be fully completed. If not all the items can be completed in one flight, additional flights have to be done.

1.5.5. FCL.1020 Examiners assessment of competence

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.

AMC1 to FCL.1020

GENERAL

- (a) The competent authority may nominate either one of its inspectors or a senior examiner to assess the competence of applicants for an examiner certificate.

DEFINITIONS

- (b) Definitions:

- (1) 'Inspector': the inspector of the competent authority conducting the examiner competence assessment;
- (2) 'Examiner applicant': the person seeking certification as an examiner;
- (3) 'Candidate': the person being tested or checked by the examiner applicant. This person may be a pilot for whom the test or check would be required, or the inspector of the competent authority who is conducting the examiner certification acceptance test.

CONDUCT OF THE ASSESSMENT

- (c) An inspector of the competent authority or a senior examiner will observe all examiner applicants conducting a test on a 'candidate' in an aircraft for which examiner certificate is sought. Items from the related training course and test or check schedule will be selected by the inspector for examination of the 'candidate' by the examiner applicant. Having agreed with the inspector the content of the test, the examiner applicant will be expected to manage the entire test. This will include briefing, the conduct of the flight, assessment and debriefing of the 'candidate'. The inspector will discuss the assessment with the examiner applicant before the 'candidate' is debriefed and informed of the result.

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);
 - (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.

ASSESSMENT

- (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.

DEBRIEFING

- (g) The examiner applicant should demonstrate to the inspector the ability to conduct a fair, unbiased debriefing of the 'candidate' based on identifiable factual items.



A balance between friendliness and firmness should be evident. The following points should be discussed with the 'candidate', at the applicant's discretion:

- (1) advise the candidate on how to avoid or correct mistakes;
- (2) mention any other points of criticism noted;
- (3) give any advice considered helpful.

RECORDING OR DOCUMENTATION

- (h) The examiner applicant should demonstrate to the inspector the ability to complete the relevant records correctly. These records may be:
- (1) the relevant test or check form;
 - (2) licence entry;
 - (3) notification of failure form;
 - (4) relevant company forms where the examiner has privileges of conducting operator proficiency checks.

DEMONSTRATION OF THEORETICAL KNOWLEDGE

- (i) The examiner applicant should demonstrate to the inspector a satisfactory knowledge of the regulatory requirements associated with the function of an examiner.

1.5.6. FCL.1025 Validity, revalidation and renewal of examiner certificates

- (a) Validity. An examiner certificate shall be valid for 3 years.
- (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) when one of the skill tests, proficiency checks or assessments of competence completed during the last year of the validity period in accordance with (1) was 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, or comply with the requirements of FCL.1020.
 - (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.

AMC1 FCL.1025**EXAMINER REFRESHER SEMINAR**

The examiner refresher seminar should follow the content of the examiner standardisation course, included in AMC1 FCL.1015, and take into account specific contents adequate to the category of examiner affected.

1.5.7. FCL.1030 Conduct of skill tests, proficiency checks and assessments of competence

- (a) When conducting skill tests, proficiency checks and assessments of competence, examiners shall:
- (1) ensure that communication with the applicant can be established without language barriers;
 - (2) verify that the applicant complies with all the qualification, training and experience requirements in this Part for the issue, revalidation or renewal of the licence, rating or certificate for which the skill test, proficiency check or assessment of competence is taken;
 - (3) make the applicant aware of the consequences of providing incomplete, inaccurate or false information related to their training and flight experience.
- (b) After completion of the skill test or proficiency check, the examiner shall:
- (1) inform the applicant of the result of the test. In the event of a partial pass or fail, the examiner shall inform the applicant that he/she may not exercise the privileges of the rating until a full pass has been obtained. The examiner shall detail any further training requirement and explain the applicant's right of appeal;
 - (2) in the event of a pass in a proficiency check or assessment of competence for revalidation or renewal, endorse the applicant's licence or certificate with the new expiry date of the rating or certificate, if specifically authorised for that purpose by the competent authority responsible for the applicant's licence;
 - (3) provide the applicant with a signed report of the skill test or proficiency check and submit without delay copies of the report to the competent authority responsible for the applicant's licence, and to the competent authority that issued the examiner certificate. The report shall include:
 - (i) a declaration that the examiner has received information from the applicant regarding his/her experience and instruction, and found that experience and instruction complying with the applicable requirements in this Part;
 - (ii) confirmation that all the required manoeuvres and exercises have been completed, as well as information on the verbal theoretical knowledge examination, when applicable. If an item has been failed, the examiner shall record the reasons for this assessment;



(iii) the result of the test, check or assessment of competence.

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- (iv) a declaration that the examiner has reviewed and applied the national procedures and requirements of the applicant's competent authority if the competent authority responsible for the applicant's licence is not the same one that issued the examiner's certificate;
- (v) a copy of the examiner certificate containing the scope of his/her privileges as examiner in the case of skill tests, proficiency checks or assessments of competence of an applicant for which the competent authority is not the same one that issued the examiner's certificate.

- (c) Examiners shall maintain records for 5 years with details of all skill tests, proficiency checks and assessments of competence performed and their results.
- (d) Upon request by the competent authority responsible for the examiner certificate, or the competent authority responsible for the applicant's licence, examiners shall submit all records and reports, and any other information, as required for oversight activities.

AMC1 FCL.1030(b)(3)

OBLIGATIONS FOR EXAMINERS APPLICATION AND REPORT FORMS

Common application and report forms can be found:

- (a) For skill tests or proficiency checks for issue, revalidation or renewal of LAPL, BPL, SPL, PPL, CPL and IR in AMC1 to Appendix 7;
- (b) For training, skill tests or proficiency checks for ATPL, MPL or class and type ratings, in AMC1 to Appendix 9;
- (c) For assessments of competence for instructors, in AMC5 FCL.935.

Examiner should confirm with their certifying authority and that of the applicant which application and report forms should be used.

1.6. Summary of privileges for flight examiners

	FE(A)
Part-FCL reference:	FCL.1005.FE(a)
Privileges for PPL(A)	Skill tests for the issue of the PPL(A) and skill tests and proficiency checks for associated single-pilot class and type ratings, except for single-pilot high-performance complex aeroplanes, provided that the examiner has completed at least 1 000 hours of flight time as a pilot on aeroplanes or TMGs, including at least 250 hours of flight instruction.
Privileges for CPL(A)	Skill tests for the issue of the CPL(A) and skill tests and proficiency checks for the associated single-pilot class and type ratings, except for single-pilot high-performance complex aeroplanes, provided that the examiner has completed at least 2 000 hours of flight time as a pilot on aeroplanes or TMGs, including at least 250 hours of flight instruction.
Privileges	Skill tests and proficiency checks for the LAPL(A), provided that the examiner has completed at least 500 hours of flight time as a pilot on aeroplanes or



for LAPL(A)	TMGs, including at least 100 hours of flight instruction.
Privileges for Mountain Rating (A)	Skill tests for the issue of a mountain rating, provided that the examiner has completed at least 500 hours of flight time as a pilot on aeroplanes or TMGs, including at least 500 take-offs and landings of flight instruction for the mountain rating.
	FE(H)
Part-FCL reference:	FCL.1005.FE(b)
Privileges for PPL(H)	Skill tests for the issue of the PPL(H) and skill tests and proficiency checks for single-pilot single-engine helicopter type ratings endorsed on a PPL(H), provided that the examiner has completed 1 000 hours of flight time as a pilot on helicopters, including at least 250 hours of flight instruction.
Privileges for CPL(H)	Skill tests for the issue of the CPL(H) and skill tests and proficiency checks for single-pilot single-engine helicopter type ratings endorsed on a CPL(H), provided that the examiner has completed 2 000 hours of flight time as a pilot on helicopters, including at least 250 hours of flight instruction.
Type ratings for PPL(H) and CPL(H)	Skill tests and proficiency checks for single-pilot multi-engine helicopter type ratings endorsed on a PPL(H) or a CPL(H), provided that the examiner has met the requirements in (1) or (2), as applicable, and holds a CPL(H) or ATPL(H) and, when applicable, an IR(H).
Type ratings for LAPL(H)	Skill tests and proficiency checks for the LAPL(H), provided that the examiner has completed at least 500 hours of flight time as a pilot on helicopters, including at least 150 hours of flight instruction.
	FE(As) AUTHORISATION
Part-FCL reference:	FCL.1005.FE(c)
Type ratings for PPL(As) and CPL(As)	The privileges of an FE for airships are to conduct skill tests for the issue of the PPL(As) and CPL(As) and skill tests and proficiency checks for the associated airship type ratings, provided that the examiner has completed 500 hours of flight time as a pilot on airships, including 100 hours of flight instruction.
	FE(S)
Part-FCL reference:	FCL.1005.FE(d)
SPL and LAPL(S)	Skill tests and proficiency checks for the SPL and the LAPL(S), provided that the examiner has completed 300 hours of flight time as a pilot on sailplanes or powered sailplanes, including 150 hours or 300 launches of flight instruction.
Extension to commercial operations	Proficiency checks for the extension of the SPL privileges to commercial operations, provided that the examiner has completed 300 hours of flight time as a pilot on sailplanes or powered sailplanes, including 90 hours of flight instruction.
Extension to TMG	Skill tests for the extension of the SPL or LAPL(S) privileges to TMG, provided that the examiner has completed 300 hours of flight time as a pilot on sailplanes or powered sailplanes, including 50 hours of flight instruction on TMG.
	FE(B)
Part-FCL reference:	FCL.1005.FE(c)
BPL, LAPL(B)	Skill tests for the issue of the BPL and the LAPL(B) and skill tests and



and addition of class or group	proficiency checks for the extension of the privileges to another balloon class or group, provided that the examiner has completed 250 hours of flight time as a pilot on balloons, including 50 hours of flight instruction.
Extension to commercial operations	Proficiency checks for the extension of the BPL privileges to commercial operations, provided that the examiner has completed 300 hours of flight time as a pilot on balloons, of which 50 hours in the same group of balloons for which the extension is sought. The 300 hours of flight time shall include 50 hours of flight instruction.

1.7. Summary of privileges for Type Rating Examiners (TREs)

	TRE(A) & TRE(PL)
Part-FCL reference:	FCL.1005.TRE(a)
Initial type ratings	Skill tests for the initial issue of type ratings for aeroplanes or powered-lift aircraft, as applicable.
Revalidation and renewal of type and instrument ratings	Proficiency checks for revalidation or renewal of type and IRs.
ATPL(A) issue	Skill tests for the issue of ATPL(A).
MPL issue	Skill tests for the issue of MPL, provided that the examiner has complied with the requirements in FCL.925.
TRI(A) or SFI(A) certificates	Assessments of competence for the issue, revalidation or renewal of a TRI or SFI certificate in the applicable aircraft category, provided that the examiner has completed at least 3 years as a TRE.
	TRE(H)
Part-FCL reference:	FCL.1005.TRE(b)
Type ratings	Skill tests and proficiency checks for the issue, revalidation or renewal of helicopter type ratings.
Instrument ratings and extension from SE(H) to ME(H)	Proficiency checks for the revalidation or renewal of IRs, or for the extension of IR(H) from single-engine to multi-engine helicopters, provided that the TRE(H) holds a valid IR(H).
ATPL(H) issue	Skill tests for the issue of ATPL(H).
TRI(H) and SFI(H)	Assessments of competence for the issue, revalidation or renewal of a TRI(H) or SFI(H) certificate, provided that the examiner has completed at least 3 years as a TRE.

1.8. Summary of privileges for Class Rating Examiners (CREs)

	CRE
Part-FCL reference:	FCL.1005.CRE
Class and type ratings	Skill tests for the issue of class and type ratings; revalidation or renewal of class and type ratings.
Revalidation	Revalidation and renewal of IRs, provided that the CRE complies with the



and renewal of instrument ratings	requirements in FCL.1010.IRE(a).
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1.9. Summary of privileges for Synthetic Flight Examiners (SFEs)

	SFE(A) & SFE(PL)
Part-FCL reference:	FCL.1005.SFE(a)
Type ratings	Skill tests and proficiency checks for the issue, revalidation or renewal of type ratings for multi-pilot aeroplanes or powered-lift aircraft, as applicable.
Instrument ratings	Proficiency checks for the revalidation or renewal of IRs, provided that the SFE complies with the requirements in FCL.1010.IRE for the applicable aircraft category.
ATPL(A)	Skill tests for the issue of ATPL(A).
MPL	Skill tests for the issue of MPL, provided that the examiner complies with the requirements in FCL.925.
SFI	Assessments of competence for the issue, revalidation or renewal of an SFI certificate in the relevant aircraft category, provided that the examiner has completed at least 3 years as an SFE.
	SFE(H)
Part-FCL reference:	FCL.1005.SFE(b)
Type ratings	Skill tests and proficiency checks for the issue, revalidation and renewal of type ratings; and
Instrument ratings	proficiency checks for the revalidation and renewal of IRs, provided that the SFE complies with the requirements in FCL.1010.IRE(b).
ATPL(H)	Skill tests for the issue of ATPL(H).
SFI(H)	Skill tests and proficiency checks for the issue, revalidation or renewal of an SFI(H) certificate, provided that the examiner has completed at least 3 years as an SFE.

1.10. Summary of privileges for Flight Instructor Examiners (FIEs)

	FIE(A)
Part-FCL reference:	FCL.1005.FIE(a)
FI(A), CRI(A), IRI(A) and TRI(A) for SP(A)	The privileges of an FIE on aeroplanes are to conduct assessments of competence for the issue, revalidation or renewal of certificates for FI(A), CRI(A), IRI(A) and TRI(A) on single-pilot aeroplanes, provided that the relevant instructor certificate is held.
	FIE(H)
Part-FCL reference:	FCL.1005.FIE(b)
FI(A), IRI(H) and TRI(H) for SP(A)	The privileges of an FIE on helicopters are to conduct assessments of competence for the issue, revalidation or renewal of certificates for FI(H), IRI(H) and TRI(H) on single-pilot helicopters, provided that the relevant instructor certificate is held.



	FIE(As), (S), (B) AUTHORISATION
Part-FCL reference:	FCL.1005.FIE(c)
Instructor certificates	The privileges of an FIE on sailplanes, powered sailplanes, balloons and airships are to conduct assessments of competence for the issue, revalidation or renewal of instructor certificates on the applicable aircraft category, provided that the relevant instructor certificate is held.

1.11. Summary of privileges for Instrument Rating Examiners (IREs)

	IRE
Part-FCL reference:	FCL.1005.IRE
Instrument ratings	The privileges of the holder of an IRE certificate are to conduct skill tests for the issue, and proficiency checks for the revalidation or renewal of IRs.

1.12. Testing and checking in FSTDs or in aircraft

1.12.1. General

Skill tests, proficiency checks or assessments of competence shall not be conducted on a flight for the purpose of commercial air transport.

1.12.2. Aeroplane

Safety considerations for testing in aircraft

- (a) The examiner is expected to use good judgement when simulating any emergency or abnormal procedure, having regard to local conditions and aircraft safety throughout.
- (b) Flight testing/checking has potentially more hazards than routine flight schedules that can be exacerbated by the determination of the applicant to produce the result and by the examiner giving the applicant too much latitude in this endeavour.
- (c) All the situations cannot be predicted, as the scope of items in the skill test/proficiency check 'Normal and abnormal operations' and 'Abnormal and emergency procedures' sections is too large to cover in great detail. Some general guidance is listed below.
 - (i) It is strongly recommended that the briefing to the applicant be very clear as to the order of events.
 - (ii) Stalling must be carried out at a safe height. Care must be taken not to overtemp/torque the engine on the recovery.
 - (iii) Aircraft systems must not be used outside the Flight Manual limits.
 - (iv) Early recognition of the failure of the compass and attitude indicators must not be carried out in an aeroplane; only in an FSTD.
 - (v) Early recognition of the failure of the localiser and glideslope indications must not be carried out in an aeroplane; only in an FSTD.
 - (vi) Simulated engine failure after take-off in an aeroplane must be carried out at a safe height.



- (vii) Unusual attitude recoveries after loss of the main compass and attitude indicators:
- In case aeroplanes are fitted with standby attitude/compass reference systems, they should be used. In case the aircraft is fitted with Radio Magnetic Indicators (RMIs), these should be simulated failed.
 - The Flight Manual limits for g and VA should be observed.
 - It is the correct recovery technique that is being assessed, so extreme manoeuvres are not necessary.
 - The examiner must intervene early if the recovery technique is wrong or the recovery is slow.
 - Exercise will be conducted in VMC throughout.
- (1) Engine shutdowns should be carried out at a safe height above the ground.
- (2) The test/check report must reflect exactly the debriefing.

1.12.3. Helicopters

- (a) The examiner is expected to use good judgement when simulating any emergency or abnormal procedure, having regard to local conditions and aircraft safety throughout.
- (b) Flight testing/checking has potentially more hazards than routine flight schedules that can be exacerbated by the determination of the applicant to produce the result and by the examiner giving the applicant too much latitude in this endeavour.
- (c) All potentially hazardous situations cannot be predicted, as the scope of items in the skill test/proficiency check 'Normal and Abnormal Operations' and 'Abnormal and Emergency Procedures' sections is too large to cover in great detail. Some general guidance is listed below.
- (i) It is strongly recommended that the briefing to the applicant be very clear as to the order of events that will comprise the test/check flight.
- (ii) During simulated engine failure exercises, the examiner should maintain constant awareness of RRPM and the candidate's control inputs and must be ready to intervene throughout. In multi-engine helicopters without Full-Authority Digital Electronic Control (FADEC), the examiner should be ready to instantly reinstate an idled engine in the event that the working engine fails. In multi-engine helicopters with a FADEC controlled training mode, the examiner should be aware of the recovery time taken by the FADEC to reinstate a simulated failed engine in the event that the working engine fails.
- (iii) Simulated engine failure exercises should not be initiated when the helicopter is erroneously manoeuvred into the height/velocity avoid area.
- (iv) Autorotation must be carried out at a safe height with minimum heights/altitudes for the start and completion of the exercise clearly agreed. Roles to be played by the examiner and the candidate with reference to engine control/handling must also be clearly agreed. Care must be taken not to overspeed/overtorque the engine(s)/gearbox during a recovery into powered flight.



- (v) Simulation of aircraft systems failures must not result in the helicopter being operated beyond the Flight Manual limitations.
- (vi) Unusual attitude recoveries:
 - The Flight Manual limits for RRPM, angle of bank and yaw rate should be observed.
 - It is the correct recovery technique that is being assessed, so extreme manoeuvres are not necessary.
 - The examiner must intervene early if the recovery technique is wrong or the recovery is slow.
 - The exercise will be conducted in VMC throughout.

1.12.4. Powered-lift

RESERVED

1.12.5. Airships

RESERVED

1.12.6. Balloons

RESERVED

1.12.7. Sailplanes

RESERVED

1.12.8. Simulators

- (a) Prior to any test, an examiner shall ensure that the simulator is qualified and has a valid user approval, if required.
- (b) Before the test/check, the technical log shall be checked for defects and a visual inspection should be made of the area in the vicinity of the simulator.
- (c) All applicants shall be given a briefing on the fire alarm system, emergency stop, safety equipment and use of escape ropes, etc., prior to the test.
- (d) All persons should be in full harness before the selection of motion.
- (e) The test should be flown in real time, as far as practicable. However, judicious use of freeze is acceptable, as long as the applicant is aware of this fact and it is not used to assist the crew who are not thinking about their position and the time remaining to complete any relevant checklists, etc.
- (f) Some thought should be given to the value of continuing a simulated smoke emergency during landing, to see how the crew cope with the limited visibility. If smoke is not available, some form of etched goggles or other method should be used.
- (g) Differences between the company aircraft and the simulator must be briefed and pointed out to the crew prior to the test/check.



- (h) Persons authorised to conduct tests in the simulator must themselves have had practical training in its operation, especially with regard to the functionality of the instructor operating station or console, and in simulating a realistic ATC environment.
- (i) Following the test, examiners must ensure that any defects, unserviceabilities and lost time are recorded in the operator's technical log system. Simulator operators are required to monitor defects as part of their quality system, and due to the fact that reliability forms an essential part of the qualification and approval process. Therefore, should a simulator engineer rectify a defect during the detail, it is still important that the fault be recorded in the technical log. Where these have caused significant disruption or persisted for more than one check, the examiner should inform the person responsible for standards at the organisation at the earliest convenience.
- (j) Questions have been raised regarding what level of turbulence should be selected in the simulator when conducting a test or check. Specifying a level of turbulence that should be 'routinely applied' would detract from permitting the examiner to apply their own judgement. The level of turbulence should reflect the weather conditions considered normal for the area of operation and the specific weather briefing being provided to the candidates. In the event that benign weather conditions were provided in the simulator scenario (to simulate a high-pressure influence for example), then a minimum level of turbulence might be appropriate. If the specific weather briefing reflected turbulence, then such turbulence should be reflected in the simulator. If the exercise is to cover high-wind scenarios whether for crosswind handling or wind shear, etc., then an appropriate level of turbulence should be reflected. The selection of zero turbulence during a test/check would not be considered acceptable. If the examiner is conducting a training exercise which requires precise flying limits to be demonstrated during a particular event (e.g. LVO training, where the candidate is being shown the visual references that are present at 200, 100 and 50 ft respectively), the examiner may wish to have no external influences that may alter the aircraft's position in respect of the runway (i.e. no wind and no turbulence). In this case, it would be quite acceptable not to have any turbulence selected.

1.13. Flight test tolerances

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 always assured;
- (f) understand and apply crew coordination and incapacitation procedures, if applicable; and
- (g) communicate effectively with the other crew members, if applicable.



1.14. Conduct of test/check

Each module contains a chapter titled 'Content of test'. Each skill test, proficiency check or assessment of competent is based on an appendix contained within the Aircrew Regulation. Each chapter details the phase of test, check or assessment and is broken down into four sections. Section 1 contains the objective statement; Section 2 contains the skills required to be demonstrated by the applicant; Section 3 contains the knowledge required to be demonstrated by the applicant; and Section 4 contains the attitudes required to be demonstrated by the applicant. Each section is described below in generic terms and in detail within each applicable chapter.

When referring to the tables 'PHASE OF TEST OR CHECK', the examiner should note that the contents are not exclusive or inclusive. The content is a guide for the examiner when considering the objectives, skill and knowledge that an applicant should be able to demonstrate. The examiner is expected to use their judgement when considering the competency of the applicant. It is not intended that an applicant not demonstrating competence in a single element contained under the skill, knowledge or attitude contained within the table should result in a failure.

In some areas there may be a recurring item; this may represent or reflect that it would be reasonable for the applicant to achieve the item in more than one area. It is not intended to expose the applicant to multiple opportunities to fail the same item. An example might be passenger or departure briefing. This may appear more than once prior to the pre-take-off checks, only in that it is reasonable for the applicant to compete this item prior to the pre-take-off check but may be delivered in the pre-start, pre-taxi or pre-take-off checks. The examiner should allow the applicant to use their judgment as regards the appropriate place to achieve the objective. Another example would be where compliance with ATC instructions appears in several sections, the intent is that the applicant would fail that item only where non-compliance was demonstrated within that section's event.

Several of the test schedules require the assessment of airmanship. In general, and especially for SPA tests, this term covers non-technical areas of competency. Airmanship is the combination of all resources enabling the pilot to safely handle the aircraft with due regard to rules and regulations and good aviation practice, whatever the circumstances, both on the ground and in flight.

It is not practical to provide a comprehensive list of airmanship considerations; however, the 'ATTITUDE' column describes 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 are compromised. It is the examiner's role to observe how the applicant manages the resources available 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/attitude competencies when conducting tests/checks; they are also required to expect the same from applicants.

Attitudes should be considered on the skill test and proficiency check in order to enhance the crew's non-technical skills and promote good practices. An applicant should not be



failed for attitudes alone; since attitudes are an integral part of the competency, they should normally be viewed in conjunction with the applicant's technical knowledge and skills. In addition, attitudes should also be fully integrated throughout the debriefing.



PHASE OF TEST OR CHECK	
Title of assessed item taken from the Part-FCL schedule	
OBJECTIVE	This cell describes the applicant's proficiency to be assessed by the examiner.
SKILL	This cell describes the competency criteria which the applicant is required to demonstrate: <ul style="list-style-type: none"> — manual aircraft control; — effective flight path management through proper use of the flight management system guidance and automation; — application of procedures.
KNOWLEDGE	This cell describes the knowledge required to meet the objective's proficiency requirements.
ATTITUDE	This cell describes the competency criteria encapsulated in airmanship, CRM, and threat and error management, such as: <ul style="list-style-type: none"> — situation awareness; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.
General	
In some phases of the flight there are competencies that apply to a group of manoeuvres, e.g. turns, or even to 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 to 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 at the end of the group identify the group.	

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



1.15. Conduct of the examiner

It is essential that all examiners apply a common standard. However, because flights may be conducted in different and sometimes varying conditions and circumstances, each examiner shall consider all aspects when assessing the flight. The examiner shall exercise sound judgement and impartiality throughout. To assist with this, each examiner should maintain a record of the event so that all aspects may be debriefed comprehensively.

The examiner may change the sequence of sections or manoeuvres to achieve an orderly and efficient flow of a practical flight having regard to existing conditions or circumstances, but shall not miss out any items. The examiner shall ensure that the event is completed efficiently and without wasting time.

Should a flight not proceed as briefed, the examiner shall remain flexible and alert in order to achieve as much as possible in the changed circumstances. In an aircraft, briefing applicants during the exercise for a change to the requirements is acceptable, but the examiner shall ensure that the applicant fully understands and accepts the changes, otherwise the flight should be suspended.

Most applicants will dislike the prospect of being tested. Some applicants may even become nervous, which might affect their performance. The attitude and approach of the examiner can help applicants to overcome these difficulties. The examiner shall establish a friendly and relaxed atmosphere, which will enable the applicant to fully demonstrate their abilities. A severe or hostile approach by the examiner should be avoided.

Careful consideration should be given when responding to a question from an applicant who is seeking an answer on how to carry out a particular approach to be flown during the event — an appropriate response would be the one which would facilitate the general understanding of the profile or procedure. It is also quite in order to choose a topic for revision — or to respond to such a request — and then to give a general training brief. Such topics may, for example, include single-engine profiles or non-precision approaches.

The examiner should make it clear to the applicant at the beginning of the examiner's briefing which elements of the day's proceedings are to be assessed as part of the event. Many examiners cover this with a broad statement, such as 'Everything you do today and tomorrow, planned or otherwise, will be assessed as part of the test/check.'

In simulators, examiners should conduct events based on real-time scenarios, with the distinct benefits of improved realism and, even more important, the need for crews to make decisions and act accordingly.

Substandard performance at any time, even when it occurs during training or relates to a stand-in pilot who is not subject to formal assessment, should not be ignored. Any crew member exhibiting such performance should be required to undergo remedial training before released back to normal operations.

A CAT operator is unlikely to conduct a stand-alone proficiency check; invariably, it will be combined with an Operator Proficiency Check (OPC) for reasons that are obvious to any examiner but might be less obvious to the applicant. It is, therefore, important when briefing to be specific in defining the purpose of a test/check, e.g. licensing proficiency check, operator proficiency check, or combined licensing/operator proficiency check.

1.16. Repeat items

Some proficiency checks permit the examiner to use their discretion to repeat an item. At attempt number one, the examiner may use their discretion to repeat any item(s) of the test/check once. The option to repeat any item is not a right of the applicant. As general guidance, the examiner should only exercise their discretion to repeat an item when they consider that the applicant has made a minor error and that the error can be corrected by debriefing. This discretion should not be used if further training is required. If retraining is required, it should be done prior to a retest, i.e. a second attempt. Repeats should not be carried over to another simulator detail/flight, unless the test was originally planned as a 2-day event. Repeats should not be passed on to another examiner. Retest item(s), attempt number two should not be repeated. The applicant should be aware of what they did wrong prior to repeating the item.

Although technically all items of the test schedule may be repeated once, this is not in the spirit of the repeat discretion. If the applicant's performance is such that several items need to be repeated, they are clearly not up to the required standard and the discretion to repeat should not be exercised further.

1.17. Pass/fail criteria

For all skill tests, proficiency checks and assessments of competence various flight test profiles are defined in the Aircrew Regulation. The detailed content will be covered in the applicable modules. Some appendices define the minimum test content.

Each skill test, proficiency check or assessment of competence will have its own pass/fail criteria. The details will be covered in each applicable module.

If the applicant is in the process of completing their first attempt at the skill test or proficiency check and they fail an item that they have previously passed, it is now recorded as a fail at attempt number one.

If an applicant fails to achieve a satisfactory standard in an item, they may be retested. The examiner may stop the skill test, proficiency check or assessment of competence at any stage if it is considered that the applicant's competency requires a complete retest or recheck.

Should the examiner consider that the applicant was not performing satisfactorily due to any external influence or distraction, then the exercise should not be assessed. An example of this may be noisy engineering work outside the simulator.

If pilots have presented themselves for a check and have not declared themselves unfit prior to the test, it is reasonable to assume that they would have presented themselves for a flight. It is not acceptable post-test for them to complain that they were unwell. The examiners should use their discretion when making such an assessment of fitness to fly.

A skill test or proficiency check conducted in a multi-pilot aeroplane or SPHPCA, which is operated for multi-pilot operations, shall be performed in a multi-crew environment and another applicant or another pilot may function as a second pilot. If an aeroplane is used for the skill test or proficiency check instead of a simulator, the second pilot shall be the examiner.



An applicant for the initial issue of a multi-pilot aeroplane type rating or ATPL(A) shall be required to operate as 'pilot flying' (PF) during all stages of the test. In addition, the applicant shall demonstrate the ability to act as 'pilot'.

1.18. Multiple certificates

Examiners who wish to have multiple authorisations for the purpose of commercial air transport may do so according to the following:

Type Rating Examiners (TREs), Synthetic Flight Examiners (SFEs), including examiners with SP HPC(A) privileges only:

Up to two aircraft only, in multi-pilot aircraft or SPHPCA types.

Class Rating Examiners (CREs) covering non-complex single-pilot class or type only:

- (a) three piston engine classes, or
- (b) three turbo propeller types, or
- (c) one turbo propeller type and one piston engine class, or
- (d) one turbo propeller type and any class (SEP or MEP).

Type Rating Examiners (TREs), Synthetic Flight Examiners (SFEs), including SPHPCA and Class Rating Examiners (CREs) covering non-complex single-pilot type:

One single-pilot type and one multi-pilot type.

The above mirrors the commercial air transport requirement for multiple type and class operations as described in AMC1 ORO.FC.240. Those examiners wishing to have non-commercial or public transport privileges may do so under the condition that they meet normal Part-FCL requirements and are unrestricted in the number of certificates they can hold.

1.19. Testing and checking on Annex II aircraft

Examiners should consult the applicants' competent authorities to determine whether an Annex II aircraft may be used for the skill test, proficiency check or assessment of competence.

1.20. Testing and checking in third countries

Examiners should consult the applicants' competent authorities to determine whether skill tests, proficiency checks or assessments of competence may be conducted in third countries.

1.21. Testing and checking on third-country aircraft

Examiners should consult the applicants' competent authorities to determine whether skill tests, proficiency checks or assessments of competence may be conducted on third-country aircraft.

1.22. Complaints and appeals

The competent authority which initially issued the pilot licence, except when the pilot has requested a change of competent authority and a transfer of their licensing and medical



records, will receive any complaint or appeal from a pilot. Candidates should consult the appropriate competent authority for details of any applicable appeal/complaint procedure.



2. Module 2 — Test standards: Aeroplanes

2.1. Chapter 1 — LAPL

RESERVED



2.2. Chapter 2 — PPL

RESERVED



2.3. Chapter 3 — Commercial Pilot Licence

2.3.1. Introduction

This module deals with the conduct of the CPL(A) test including a single-engine or multi-engine aeroplane class rating. It should be read in conjunction with Module 1.

2.3.2. Who may test (see the common requirements table in Module 1)

A suitably qualified Flight Examiner (FE(A)), provided that:

- (a) the examiner has completed at least 2 000 hours of flight time as a pilot on aeroplanes or TMGs;
- (b) the examiner has completed at least 250 hours of flight instruction;
- (c) the applicant's licence has been issued by the same competent authority as the examiner's; or
- (d) in the case of an applicant for which the competent authority is not the same one that issued the examiner certificate, the examiner shall have reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

2.3.3. Conduct of test/check

CPL(A) test candidates should be assessed on all aspects of the aeroplane operation. Sound basic handling skills are essential as well as airmanship, navigation, instrument flying, correct R/T phraseology and procedures, 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 FLIGHTS AND RELEVANT CLASS OR TYPE ITEMS

The following notes reflect the style and sequence of the briefing that the candidate may expect to hear. However, the examiner may vary the delivery of the briefing and may have to modify the sequence of the items to be briefed and flown. From pre-flight to post-flight, the candidate's general flight management and flying skills should be assessed.

All sections of the test are to be completed in the course of one flight. The sequence of the sections may vary, depending on the circumstances. The examiner's briefing should include the expected profile. Although the examiner is responsible for ensuring an efficient test, candidates must also be briefed to remain adaptable, particularly if weather conditions, ATC slot times, etc., dictate a different scenario during the flight.

A candidate for a test should receive instructions on the same class or type of aircraft to be used in the test and should be recommended by the organisation or the person responsible for the training. The candidate's training records should be made available to the examiner



for inspection prior to the conduct of the test. Examiners must be familiar with Appendix 3 to Part-FCL (Commission Regulation (EU) No 1178/2011) which sets out the training course requirements for CPL(A).

The test should be accomplished in a simulated commercial air transport environment in accordance with VFR rules. An essential element to be checked is the ability to plan and conduct the flight from routine briefing material.

Should the applicant choose to terminate a skill test for reasons considered inadequate by the examiner, the applicant should retake the entire skill test. If the test is terminated for reasons considered adequate by the examiner, only those sections not completed should be tested in a further flight.

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 candidate's demonstration of flying skills requires a complete retest.

A candidate should be required to fly the aircraft from a position where the PIC functions can be performed and to carry out the test as if no other crew member was present. Responsibility for the flight should be allocated in accordance with national regulations.

Checks should be completed in accordance with the checklist for the aircraft on which the test is being taken. During pre-flight preparation for the test, the candidate is required to determine power settings and speeds. Performance data for take-off, approach and landing should be calculated by the candidate in compliance with the Flight Manual or other appropriate document for the aircraft used.

2.3.4. Flight test tolerances

The following limits should apply, and should be corrected to make allowance for turbulent conditions, handling qualities and performance of the aircraft used.

Height: (Altitude)	
Normal flight	± 100 feet
Simulated engine failure	± 150 feet
Tracking on radio aids	± 5 degrees
Heading:	
Normal flight	± 10 degrees
Simulated engine failure	± 15 degrees
Speed:	
Take-off and approach	± 5 knots
All other flight regimes	± 10 knots



2.3.5. Content of the test

2.3.5.1. Detailed test standards

This part of the module gives guidance to the examiner on how to assess a candidate for a CPL(A).

Each section of the test (Sections 1 to 6) are described in text followed by a table which gives guidance to the examiner on how to assess each item of the test, using the key competencies model of:

Objective (of the test item), and the **Skill — Knowledge — Attitude** (to achieve the objective).

Examiners must remember that this guidance is designed to standardise the conduct of tests and is not exhaustive or specific to any aircraft or test scenario. Examiners must always be prepared to use their discretion to ensure that a fair and relevant scenario is presented to the candidate for the test.



Sample table

The table is separated into four rows as follows:

SECTION OF TEST	
Title of assessed item taken from the Part-FCL schedule	
OBJECTIVE	This cell describes the candidate's proficiency to be assessed by the examiner.
SKILL	This cell describes the competency elements that the candidate is required to demonstrate: <ul style="list-style-type: none"> — manual aircraft control; — effective flight path management through proper use of the flight management system guidance and automation; and — application of procedures.
KNOWLEDGE	This cell describes the knowledge required to meet the objective's proficiency requirements.
ATTITUDE	This cell describes the competency elements encapsulated in airmanship, Crew Resource Management (CRM), and threat and error management, such as: <ul style="list-style-type: none"> — situation awareness; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.
GENERAL	
In most sections of the flight there are competencies that apply to a group of manoeuvres, e.g. turns, or even to the whole section. 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 to 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 at the end of the group identify the group.	

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



2.3.6. SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE

In this section the candidate should be expected to:

- (a) conduct a safe and practical inspection of the aeroplane prior to flight, and be aware of the aircraft servicing operations that they are entitled to carry out;
- (b) proceed with the checks, at a practical pace, with reference to the aircraft checklist;
- (c) describe to the examiner visual checks, if requested. Pre-flight checks of the radio and navigation equipment should include all the equipment which the candidate proposes to use during the flight;
- (d) brief the examiner, 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 crew/passengers in the case of emergency;
- (e) instruct the examiner on the actions they should take in the event of an emergency. Passenger briefing cards are acceptable, but the examiner may ask questions;
- (f) 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.
- (g) take account of all factors that may affect a safe take-off and departure;
- (h) comply with any instructions given by ATC.

(EU) PART-FCL Commercial Pilot Licence (CPL)(A)	
SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
a)	Pre-flight, including: flight planning, documentation, mass-and-balance determination, weather brief, NOTAMS
OBJECTIVE	<p>To determine that the candidate is able to prepare a simulated public transport flight, including:</p> <ul style="list-style-type: none"> (a) flight planning; (b) documentation; (c) mass-and-balance determination; (d) weather brief; (e) NOTAMS.
SKILL	<p>To determine that the candidate demonstrates application of routine planning procedures, such as:</p> <ul style="list-style-type: none"> (a) preparation of operational flight plan as assigned by the examiner from the departure airport to a destination airport (including navigation logs and charts); (b) obtainment and interpretation of weather briefing and factoring conditions into the flight plan; (c) preparation of VFR navigation log (taking account of any NOTAMS); (d) establishment of weight and balance for a specific load condition; (e) calculation of all relevant performance data required for departure, en route, and destination; (f) calculation of fuel plan.



KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) pilot licence privileges and limitations; (b) operational information, including NOTAMs and AIP; (c) all performance factors for the class/type of aircraft (including mass and balance); (d) ensuring that all the required aircraft documentation is valid and available as applicable; (e) airworthiness and registration certificates; (f) Aircraft Flight Manual or other appropriate document; (g) relevant and available weather briefing materials; (h) classes of airspace.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — notes potential weather hazards and acts accordingly. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — demonstrates correct flight crew coordination (where applicable). <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — submits flight plan timely for the planned departure. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies possible threats and errors; — makes appropriate decisions based on NOTAMs, weather trends, etc.



SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
b)	Aircraft inspection and servicing
OBJECTIVE	To determine that the candidate is able to perform aircraft inspection and is aware of the serviceability requirements.
SKILL	<p>To determine that the candidate demonstrates use, interpretation and application of the appropriate documentation to:</p> <ul style="list-style-type: none"> (a) determine the airworthiness of the aircraft for the flight; (b) perform external aircraft inspection in accordance with the Flight Manual or other appropriate document and identify any deficiencies; (c) perform internal cabin and cockpit inspection in accordance with the Flight Manual or other appropriate document and identify any deficiencies; (d) determine if any deficiencies can be deferred or if rectification is required prior to flight.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge and understanding of relevant information including but not limited to:</p> <ul style="list-style-type: none"> (a) the Flight Manual or other appropriate document instructions on how to inspect the aircraft externally and internally; (b) all legally required documents to be carried on board the aircraft; (c) maintenance requirements and appropriate records applicable to the proposed flight or operation; (d) maintenance that may be performed by the pilot (if applicable); (e) time remaining before next service is required; (f) action to be taken if maintenance is required away from the aircraft base.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — notes potential hazards and acts accordingly. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes correct corrective action, when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
c)	Taxiing and take-off
OBJECTIVE	To determine that the candidate is able to taxi the aircraft and perform the take-off.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) taxi the aircraft safely taking account of ATC instructions, airport signs and markings; (b) perform all required pre-take-off checks (including visually scanning for other aircraft); (c) position the aircraft correctly for take-off taking into account any crosswind conditions; (d) apply the controls correctly to maintain longitudinal alignment on the centre line of the runway prior to initiating and during the take-off; (e) set the throttle(s) to take-off power with appropriate checks (e.g. verify the expected engine performance, monitor engine controls, settings and instruments during take-off to ensure that all predetermined parameters are maintained); (f) use the correct take-off technique by applying the recommended speeds for rotation, lift-off, and initial climb; (g) adjust the controls to attain the desired pitch attitude at the predetermined airspeed to achieve the desired performance.
KNOWLEDG	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) taxi procedures; (b) adequate knowledge of the pre-take-off (run-up) checks by stating the reason for checking the items outlined in the checklist and explaining how to detect possible malfunctions; (c) normal take-offs and climb configurations.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — notes potential airport, weather or other hazards and acts accordingly; — uses headings in poor visibility conditions to confirm the path; — maintains awareness of taxi speeds appropriate to the conditions and limitations. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC to ensure safe progress of flight. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — manages crew-ATC communication (as applicable). <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — observes sterile cockpit procedures (as applicable); — divides attention properly inside and outside the cockpit. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — reacts to the threats and errors associated with taxiing and take-off, and acts accordingly; — makes appropriate decisions based on NOTAMs, local weather trends, etc.



SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
d)	Performance considerations and trim
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) before the flight, calculate aircraft performance criteria and limitations applicable to runway and forecast weather conditions and make adjustments, if required, for actual conditions before take-off; (b) calculate aircraft trim settings.
SKILL	<p>To determine that the candidate demonstrates use, interpretation and application of the appropriate documentation to:</p> <ul style="list-style-type: none"> (a) demonstrate proficient use of (as appropriate to the aircraft) performance charts, tables, graphs, or other data relating to the performance and trim settings in all applicable phases of the flight; (b) present and explain a performance plan to the examiner for the assigned skill test flight.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the performance of the aircraft, its systems and components; (b) the aircraft weight and balance, and trim calculation.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of threats and errors associated with the performance, weight and balance, and trim calculations. <p>Effective communication:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation; <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — reacts to the threats and errors associated with performance and trim considerations, and acts accordingly; — makes appropriate decisions based on performance and trim plans, etc.



SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
e)	Aerodrome and traffic pattern operations
OBJECTIVE	<p>To determine that the candidate demonstrates adequate knowledge of and proficiency in:</p> <ul style="list-style-type: none"> (a) the use of charts or other published information as required; (b) airport ground operations; (c) traffic pattern operations.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) exhibit proficient use of airport charts, tables, graphs, or other data relating to the operation of aircraft; (b) explain the correct procedures for leaving or joining the traffic pattern at departure, en route and destination airports; (c) perform the required departure according to the applicable traffic pattern in operation.
KNOWLEDGE	<p>To determine that the candidate exhibits use, interpretation, and application of the appropriate documentation to:</p> <ul style="list-style-type: none"> (a) the applicable airport and traffic pattern operations.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of threats and errors associated with airport and traffic pattern operations. <p>Effective communication:</p> <ul style="list-style-type: none"> — establishes communication with ATC using proper phraseology; — interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — divides attention properly inside and outside the cockpit. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — makes appropriate decision to modify airfield arrival as necessary to fit into arrival sequence.



SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
f) Departure procedure, altimeter-setting, collision avoidance (lookout)	
OBJECTIVE	To determine that the candidate demonstrates adequate knowledge of and proficiency in: <ul style="list-style-type: none"> (a) airport departure procedures; (b) altimeter-setting procedures; (c) correct lookout/collision-avoidance techniques.
SKILL	To determine that the candidate is able to demonstrate: <ul style="list-style-type: none"> (a) proficient use of airport departure charts or other data relating to airport departure procedures; (b) the correct procedures for leaving or joining the traffic pattern at the departure airport; (c) correct altimeter-setting procedures; (d) techniques for avoiding collision/runway incursion; (e) techniques for lookout, use of navigation/taxiing/landing/strobe lights.
KNOWLEDGE	To determine that the candidate demonstrates knowledge related but not limited to: <ul style="list-style-type: none"> (a) airport departure procedures; (b) altimeter-setting procedures; (c) collision-avoidance techniques.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of threats and errors associated with airport departures; — awareness of threats and errors associated with incorrect altimeter settings; — awareness of obstacles, other traffic and the necessity to keep a vigilant lookout; — awareness of correct use of lights, taking account of daytime/night-time/weather conditions. <p>Effective communication:</p> <ul style="list-style-type: none"> — establishes communications with ATC using proper phraseology; — interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change; <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — divides attention properly inside and outside the cockpit; — maintains effective lookout. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — makes appropriate decisions to fit into the departure sequence.



SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
g)	ATC liaison — compliance, R/T procedures
OBJECTIVE	<p>To determine that the candidate:</p> <ul style="list-style-type: none"> (a) uses standard RTF procedures and phraseology; (b) demonstrates compliance with ATC instructions.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) set the appropriate communication and navigation frequencies and transponder codes in compliance with the ATC clearance; (b) establish communication with ATC using proper phraseology; (c) use standard phraseology when reading back clearances; (d) determine that it is possible to comply with the ATC clearance; (e) comply in a timely manner with all ATC clearances, instructions, and restrictions.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) standard ICAO phraseology; (b) pilot-controller responsibilities including tower, en route control, and clearances; (c) two-way communications failure procedures.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of threats and errors associated with airport departures. <p>Effective communication:</p> <ul style="list-style-type: none"> — establishes communication with ATC using proper phraseology; — interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — challenges unclear ATC instructions and requests clarification, verification, or change as applicable. <p>Effective workload management:</p> <ul style="list-style-type: none"> — divides attention properly inside and outside the cockpit; — maintains effective lookout; — takes care to read back ATC clearances correctly. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — insists on standard ICAO phraseology.



2.3.7. SECTION 2 — GENERAL AIRWORK

Throughout this section, the examiner should be responsible for navigation and ATC liaison, whereas the candidate should be responsible for lookout and collision avoidance (except when IMC is simulated).

The following items should be assessed in the visual and instrument subsections of Section 2.

Visual airwork: Control of the aeroplane by external visual reference, including:

- (a) straight and level flight at various airspeeds and configurations. Climbing and descending at various speeds and rates, which may include best angle (V_x) and best rate (V_y).
- (b) flight at critically low airspeeds and slow flight manoeuvres.
- (c) turns, including turns in landing configuration; level steep turns at not less than 45-degree bank; steep turns in a gliding configuration.
- (d) 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 candidate to initiate appropriate recovery action either to straight and level flight or into a climb.
- (e) recognition and recovery from stalls:
 - (1) normally the first stall should be a clean, fully developed stall entering from straight and level flight, with the throttle(s) closed;
 - (2) the second stall should be from an approach configuration (flap-setting and gear), and appropriate power. The stall should be initiated from a turn (level or descending with about a 20-degree angle of bank (AOB)) and the candidate should recover at the first symptom of the approaching stall;
 - (3) the third stall should be in a landing configuration with the appropriate power setting. The stall should be initiated from straight flight as if established on final approach to land (i.e. not climbing); the candidate must recover at the first symptom of the approaching stall.

Note: Stall recoveries should be made by first decreasing the AoA and subsequently applying the correct techniques to recover with the minimum loss of height, returning to a clean climb, wings level. Examiners should pay careful attention to the recovery techniques used by the candidate, and ensure that the demonstration of skill in these exercises is supplemented by the required knowledge and attitude competencies.

Instrument airwork: Control of the aeroplane by sole reference to instruments, including:

Full panel:

- (a) Level flight in the cruise configuration. Rate-1 level turns or bank angles up to 30 degrees. Climbing and descending turns at given rates and speeds.
- (b) The candidate should establish the aircraft's geographical position by use of radio navigation techniques. VOR, DME, or ADF may only be used to obtain the



information. The candidate should state what actions they would take to regain VMC.

Limited panel:

- (a) Flight reference by turn and slip/turn coordinator indicator, standby compass and performance instruments only.
- (b) Straight and level flight at given speeds.
- (c) Level turns onto given headings at Rate 1, using timed or compass turns.
- (d) Climb and descent at cruise speed in straight flight.
- (e) Recovery from unusual attitudes (recovery should be made to trimmed straight and level flight with minimum loss of height).



SECTION 2 — GENERAL AIRWORK	
a	Control of the aircraft by external visual reference, including straight and level flight, climb, decent, lookout
OBJECTIVE	<p>To determine that the candidate demonstrates control and trim of the aircraft and adequate lookout in VFR conditions during:</p> <ul style="list-style-type: none"> (a) straight and level flight (b) climbing and descending flight.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) maintain straight and level flight at various airspeeds; (b) maintain the aircraft in a trimmed condition at a constant altitude while changing airspeed; (c) climb the aircraft in a trimmed condition at a nominated airspeed; (d) correctly transition from climb to cruise flight at a nominated altitude and speed; (e) descend the aircraft in a trimmed condition at a nominated speed; (f) correctly transition from descending flight to cruise flight at a nominated altitude and airspeed; (g) maintain an adequate lookout throughout all manoeuvres.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) straight and level flight; (b) the effects of trim on aircraft speed; (c) the effects of weight, power, C of G, load factor and lift devices on aircraft attitude; (d) the Flight Manual or other appropriate document, procedures for cruise, climb and descending flight; (e) lookout techniques.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of the threats and errors associated with transitioning from climbing, cruise and descending flight; — awareness of the aircraft balance and corrections required. <p>Effective communication:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — divides attention properly inside and outside the cockpit; — maintains effective lookout. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — as applicable to a specific situation.



SECTION 2 — GENERAL AIRWORK	
b)	Flight at critically low airspeeds, including recognition of and recovery from incipient and full stalls
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to:</p> <p>(a) fly at critically low airspeeds, including recognition of and recovery from incipient and full stalls.</p> <p>Note 1: Examiners should brief candidates to recover from a fully stalled condition using the recommended techniques in the Flight Manual or other appropriate document. In general, stall recovery should be achieved by positively reducing the AoA and transitioning to a clean configuration climb at 'Vy' using power to minimise altitude loss. It is important that examiners observe the correct sequence of control inputs to achieve stall recovery.</p> <p>Note 2: Attempts to minimise altitude loss by trying to recover with power (particularly in MEP aircraft) instead of positively reducing the AoA first, show a poor understanding of stall aerodynamics and should not be acceptable as passing this competency.</p>
SKILL	<p>To determine that the candidate is able to:</p> <p>(a) safely handle the aircraft at very slow airspeeds;</p> <p>(b) recognise and recover from the incipient stall according to the appropriate aircraft procedures;</p> <p>(c) recognise and recover from the following stall scenarios according to the appropriate aircraft procedures:</p> <ol style="list-style-type: none"> (1) a clean, fully developed stall entering from straight and level flight, with the throttle(s) closed; (2) an approach configuration stall (intermediate approach flap-setting and gear down) and appropriate power, initiated from a turn (level or descending with about 20-degree AOB), recovered at the first symptom of the approaching stall; (3) a stall should be in the landing configuration and appropriate set power. The stall should be initiated from straight flight as if established on final approach to land (i.e. not climbing); the candidate must recover at the first symptom of the approaching stall. <p>Note: Stall recoveries should be made with the correct recovery technique, reducing the AoA as appropriate and subsequent use of power to minimise loss of altitude, returning to a clean climb, wings level, or as directed by the examiner.</p>
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <p>(a) slow flight and the 'back end of the drag curve';</p> <p>(b) characteristics of the aircraft wings and the cause(s) of a stall (AoA);</p> <p>(c) stall-recovery techniques;</p> <p>(d) the effectiveness of controls at the stall in various configurations;</p> <p>(e) effects of weight, power, C of G, load factor and lift devices on the indicated stall speed;</p> <p>(f) the Flight Manual or other appropriate document procedures for slow flight and stall recognition and recovery.</p>



ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none">— awareness of the symptoms that the aircraft is close to the stall during very slow flight and the effects of flying at the 'back end of the drag curve';— awareness through sensory perceptions that the aircraft is being flown at very slow speeds;— awareness of the aircraft balance and corrections required. <p>Effective communication:</p> <ul style="list-style-type: none">— as applicable to a specific situation. <p>Leadership and teamwork:</p> <ul style="list-style-type: none">— as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none">— divides attention properly inside and outside the cockpit;— maintains effective lookout. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none">— reacts correctly to symptoms of very low airspeed such as stall warnings, incipient stall, onset of V_{mca}, etc.
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SECTION 2 — GENERAL AIRWORK	
c)	Turns, including turns in landing configuration. Steep turns (45 degrees)
OBJECTIVE	<p>To determine that the candidate demonstrates:</p> <ul style="list-style-type: none"> (a) the ability to execute medium and steep-level turns (45 degrees) and turns in the landing configuration in VFR conditions; (b) the correct lookout technique before, during, and after the turns; (c) coordinated recovery from turns to straight and level flight on the specified heading or as appropriate without loss/gain of altitude.
SKILL	<p>To determine that the candidate is able to (for all configurations):</p> <ul style="list-style-type: none"> (a) select a suitable area and altitude to safely execute the turn(s); (b) demonstrate aircraft safety checks and a comprehensive lookout technique; (c) use the ailerons and rudder as appropriate to the aircraft type to initiate the turn and control balance, adverse yaw, and slipstream effects; (d) maintain a nominated safe speed throughout the turn with appropriate power settings; (e) continually monitor the attitude of the aircraft in pitch and bank (using visual references as appropriate); (f) maintain a coordinated turn throughout the entire manoeuvre; (g) roll out of the turn smoothly on to preselected heading(s) or visual reference; (h) compensate for the effects of wind.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the correct pitch attitude, power-setting and bank angle to complete a coordinated turn; (b) the load factors and forces on the aircraft in a turn; (c) the increase in stalling speed during a turn; (d) the correct use of all flight controls to coordinate a turn safely in all configurations; (e) the lookout and aircraft checks to be conducted before starting any turning manoeuvre.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of the symptoms that the aircraft is close to stall during steep turns; — awareness through sensory perceptions that the aircraft is uncoordinated while turning; — awareness of the aircraft balance and corrections required; — anticipation of control inputs required to roll out of a turn smoothly on the correct heading. <p>Effective communication:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation; <p>Effective workload management:</p> <ul style="list-style-type: none"> — divides attention properly inside and outside the cockpit; — maintains effective lookout. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — reacts correctly to symptoms of turning errors such as stall warnings, incipient stall, spiral dive, etc.



SECTION 2 — GENERAL AIRWORK	
d)	Flight at critically high airspeeds, including recognition of and recovery from spiral dives
OBJECTIVE	<p>To determine that the candidate demonstrates:</p> <ul style="list-style-type: none"> (a) flight at critically high airspeeds (approaching VNE); (b) recognition of, and recovery from, spiral dives; (c) recovery action without exceeding any aircraft limitations; (d) completion of all necessary checks and drills. <p>Note: These manoeuvres may be combined; the examiner may put the aircraft into a steep dive or a spiral dive with speed increasing rapidly, and hand control to the candidate to initiate appropriate recovery action either to straight and level flight or into a climb.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) select a suitable area and altitude to safely execute the manoeuvre; (b) demonstrate aircraft safety checks and a comprehensive lookout technique; (c) recognise that the aircraft is in a spiral dive and to initiate the correct recovery actions; (d) continually monitor the aircraft attitude in pitch and bank (using visual references as appropriate); (e) use the ailerons and rudder as appropriate to the aircraft type to recover from a spiral dive and control balance, adverse yaw, and slipstream effects; (f) avoid any indication of an approaching stall or exceed any structural or operating limitation during any part of the manoeuvre; (g) roll out of the turn smoothly and recover to level flight or a climb, as appropriate.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) aircraft structural and manoeuvring speed limits; (b) the difference between a spiral dive condition and a stall (spin) condition; (c) the adverse effects of 'pulling' in a spiral dive condition; (d) the correct recovery technique for a V_{ne} dive or a spiral dive manoeuvre.



ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of the threats and errors associated with high speed and with exceeding V_{ne}; — awareness of the threats and errors associated with a spiral dive; — anticipation of control inputs required to recover from a high speed or spiral dive condition; — awareness of the symptoms that the aircraft is close to V_{ne}; — awareness through sensory perceptions that the aircraft is uncoordinated while turning; — awareness of the aircraft balance and corrections required; — anticipation of control inputs required to roll out of a turn smoothly on the correct heading. <p>Effective communication:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — divides attention properly inside and outside the cockpit; — maintains effective lookout. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — reacts correctly to symptoms of turning errors such as stall warnings, incipient stall, spiral dive, etc.
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SECTION 2 — GENERAL AIRWORK	
e)	Flight by reference solely to instruments, including: (i) level flight, cruise configuration, control of heading, altitude and airspeed; (ii) climbing and descending turns with 10–30-degree bank; (iii) recoveries from unusual attitudes; (iv) limited panel instruments.
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to manually fly the aircraft solely by reference to instruments in normal and abnormal flight attitudes, including:</p> <ul style="list-style-type: none"> (a) level flight, cruise configuration, control of heading, altitude and airspeed; (b) climbing and descending turns with 10–30-degree bank; (c) recoveries from unusual attitudes, limited panel instruments, and turns; (d) manoeuvring the aircraft by sole reference to flight instruments as specified by the examiner; (e) use of appropriate technique of instrument scanning and cross-checking to maintain flight within the prescribed limits; (f) rate one level turns onto specified headings using limited panel instruments; (g) recovery on limited panel instruments from unusual attitudes with minimum height loss by applying the correct recovery techniques within the aircraft limitations in to return the aircraft to stabilised level flight; (h) completion of all necessary checks and drills and general cockpit management. <p>Note: Instrument flight manoeuvres may be combined at the discretion of the examiner. For the unusual attitudes, the examiner may put the aircraft into a steep dive or a spiral dive with speed increasing or a turning climb with speed decreasing and hand control to the candidate to initiate appropriate recovery action either to straight and level flight or into a climb, as appropriate. The examiner should assume responsibility for keeping a good lookout throughout these manoeuvres.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) control the aircraft in level flight solely by reference to instruments (including instrument failures); (b) turn the aircraft on to nominated headings while maintaining coordination, altitude and airspeed; (c) initiate and control the aircraft in climbing and descending (Rate 1) turns on to nominated headings; (d) recover the aircraft to level or climbing flight from an unusual attitude.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) instrument scanning techniques (including limited panel); (b) aircraft power and attitude required for a given performance.



ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of the threats and errors associated with high speed and with exceeding V_{ne}; — awareness of the threats and errors associated with a spiral dive; — anticipation of control inputs required to recover from a high speed or spiral dive condition; — awareness of the symptoms that the aircraft is close to V_{ne}; — awareness through sensory perceptions that the aircraft is uncoordinated while turning; — awareness of the aircraft balance and corrections required; — anticipation of control inputs required to roll out of a turn smoothly on the correct heading. <p>Effective communication:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — divides attention properly inside and outside the cockpit; — maintains effective lookout. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — reacts correctly to symptoms of turning errors such as stall warnings, incipient stall, spiral dive, etc.
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SECTION 2 — GENERAL AIRWORK	
f)	ATC liaison — Compliance, R/T procedures
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to:</p> <ul style="list-style-type: none"> (a) proficiently communicate with ATC using standard ICAO phraseology; (b) understand and follow or challenge ATC instructions, as appropriate. <p>Note: Examiners should point out in the briefing that during Section 2 the examiner should be responsible for most of the ATC liaison and navigation. However, this does not remove the candidate's responsibility for the management of the aircraft. The examiner should be responsible for lookout (including collision avoidance) when the candidate's view-limiting device is in place. The candidate should be responsible for lookout and for making allowance for weather conditions at all other times.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) proficiently communicate with ATC using standard ICAO phraseology; (b) follow or challenge ATC instructions, as appropriate;
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) standard ICAO phraseology; (b) R/T procedures; (c) ATC procedures appropriate to the route to be flown; (d) transponder-setting procedures.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness by maintaining a good listening watch. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective problem-solving and decision-making</p> <ul style="list-style-type: none"> — as applicable to specific situation.



2.3.8. SECTION 3 — EN ROUTE PROCEDURES

Section 3 is usually flown after departure to ensure efficient flow of the flight. During this section of the flight, the aeroplane is assumed to be on a passenger-carrying operation under Visual Flight Rules.

- (a) When the aeroplane has reached cruising altitude and is on heading for the turning point, the candidate should confirm to the examiner the heading, altitude, and ETA, advising thereafter on any changes (for example, '2 minutes late at my halfway point — the revised ETA is now...', etc.).
- (b) Corrections to heading or ETA should be calculated rather than based on track-crawling, impulse or inspiration. The candidate 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 fail in this section. The candidate should be expected to make changes to their heading and ETA in order to correct deviations from their plan.
- (c) Radio navigation aids may not be used during the first leg of the en route section in order to assess the candidate's ability to navigate by visual reference.

At some stage of the flight, the candidate should be instructed to carry out a diversion from the planned track to an alternative location. This is not an emergency procedure. A prominent location should be pinpointed on the candidate's chart. The candidate may be asked to commence the diversion at, or before, a planned turning point. The candidate should nominate their heading, altitude and ETA for the diversion. During the diversion, the candidate may supplement visual navigation techniques with the use of VOR, ADF, DME or RNAV/GPS to provide range and bearing information only. The examiner should not allow the use of any aid that would allow the candidate to track directly the diversion destination.

Demonstration of radio aid tracking in VMC should be required at some stage; the examiner should decide when to ask for this exercise so as to ensure efficient use of time and airspace. This exercise may be combined with another section. They should nominate the NDB or VOR to be used and the track to be intercepted.

GPS should, normally, not be used as a *primary* navigation aid. As a guide, the candidate may use GPS after they have demonstrated the basic navigation techniques required by the test profile. Throughout this section the candidate should be expected to demonstrate a satisfactory standard of airmanship, navigation, and aircraft control.



SECTION 3 — EN ROUTE PROCEDURES	
a)	Control of aircraft by external visual reference, including cruise configuration and range/endurance considerations
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to:</p> <ul style="list-style-type: none"> (a) conduct a simulated commercial air transport flight under VFR rules, including en route navigation, and fuel and performance planning; (b) configure airframe and engine(s) for cruise/endurance performance in accordance with the Flight Manual or other appropriate document; (c) control aircraft using visual attitude flying techniques; (d) adjust and monitor fuel consumption for range or endurance, as appropriate.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) operate the aircraft under VFR rules safely in all configurations; (b) conduct a simulated commercial air transport flight under VFR rules, including en route navigation, and fuel and performance planning; (c) configure airframe and engine(s) for cruise/endurance performance in accordance with the Flight Manual or other appropriate document; (d) control aircraft using visual attitude flying techniques; (e) adjust and monitor fuel consumption for range or endurance, as appropriate.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the safe operation of the aircraft in VFR operations.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of the threats and errors associated with VFR aircraft operations. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks; — has a calm and capable approach to VFR operations and manoeuvres. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — takes the correct corrective action, when appropriate.



SECTION 3 — EN ROUTE PROCEDURES	
b)	Orientation, map-reading
OBJECTIVE	To determine that the candidate demonstrates the ability to: (a) read a map; (b) orientate the aircraft.
SKILL	To determine that the candidate is able to: (a) choose a route; (b) identify and navigate in regulated or controlled airspace; (c) navigate in or manage danger, prohibited and restricted areas; (d) identify safety altitudes appropriate to the route to be flown; (e) calculate headings, diversions and times en route.
KNOWLEDGE	To determine that the candidate demonstrates knowledge related but not limited to: (a) regulated or controlled airspace; (b) danger, prohibited and restricted areas; (c) safety altitude; (d) magnetic headings, diversions and calculated times en route.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of the threats and errors associated with VFR aircraft navigation. <p>Effective communication:</p> <ul style="list-style-type: none"> — effectively communicates with ATC. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks for the safe conduct of the flight; — takes the correct corrective action, when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — as applicable to a specific situation.



SECTION 3 — EN ROUTE PROCEDURES	
c)	Altitude, speed, heading control, lookout
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to:</p> <ul style="list-style-type: none"> (a) maintain the planned or assigned altitude; (b) maintain the planned or assigned heading; (c) fly at a planned or assigned airspeed; (d) smoothly change airspeed to nominated airspeed(s); (e) maintain a good lookout throughout.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) maintain the planned or assigned altitude; (b) maintain the planned or assigned heading; (c) fly at a planned or assigned airspeed; (d) smoothly change airspeed to nominated airspeed(s); (e) maintain a good lookout throughout.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to techniques in order to maintain:</p> <ul style="list-style-type: none"> (a) altitude under VFR conditions; (b) a heading under VFR conditions; (c) changing airspeed under VFR conditions; (d) a good lookout.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the threats and errors associated with incorrect altitude, heading, speed or poor lookout technique. <p>Effective communication:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks for the safe and effective conduct of the flight; — takes the correct corrective action, when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — as applicable to a specific situation.



SECTION 3 — EN ROUTE PROCEDURES	
d)	Altimeter-setting. ATC liaison — compliance, R/T procedures
OBJECTIVE	<p>To determine that the candidate:</p> <ul style="list-style-type: none"> (a) uses standard RTF procedures and phraseology; (b) demonstrates compliance with ATC instructions; (c) sets and cross-checks altimeters to the correct pressure setting as applicable; (d) maintains a two-way RTF communication using correct phraseology throughout; (e) obtains ATC clearances and appropriate level of service; (f) complies with ATC clearances and instructions when required; (g) demonstrates sound airmanship and cockpit management.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) set the appropriate communication and navigation frequencies and transponder codes in compliance with the ATC clearance; (b) establish communication with ATC using proper phraseology; (c) use standard phraseology when reading back clearance; (d) determine that it is possible to comply with the ATC clearance; (e) comply, in a timely manner, with all ATC clearances, instructions, and restrictions.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) standard ICAO phraseology; (b) pilot-controller responsibilities including tower, en route control, and clearances; (c) two-way communications failure procedures.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — establishes communication with ATC on the correct frequencies and at the appropriate times. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates effectively with ATC; — takes care to read back ATC clearance correctly. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — insists on standard ICAO phraseology. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — challenges unclear ATC instructions and requests clarification, verification, or change as applicable.



SECTION 3 — EN ROUTE PROCEDURES	
e)	Monitoring of flight progress, flight log, fuel usage, assessment of track error and re-establishment of correct tracking
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to read a map and orientate the aircraft taking account of:</p> <ul style="list-style-type: none"> (a) all the elements of VFR planning for the route prescribed; (b) the choice of route and navigation log (PLOG); (c) the controlled airspace and of danger, prohibited and restricted areas; (d) the safety altitude; (e) magnetic headings, calculation of diversion headings and times en route (calculation of ground speed); (f) making appropriate adjustments to maintain, regain or correct back to track; (g) achieving destinations or turning points within 3 minutes of ETA or revised ETA; (h) fuel requirements and fuel plan. <p>Note: Candidates should be expected to maintain a navigation log and radio log by recording all pertinent information such that the whole route may be reconstructed if necessary after flight. Candidates should be informed in the briefing that the examiner should also maintain a navigation and radio log of the flight.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) choose a route and maintain a navigation log; (b) identify and navigate in controlled airspace and in danger, prohibited and restricted areas; (c) identify safety altitudes appropriate to the route to be flown; (d) calculate headings, diversions and times en route.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) regulated or controlled airspace; (b) danger, prohibited and restricted areas; (c) safety altitude; (d) magnetic headings, diversions and calculated times en route.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — awareness of the threats and errors associated with VFR aircraft navigation. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 3 — EN ROUTE PROCEDURES	
f)	Observation of weather conditions, assessment of trends, diversion planning
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to:</p> <ul style="list-style-type: none"> (a) understand and apply Visual Flight Rules (VFR); (b) make a decision to continue a flight or divert it based on an assessment of actual and forecast weather conditions; (c) plan in order to avoid deteriorating weather and maintain VMC or consider discontinuing navigation route if unable to maintain VMC; (d) calculate heading, ground speed, ETA and fuel required during any unscheduled diversion; (e) take prompt, appropriate action to continue the flight safely following inadvertent entry into IMC.
SKILL	<p>To determine that the candidate demonstrates the ability to:</p> <ul style="list-style-type: none"> (a) monitor the weather conditions effecting the planned flight using available and appropriate facilities; (b) interpret en route weather information; (c) make decisions with regard to continuing, diverting or returning to destination as appropriate according to latest actual and forecast weather.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) en route weather information services; (b) weather information decodes and charts as appropriate; (c) actions taken are appropriate to the conditions in (a) and (b) above.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the errors associated with weather trends affecting VFR aircraft navigation; — is aware of the en route diversion airports available to the planned flight. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 3 — EN ROUTE PROCEDURES	
g)	Tracking, positioning (NDB or VOR), identification of facilities (instrument flight). Implementation of diversion plan to alternate aerodrome (visual flight)
OBJECTIVE	<p>To determine that the candidate demonstrates the ability to:</p> <ul style="list-style-type: none"> (a) select and identify appropriate radio and navigation aids as required or nominated by the examiner; (b) intercept and maintain given tracks or radials using the navigation aids nominated (under VFR); (c) navigate by means of calculated headings, ground speed, and time; (d) make a decision to continue a flight or to divert it based on an assessment of actual and forecast weather conditions or other factors; (e) execute a diversion under VFR rules to an alternate airport; (f) locate and record the aircraft position by using radio navigation equipment when required by the examiner (under simulated instrument flight).
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) identify an NDB or VOR; (b) track to an NDB or VOR using the correct technique; (c) make a decision to continue a flight or to divert it based on an assessment of actual and forecast weather conditions or other factors; (d) execute a diversion under VFR rules to an alternate aerodrome.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) identifying an NDB or VOR; (b) tracking to an NDB or VOR using the correct technique; (c) diverting the flight based on an assessment of actual and forecast weather conditions or other factors; (d) executing a diversion under VFR rules to an alternate airport.
ATTITUDE	<p>Situation awareness of:</p> <ul style="list-style-type: none"> — the en route diversion airports available to the planned flight; — the threats and errors associated with weather trends effecting VFR aircraft navigation; — the effects of wind and other factors on VORs and NDBs; — the available VORs and NDBs and their proper identification. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



2.3.9. SECTION 4 — APPROACH AND LANDING PROCEDURES

This section may be flown at the base airport or at an alternate airport nominated by the examiner before the flight. Candidates should be expected to carry out a safe and expeditious joining of the circuit. This involves entry at the most convenient point in the circuit with the aeroplane in the appropriate configuration and at the correct speed. Candidates should be expected to carry out a number of approaches and landings (usually touch-and-go landings), involving the following:

- (a) normal landing;
- (b) crosswind landing (when practical);
- (c) go-around from a low height/altitude;
- (d) 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);
- (e) approach and landing without the use of power (glide approach). The examiner may limit the amount of runway available;
- (f) approach and landing without the use of flaps (flapless);
- (g) approach and landing without the use of power (glide approach). The examiner may limit the amount of runway available;
- (h) Post-flight action. The candidate should be responsible for taxiing and parking, after landing and shutdown checks, and for the completion of the aeroplane documentation.

Throughout this Section, the candidate is also responsible for ATC liaison, altimetry, and lookout.



SECTION 4 — APPROACH AND LANDING PROCEDURES	
a)	Arrival procedures, altimeter-setting, checks, lookout
OBJECTIVE	<p>To determine that the candidate:</p> <ul style="list-style-type: none"> (a) carries out the appropriate checks and drills; (b) sets altimeters and cross-checks in accordance with checklists, or as required; (c) complies with published arrival procedure or clearance; (d) maintains adequate lookout and collision avoidance.
SKILL	<p>To determine that the candidate is able to maintain the appropriate:</p> <ul style="list-style-type: none"> (a) airspeed; (b) altitude; (c) heading(s); (d) lookout and collision-avoidance techniques.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the current and appropriate navigation publications for the proposed arrival routing; (b) accomplishing the aircraft briefing/checklist items appropriate to the arrival; (c) performing correct altimetry procedures in accordance with the regulations, operational procedures and ATC requirements; (d) completing the appropriate checklist.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the threats and errors associated with arrival procedures, altimeter settings, checks, and lookout. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 4 — APPROACH AND LANDING PROCEDURES	
b)	ATC liaison — Compliance, R/T procedures
OBJECTIVE	<p>To determine that the candidate:</p> <ul style="list-style-type: none"> (a) uses standard RTF procedures and phraseology; (b) demonstrates compliance with ATC instructions; (c) adjusts circuit pattern/speed to maintain spacing with other traffic in the landing pattern.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) set the appropriate communication and navigation frequencies and transponder codes in compliance with the ATC clearance; (b) establish communication with ATC using proper phraseology; (c) use standard phraseology when reading back clearance; (d) determine that it is possible to comply with the ATC clearance; (e) comply, in a timely manner, with all ATC clearances, instructions, and restrictions.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) standard ICAO phraseology; (b) pilot-controller responsibilities including tower, en route control, and clearances; (c) two-way communications failure procedures.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — establishing communication with ATC on the correct frequencies and at the appropriate times; — takes care to read back ATC clearance correctly; — challenges unclear ATC instructions and requests clarification, verification, or change as applicable; — insists on standard ICAO phraseology. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate; <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 4 — APPROACH AND LANDING PROCEDURES	
c)	Go-around action from low height
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) execute a timely decision to go around when instructed by ATC or when instructed by the examiner (this may be at any height or time prior to touchdown); (b) apply appropriate power and control aircraft attitude to initiate a safe climb maintaining balance and heading; (c) adjust configuration and speed to achieve a positive climb at V_y or V_x as appropriate; (d) maintain go-around power until a safe manoeuvring altitude is reached and then adjust to a normal climb configuration and speed; (e) complete all necessary checks and drills.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) apply the appropriate power setting for the flight condition and to establish a pitch attitude necessary to obtain the desired performance; (b) retract the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and to establish a positive rate of climb and the appropriate airspeed; (c) trim the aircraft as necessary, and to maintain the proper ground track during the rejected landing procedure; (d) accomplish the appropriate checklist items in a timely manner in accordance with approved procedures.
KNOWLEDGE	<p>To determine that the candidate demonstrates adequate knowledge of:</p> <ul style="list-style-type: none"> (a) normal procedures for a go-around; (b) normal speeds and profiles for a go-around.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — makes a timely decision to reject the landing for actual or simulated circumstances; — makes appropriate notification when safety of flight is not an issue. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 4 — APPROACH AND LANDING PROCEDURES	
d)	Normal landing, crosswind landing (if suitable conditions)
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) consider weather and wind conditions, landing surface and obstructions; (b) plan and follow the circuit pattern and orientation with the landing area; (c) configure the aircraft correctly for a normal approach and landing, as appropriate to the specific runway; (d) accurately control the aircraft during approach and landing using the correct techniques appropriate to the specific aircraft; (e) configure the aircraft correctly and appropriately for a particular crosswind condition; (f) accurately control the aircraft during approach and landing using the correct crosswind techniques; (g) select and achieve the appropriate touchdown area at the recommended speed; (h) adjust descent and round out (flare) to achieve a safe landing with little or no float with appropriate drift and crosswind correction; (i) maintain directional control after touchdown and apply brakes for a safe roll-out; (j) complete all necessary checks and drills.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly for a normal approach and landing, as appropriate to the specific runway; (b) accurately control the aircraft during approach and landing using the correct techniques appropriate to the specific aircraft; (c) configure the aircraft correctly and appropriately for a specific crosswind condition; (d) accurately control the aircraft during approach and landing using the correct crosswind techniques.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the correct approach configuration for a normal landing; (b) the correct technique for a normal landing; (c) the correct approach configuration for a crosswind landing; (d) the correct technique for a crosswind landing.



ATTITUDE	<p>Situation awareness of:</p> <ul style="list-style-type: none"> — the correct approach profile for a normal landing; — the correct approach profile for a crosswind landing; — the threats and errors associated with a normal landing (notes potential hazards and acts accordingly); — the threats and errors associated with a crosswind landing. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start; <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.
SECTION 4 — APPROACH AND LANDING PROCEDURES	
e)	Short-field landing
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly for an approach and soft/short-field landing, as appropriate to the specific runway over a simulated obstacle as recommended in the Flight Manual or other appropriate document; (b) accurately control the aircraft during approach and landing using the correct techniques and approach speeds appropriate to the specific aircraft; (c) control the aircraft using techniques appropriate to a specific runway condition. <p>Note: Examiners must clearly brief candidates on the simulated surface conditions and the use of brakes prior to attempting this manoeuvre.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly for an approach and soft-field landing, as appropriate to the specific runway; (b) accurately control the aircraft during approach and landing using the correct techniques appropriate to the specific aircraft; (c) control the aircraft using techniques appropriate to a specific runway condition.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the correct approach configuration for a soft-field landing; (b) the correct technique for a soft-field landing.



ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none">— of the threats and errors associated with a soft-field landing;— of the correct approach profile for a soft-field landing;— notes potential hazards and acts accordingly. <p>Effective communication:</p> <ul style="list-style-type: none">— communicates with ATC as necessary. <p>Leadership and teamwork:</p> <ul style="list-style-type: none">— as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none">— prioritises tasks to produce a safe and effective plan for the conduct of the flight;— takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none">— identifies aircraft defects and acts accordingly.
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SECTION 4 — APPROACH AND LANDING PROCEDURES	
f) Approach and landing with idle power (single-engine aircraft only)	
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly for an approach and landing with idle power; (b) accurately control the aircraft during approach and landing using the correct techniques appropriate to the specific aircraft; (c) safely land the aircraft using techniques appropriate to a specific runway condition. <p>Note: This item is an assessment of the candidate's judgement and skill to glide the aircraft from an agreed point in the circuit pattern. Examiners must brief the candidate on the ground and ensure that the briefed manoeuvre is achievable in the air. Any substantial change (change of wind direction, new ATC instructions, noise sensitive areas, etc.) should be taken into consideration.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly for an approach and landing with idle power from a position in the circuit pattern nominated by the examiner; (b) accurately control the aircraft during approach using the correct profiles and speeds appropriate to the specific aircraft; (c) select flaps and gear as required to maintain the correct glide-approach profile; (d) safely land the aircraft at the nominated or acceptable touchdown point using techniques appropriate to a specific runway condition (e.g. wet, short, soft, crosswind, etc.).
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the correct approach configuration for an approach and landing with idle power; (b) the correct technique for a power-off landing.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — of the correct approach profile for a power-off landing; — of the threats and errors associated with a power-off landing including the temptation to 'stretch the glide'; — of the need to regularly warm the engine and be prepared to go-around if necessary; — notes potential hazards and acts accordingly. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC as necessary. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate; <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 4 — APPROACH AND LANDING PROCEDURES	
g)	Landing without the use of flaps
OBJECTIVE	<p>To determine that the candidate is able to:</p> <p>(a) configure the aircraft correctly for an approach and landing without the use of flaps.</p>
SKILL	<p>To determine that the candidate is able to:</p> <p>(a) configure the aircraft correctly for an approach and landing without the use of flaps;</p> <p>(b) accurately control the aircraft during approach and landing using the correct techniques and speeds appropriate to the specific aircraft;</p> <p>(c) safely land the aircraft using correct flapless techniques appropriate to the aircraft and to the specific runway and wind conditions.</p>
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <p>(a) the correct approach configuration for an approach and landing without the use of flaps;</p> <p>(b) the correct technique for a flapless landing.</p>
ATTITUDE	<p>Situation awareness of:</p> <ul style="list-style-type: none"> the correct approach profile for a flapless landing at a specific airport; the threats and errors associated with a flapless landing. <p>Effective communication:</p> <ul style="list-style-type: none"> communicates with ATC and ground staff as necessary. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> prioritises tasks to produce a safe and effective plan for the conduct of the flight; takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> identifies aircraft defects and acts accordingly.



SECTION 4 — APPROACH AND LANDING PROCEDURES	
h)	Post-flight actions
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly in accordance with the post-landing checklist; (b) configure the aircraft correctly in accordance with the post-landing and/or shutdown checklist;
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly in accordance with the post-landing checklist; (b) configure the aircraft correctly in accordance with the post-landing and/or shutdown checklist; (c) complete all post-landing checks and drills; (d) return aircraft to parking area and complete engine shutdown; (e) secure aircraft and complete documentation.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the correct post-flight actions for the specific aircraft.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the threats and errors associated with incorrect or omitted post-flight actions. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff as necessary. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate; <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



2.3.10. SECTION 5 — ABNORMAL AND EMERGENCY PROCEDURES

The items of this Section may be combined with Sections 1 through 4:

The examiner should simulate an abnormal or emergency situation; the candidate is expected to carry out the appropriate emergency actions.

- (a) If drills involve the operation of fuel cocks, fuel shut-off valves, mixture controls and any critical engine control, operations should be simulated by 'touch actions' only.
- (b) Emergency radio calls should be made aloud but not transmitted.
- (c) Candidates should not assume that any simulated emergency is complete until told so by the examiner.

SECTION 5 — ABNORMAL AND EMERGENCY PROCEDURES	
THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 4	
a)	Simulated engine failure after take-off (at a safe altitude), fire drill
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) control the aircraft in accordance with the Flight Manual or other appropriate document with a simulated engine failure after take-off. <p>Note: Examiners must remember that simulated engine failures after take-off can be a challenging exercise for candidates undergoing a test or check. Although unlikely, it is possible that a real engine failure could occur during a test or check. Care must be taken in the briefing to fully explain the way an examiner should announce an engine failure and discuss the expected actions and recovery heights. Engine failures should always be simulated by closing a throttle (never by shutting off fuel or ignition switches). Examiners are responsible to ensure that all simulated emergencies are conducted safely.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) control the aircraft in accordance with the Flight Manual or other appropriate document with a simulated engine failure after take-off; (b) configure the aircraft correctly for a forced landing; (c) control the aircraft in a properly trimmed condition and select the most appropriate landing site; (d) carry out a fire drill if appropriate.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) engine failure procedures and techniques appropriate to the aircraft; (b) fire drills appropriate to the aircraft type or class.



ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none">— of threats and errors associated with an engine failure after take-off. <p>Effective communication:</p> <ul style="list-style-type: none">— communicates with ATC and ground staff as necessary. <p>Leadership and teamwork:</p> <ul style="list-style-type: none">— as applicable to a specific situation: <p>Effective workload management:</p> <ul style="list-style-type: none">— prioritises tasks to produce a safe and effective plan for the conduct of the flight;— takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none">— identifies aircraft defects and acts accordingly.
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SECTION 5 — ABNORMAL AND EMERGENCY PROCEDURES	
THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 4	
b)	Equipment malfunctions including alternative landing gear extension, and electrical and brake failure
OBJECTIVE	<p>To determine that the candidate:</p> <ul style="list-style-type: none"> (a) demonstrates knowledge of the systems and equipment malfunctions appropriate to the aircraft provided for the flight test; (b) can deal with an equipment or system malfunction using decision-making at commercial pilot level, and the Flight Manual or other appropriate document and any appropriate aircraft checklists; (c) executes abnormal or emergency drills; (d) plans and executes further actions to ensure safe recovery of aircraft, passengers, and crew.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) deal with an equipment or system malfunction using decision-making at commercial pilot level, and the Flight Manual or other appropriate document and any appropriate aircraft checklists.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the system and equipment malfunctions appropriate to the aircraft provided for the flight test.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the threats and errors associated with equipment or system malfunctions; — is aware of the alternative systems and procedures for dealing with equipment or system failures and any associated limitations. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff to ensure timely start. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 5 — ABNORMAL AND EMERGENCY PROCEDURES**THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 4**

c)	Forced landing (simulated)
OBJECTIVE	<p>To determine that the candidate is able to:</p> <p>(a) demonstrate a forced landing with a simulated engine failure to a predetermined height above the ground as determined by the examiner.</p> <p>Note 1: No simulated engine failure should be given by the examiner in an aircraft when an actual touchdown could not be safely completed should it become necessary.</p> <p>Note 2: Examiners should never configure an aircraft's systems (particularly fuel systems) in such a way that a real emergency may result.</p>
SKILL	<p>To determine that the candidate is able to:</p> <p>(a) deal with an equipment or system malfunction using decision-making at commercial pilot level, and the Flight Manual or other appropriate document and any appropriate aircraft checklists;</p> <p>(b) maintain positive control throughout the manoeuvre;</p> <p>(c) establish and maintain the recommended best glide airspeed and configuration;</p> <p>(d) select a suitable airport or landing area, which is within the performance capability of the aircraft;</p> <p>(e) establish a proper flight circuit to the selected airport or landing area, taking into account altitude, wind, terrain, obstructions, and other pertinent operational factors;</p> <p>(f) follow the emergency checklist items appropriate to the aircraft;</p> <p>(g) use configuration devices such as landing gear and flaps in a manner recommended by the manufacturer;</p> <p>(h) complete the appropriate checklist.</p>
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <p>(a) the flight characteristics approach and forced landing procedures, and related procedures to use in the event of an engine failure as appropriate to the aircraft.</p>
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the threats and errors associated with a forced landing; — is aware of the alternative systems and procedures for dealing with equipment or system failures and any associated limitations. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff as necessary. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft defects and acts accordingly.



SECTION 5 — ABNORMAL AND EMERGENCY PROCEDURES	
THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 4	
d)	ATC liaison — Compliance, R/T procedures
OBJECTIVE	To determine that the candidate is able to: (a) liaise with ATC and comply with R/T procedures.
SKILL	To determine that the candidate is able to: (a) inform ATC of an abnormal flight condition and request service as applicable; (b) comply with ATC procedures and instructions; (c) set the appropriate communication and navigation frequencies and transponder codes in compliance with the ATC clearance; (d) uses standard phraseology when reading back clearance; (e) comply or query, in a timely manner, all ATC clearances, instructions, and restrictions.
KNOWLEDGE	To determine that the candidate demonstrates knowledge related but not limited to: (a) standard ICAO phraseology; (b) ATC emergency procedures.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — notes potential hazards and acts accordingly. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff as necessary to ensure the safe conduct of the flight; — takes care to read back ATC clearance correctly. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — challenges unclear ATC instructions and requests clarification, verification, or change as applicable; — insists on standard ICAO phraseology.



SECTION 5 — ABNORMAL AND EMERGENCY PROCEDURES**THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 4**

e)	Oral questions
OBJECTIVE	<p>To determine that the candidate has:</p> <p>(a) the standard knowledge of abnormal or emergency procedures required for CPL.</p> <p>Note: Examiners must be proficient in asking questions which are fair, relevant, clear, and precise. Questions should be carefully worded and not ambiguous. The prepared questions should be of practical nature, based upon the aircraft to be used and the objective(s) of the test. Familiar terms and words should be used to ensure that the candidate understands the question. Questions should be designed to allow the candidate to demonstrate their level of subject knowledge. Examiners should avoid closed questions that only require a 'YES'/'NO' answer.</p> <p>In order to correctly assess a candidate's level of knowledge, examiners should avoid leading the candidate to the correct answer.</p>



2.3.11. SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS

The items of this Section may be combined with Sections 1 through 4:

- (a) The examiner should simulate an abnormal or emergency situation; the candidate is expected to carry out the appropriate emergency actions.
- (b) If drills involve the operation of fuel cocks, fuel shut-off valves, mixture controls and any critical engine control, operations should be simulated by 'touch actions' only.
- (c) Emergency radio calls should be made aloud but not transmitted.
- (d) Candidates should not assume that any simulated emergency is complete until told so by the examiner.

SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS	
THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 5	
a)	Simulated engine failure during take-off (at a safe altitude unless carried out in an FFS)
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) maintain directional control following simulated engine failure; (b) maintain the correct speed, configuration and trim for optimum performance. <p>Note: When conducted in the aircraft, the examiner should simulate an engine failure by covering the throttle quadrant and retarding one throttle. The cover may be removed when the candidate indicates which engine is failed. The examiner may set the appropriate zero thrust setting when the candidate conducts the appropriate touch drill.</p>
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) maintain control following engine failure; (b) correctly identify the failed engine, to confirm the failed engine, and to complete the appropriate checks and drills; (c) reduce drag, and verify the inoperative engine; (d) maintain the correct speed, configuration and trim for optimum performance; (e) secure the inoperative engine, if appropriate; (f) simulate feathering the propeller of the inoperative engine, if appropriate; (g) establish VYSE; if obstructions are present, to establish VXSE or VMC + 10, whichever is greater, until obstructions are cleared, and then to transition to VYSE; (h) bank toward the operating engine up to 5 degrees as required for best performance, trim the aircraft and maintain control; (i) monitor the operating engine and make adjustments as necessary; (j) carry out the recommended emergency procedure.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) engine failure procedures; (b) the effects of an engine failure on aircraft performance.



ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the threats and errors associated with an engine failure during take-off; — is aware of the performance limitations of the category of aircraft used for the skill test; — is aware of the Vmca limitations applicable to the aircraft used for the skill test. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff as required. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — decision-making and management skills required to ensure the best possible outcome of an engine failure during take-off; — makes a decision about landing at the nearest suitable airport.
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SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS	
THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 5	
b)	Asymmetric approach and go-around
OBJECTIVE	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly for an approach and landing with one engine inoperative; (b) promptly execute a go-around when instructed by the examiner using the correct techniques and go-around profile.
SKILL	<p>To determine that the candidate is able to:</p> <ul style="list-style-type: none"> (a) configure the aircraft correctly for an approach and landing without the use of flaps; (b) accurately control the aircraft during approach and landing using the correct techniques appropriate to the specific aircraft; (c) safely land the aircraft using techniques which are appropriate for a specific runway condition.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) the correct approach configuration for an approach and landing with an inoperative engine; (b) the correct technique for a one-engine-inoperative landing.
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the threats and errors associated with a one-engine-inoperative landing. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff as necessary. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — identifies aircraft system defects and acts accordingly.



SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS**THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 4**

c)	Asymmetric approach and full-stop landing
OBJECTIVE	<p>To determine that the candidate is able to:</p> <p>(a) fly a visual circuit with asymmetric power to a full-stop landing.</p> <p>Note: Examiners must remember to fully brief this item of the test during the briefing. Examiners should make an assessment of the final approach and should initiate a go-around if it becomes apparent for any reason that a safe landing is in doubt.</p>
SKILL	<p>To determine that the candidate is able to:</p> <p>(a) configure the aircraft correctly for an approach and landing in a simulated asymmetric condition;</p> <p>(b) accurately control the aircraft during a simulated engine-inoperative approach and landing using the correct techniques appropriate to the aircraft used for the test;</p> <p>(c) safely land the aircraft using techniques which are appropriate for the specific runway condition.</p>
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge related but not limited to:</p> <p>(a) the correct approach configuration for an approach and landing with an inoperative engine;</p> <p>(b) the correct technique for a one-engine-inoperative landing.</p>
ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none"> — is aware of the correct approach profile for a one-engine-inoperative approach and landing; — is aware of the threats and errors associated with a one-engine-inoperative landing. <p>Effective communication:</p> <ul style="list-style-type: none"> — communicates with ATC and ground staff as necessary to ensure the safe conduct of the flight; — takes care to read back ATC clearance correctly. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> — as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none"> — challenges unclear ATC instructions and requests clarification, verification, or change as applicable.



SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS**THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 4****d) Engine shutdown and restart****OBJECTIVE**

The examiner should check that this item was completed satisfactorily during the ME class training.
Handling characteristics, restart procedures, etc., may be discussed.

SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS**THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 5****e) ATC liaison — compliance, R/T procedures****OBJECTIVE**

To determine that the candidate is able to:
(a) liaise with ATC and comply with R/T procedures.

SKILL

To determine that the candidate is able to:
(a) inform ATC of an abnormal flight condition and request service as applicable;
(b) comply with ATC procedures and instructions;
(c) set the appropriate communication and navigation frequencies and transponder codes in compliance with the ATC clearance;
(d) use standard phraseology when reading back clearance;
(e) comply or query, in a timely manner, all ATC clearances, instructions, and restrictions.

KNOWLEDGE

To determine that the candidate demonstrates knowledge related but not limited to:
(a) standard ICAO phraseology;
(b) ATC emergency procedures.



ATTITUDE	<p>Situation awareness:</p> <ul style="list-style-type: none">— notes potential hazards and acts accordingly. <p>Effective communication:</p> <ul style="list-style-type: none">— communicates with ATC and ground staff as necessary to ensure the safe conduct of the flight;— takes care to read back ATC clearance correctly. <p>Leadership and teamwork:</p> <ul style="list-style-type: none">— as applicable to a specific situation. <p>Effective workload management:</p> <ul style="list-style-type: none">— prioritises tasks to produce a safe and effective plan for the conduct of the flight;— takes the correct corrective action when appropriate. <p>Effective problem-solving and decision-making:</p> <ul style="list-style-type: none">— challenges unclear ATC instructions and requests clarification, verification, or change as applicable;— insists on standard ICAO phraseology.
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SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS**THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 5**

f)	As determined by the FE — any relevant items of the class or type rating skill test to include, if applicable: <ul style="list-style-type: none"> (i) aircraft systems, including handling of autopilot; (ii) operation of the pressurisation system; (iii) use of the de-icing and anti-icing system.
OBJECTIVE	To determine that the candidate is proficient in: <ul style="list-style-type: none"> (a) aircraft systems, including handling of autopilot; (b) the operation of pressurisation systems; (c) the use of the de-icing and anti-icing system.
SKILL	To determine that the candidate is able to demonstrate: <ul style="list-style-type: none"> (a) use of aircraft systems, including handling of autopilot during simulated asymmetric flight; (b) operation of the pressurisation system as applicable; (c) use of the de-icing and anti-icing system as applicable.
KNOWLEDGE	To determine that the candidate demonstrates knowledge related to: <ul style="list-style-type: none"> (a) the aircraft systems, including handling of autopilot in asymmetric situations; (b) the operation of the pressurisation system as applicable; (c) the use of the de-icing and anti-icing system as applicable.
ATTITUDE	Situation awareness: <ul style="list-style-type: none"> — notes potential hazards and acts accordingly. Effective communication: <ul style="list-style-type: none"> — as applicable to a specific situation. Leadership and teamwork: <ul style="list-style-type: none"> — as applicable to a specific situation. Effective workload management: <ul style="list-style-type: none"> — prioritises tasks to produce a safe and effective plan for the conduct of the flight; — takes the correct corrective action when appropriate. Effective problem-solving and decision-making: <ul style="list-style-type: none"> — as applicable to a specific situation.



SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS**THIS SECTION MAY BE COMBINED WITH SECTIONS 1 THROUGH 5**

g)	Oral questions
OBJECTIVE	As applicable to a specific situation.

2.3.12. CPL(A) SKILL TEST REPORT FORM

Note 1: Items in Section 2(c) and (e)(iv), and the whole of Sections 5 and 6 may be performed in an FNPT II or an FFS.

Note 2: Use of the aeroplane checklists, airmanship, control of the aeroplane by external visual reference, anti-icing/de-icing procedures and principles of threat and error management apply in all sections.

SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE

a)	Pre-flight, including: flight planning, documentation, mass-and-balance determination, weather brief, NOTAMs
b)	Aeroplane inspection and servicing
c)	Taxiing and take-off
d)	Performance considerations and trim
e)	Aerodrome and traffic pattern operations
f)	Departure procedure, altimeter-setting, collision avoidance (lookout)
g)	ATC liaison — Compliance, R/T procedures

SECTION 2 — GENERAL AIRWORK

a)	Control of the aeroplane by external visual reference, including straight and level, climb, descent, lookout
b)	Flight at critically low airspeeds, including recognition of and recovery from incipient and full stalls
c)	Turns, including turns in landing configuration. Steep turns (45 degrees)



d)	Flight at critically high airspeeds, including recognition of and recovery from spiral dives
e)	Flight by reference solely to instruments, including: <ul style="list-style-type: none"> (i) level flight, cruise configuration, control of heading, altitude, and airspeed (ii) climbing and descending turns with 10–30-degree angle of bank (iii) recoveries from unusual attitudes (iv) limited panel instruments
f)	ATC liaison — Compliance, R/T procedures

SECTION 3 — EN ROUTE PROCEDURES

a)	Control of aircraft by external visual reference, including cruise configuration Range/endurance considerations
b)	Orientation, map-reading
c)	Altitude, speed, heading control, lookout
d)	Altimeter-setting. ATC liaison — compliance, R/T procedures
e)	Monitoring of flight progress, flight log, fuel usage, assessment of track error and re-establishment of correct tracking
f)	Observation of weather conditions, assessment of trends, diversion planning
g)	Tracking, positioning (NDB or VOR), identification of facilities (instrument flight) Implementation of diversion plan to alternate aerodrome (visual flight)

SECTION 4 — APPROACH AND LANDING PROCEDURES

a)	Arrival procedures, altimeter-setting, checks, lookout
b)	ATC liaison — Compliance, R/T procedures
c)	Go-around action from low height
d)	Normal landing, crosswind landing (if suitable conditions)
e)	Short-field landing
f)	Approach and landing with idle power (single-engine aircraft only)
g)	Landing without the use of flaps
h)	Post-flight actions



SECTION 5 — ABNORMAL AND EMERGENCY PROCEDURES

This section may be combined with Sections 1 through 4

a)	Simulated engine failure after take-off (at a safe altitude), fire drill
b)	Equipment malfunctions, including alternative landing gear extension, and electrical and brake failure
c)	Forced landing (simulated)
d)	ATC liaison — Compliance, R/T procedures
e)	Oral questions

SECTION 6 — SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS OR TYPE ITEMS

This section may be combined with Sections 1 through 5

a)	Simulated engine failure during take-off (at a safe altitude unless carried out in an FFS)
b)	Asymmetric approach and go-around
c)	Asymmetric approach and full-stop landing
d)	Engine shutdown and restart
e)	ATC liaison — Compliance, R/T procedures, airmanship
f)	As determined by the FE — any relevant items of the class or type rating skill test to include, if applicable: <ul style="list-style-type: none"> (i) aircraft systems, including handling of autopilot; (ii) operation of the pressurisation system; (iii) use of the de-icing and anti-icing system.
	Oral questions



2.4. Chapter 4 — ATPL(A)

2.4.1. Who may test — see the common requirements table in Module 1

The skill tests for the issue of ATPL(A) are one of the TRE(A) and SFE(A) privileges as per FCL.1005.TRE TRE and FCL.1005.SFE SFE.

A TRE(A) or an SFE(A) may test if:

2.4.1.1. the applicant's licence has been issued by the same competent authority as the examiner's; or

2.4.1.2. in the case of an applicant for which the competent authority is not the same one that issued the examiner certificate, the examiner shall have reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

2.4.2. Conduct of test/check (Appendix 9 to Part-FCL)

The examiner may choose between different skill test or proficiency check scenarios containing simulated relevant operations developed and approved by the competent authority. Full-flight simulators and other training devices, when available, shall be used, as established in this Part.

During the proficiency check, the examiner shall verify that the holder of the class or type rating maintains an adequate level of theoretical knowledge.

Should the applicant choose to terminate a skill test for reasons considered inadequate by the examiner, the applicant shall retake the entire skill test. If the test is terminated for reasons considered adequate by the examiner, only those sections not completed shall be tested in a further flight.

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 demonstration of flying skill requires a complete retest.

An applicant shall be required to fly the aircraft from a position where the PIC or co-pilot functions, as relevant, can be performed and to carry out the test as if there is no other crew member if taking the test/check under single-pilot conditions. Responsibility for the flight shall be allocated in accordance with national regulations.

During the pre-flight preparation for the test, the applicant is required to determine power settings and speeds. The applicant shall indicate to the examiner the checks and duties carried out, including the identification of radio facilities. Checks shall be completed in accordance with the checklist for the aircraft on which the test is being taken 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 manual or flight manual for the aircraft used. Decision heights/altitude, minimum descent heights/altitudes, and missed approach point shall be agreed upon with the examiner.

The examiner shall take no part in the operation of the aircraft except where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic.



The skill test for a multi-pilot aircraft or a single-pilot aeroplane when operated in multi-pilot operations shall be performed in a multi-crew environment. Another applicant or another type-rated qualified pilot may function as second pilot. If an aircraft is used, the second pilot shall be the examiner or an instructor.

The applicant shall operate as PF during all sections of the skill test, except for abnormal and emergency procedures, which may be conducted as PF or PNF in accordance with MCC. The applicant for the initial issue of a multi-pilot aircraft type rating or ATPL shall also demonstrate the ability to act as PNF. The applicant may choose either the left or the right-hand seat for the skill test if all items can be executed from the selected seat.

The following matters shall be specifically checked by the examiner for applicants for the ATPL or a type rating for multi-pilot aircraft or for multi-pilot operations in a single-pilot aeroplane extending to the duties of a PIC, irrespective of whether the applicant acts as PF or PNF:

- (a) management of crew cooperation;
- (b) maintaining a general survey of the aircraft operation by appropriate supervision; and
- (c) setting priorities and making decisions in accordance with the safety aspects and relevant rules and regulations appropriate to the operational situation, including emergencies.

The test/check should be accomplished under IFR, if the IR rating is included, and as far as possible be accomplished in a simulated commercial air transport environment. An essential element to be checked is the ability to plan and conduct the flight from routine briefing material.

When the type rating course has included less than 2 hours of flight training on the aircraft, the skill test may be conducted in an FFS and may be completed before the flight training on the aircraft. In that case, a certificate of completion of the type rating course including the flight training on the aircraft shall be forwarded to the competent authority before the new type rating can be entered in the applicant's licence.

2.4.3. Flight test tolerances

The following limits shall apply, corrected to make allowance for turbulent conditions and the handling qualities and performance of the aeroplane used.

Height:

- Generally: ± 100 feet
- Starting a go-around at decision height: $+ 50$ feet/ $- 0$ feet
- Minimum descent height/altitude: $+ 50$ feet/ $- 0$ feet
- NPA or APV Baro final approach segment: ± 75 feet, or as defined in the Aircraft Flight Manual

Tracking:

- On radio aids: ± 5 degrees
- Precision approach: half-scale deflection, azimuth, and glide path



- RNAV (GNSS), NPA and APV Baro approach: \pm half required navigation accuracy (RNP), or as defined in the Aircraft Flight Manual
- Other approaches: \pm 5 degrees

Heading:

- All engines operating: \pm 5 degrees
- With simulated engine failure: \pm 10 degrees

Speed:

- All engines operating: \pm 5 knots
- With simulated engine failure: + 10 knots/– 5 knots



2.4.4. Content of the test

PHASE OF TEST OR CHECK	
Title of assessed item taken from the Part-FCL schedule	
OBJECTIVE	This cell describes the applicant's proficiency to be assessed by the examiner.
SKILL	<p>This cell describes the competency criteria which the applicant is required to demonstrate:</p> <ul style="list-style-type: none"> — manual aircraft control; — effective flight path management through proper use of the flight management system guidance and automation; — application of procedures.
KNOWLEDGE	This cell describes the knowledge needed to meet the objective's proficiency requirements.
ATTITUDE	<p>This cell describes the competency criteria encapsulated in airmanship, CRM, and threat and error management, such as:</p> <ul style="list-style-type: none"> — situation awareness; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.
General	
<p>In most phases of the flight there are competencies that apply to a group of manoeuvres, e.g. turns, or even to 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 to 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 at the end of the group identify the group.</p>	

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



SECTION 1: FLIGHT PREPARATION**1.1. Performance calculation**

OBJECTIVE	To determine that the applicant is able to complete the aircraft performance calculation.
SKILL	<p>To determine that the applicant demonstrates application of operating procedures by using proficiently performance charts, tables, graphs, or other data relating to items such as (but not limited to):</p> <ul style="list-style-type: none"> (a) accelerate-stop distance; (b) accelerate-go distance; (c) take-off performance — all engines; (d) one engine inoperative; (e) climb performance, including climb performance with all engines operating, with one engine inoperative, and with other engine malfunctions as may be appropriate; (f) cruise performance, including abnormal and emergency considerations (e.g. drift down); (g) fuel consumption, range, and endurance; (h) go-around from rejected landings; (i) operational factors affecting aircraft performance; (j) airspeeds used during specific phases of the flight; (k) effects of meteorological conditions upon the performance characteristics and correct application of these factors to a specific chart, table, graph or other performance data.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge and understanding of:</p> <ul style="list-style-type: none"> (a) performance as per licence requirements; (b) the adverse effects of exceeding any limitation; (c) the Aircraft Operating Handbook (AOH) chapters dedicated to: <ul style="list-style-type: none"> (1) limitations, (2) performance calculation in general, (3) performance calculation and associated procedures when specific conditions exist (weather, etc.).
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by identifying the potential threats when specific conditions of calculation and procedures apply; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 1: DEPARTURE**1.2. Aircraft external visual inspection; location of each item and purpose of inspection**

OBJECTIVE	To determine that the applicant is able to complete the aircraft external visual inspection.
SKILL	To determine that the applicant demonstrates the ability to apply the procedures outlined in the AOH relating to the aircraft external visual inspection, including the use of checklists as appropriate.
KNOWLEDGE	To determine that the applicant demonstrates knowledge and understanding of relevant information, including: (a) AOH; (b) normal procedures.
ATTITUDE	To determine that the applicant demonstrates: — situation awareness of the aircraft state in its environment by ensuring the safety of personnel and of the aircraft, and by ensuring the general area around the aircraft is free from hazards. — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making by noting any discrepancies and determining if the aircraft is airworthy and safe for flight, or takes the proper corrective action.



SECTION 1: DEPARTURE	
1.3. Cockpit inspection	
OBJECTIVE	To determine that the candidate is able to complete the aircraft cockpit inspection.
SKILL	To determine that the candidate demonstrates the ability to apply the procedures outlined in the AOH relating to aircraft cockpit inspection including the use of checklists as appropriate.
KNOWLEDGE	<p>To determine that the candidate demonstrates knowledge and understanding of relevant information including but not limited to:</p> <ul style="list-style-type: none"> (a) AOH; (b) normal procedures; (c) procedures and limitations for operating the aircraft with inoperative instruments; (d) operational status of the aircraft by locating and explaining the significance and importance of related documents such as: <ul style="list-style-type: none"> (1) airworthiness and registration certificates, (2) operating limitations, (3) mass and balance data, (4) maintenance requirements, tests, and appropriate records applicable to the proposed flight or operation, and maintenance that may be performed by the pilot.
ATTITUDE	<p>To determine that the candidate demonstrates:</p> <ul style="list-style-type: none"> — situation awareness of the aircraft state in its environment by ensuring the safety of personnel and of the aircraft by communicating with ground staff prior to moving any aircraft control surfaces or operating any aircraft hydraulic or electrical systems; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making by noting any discrepancies and determining if the aircraft is airworthy and safe for flight, or takes the proper corrective action.



SECTION 1: DEPARTURE**1.4. Use of checklist prior to starting engines, starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies**

OBJECTIVE	To determine that the applicant is able to apply procedures according to the AOH instructions for the checking of radio and navigation equipment, the selection and setting of navigation and communication frequencies, the starting of the aircraft engine(s) while demonstrating the correct use of the appropriate checklists prior to engine start.
SKILL	<p>To determine that the applicant demonstrates application of procedures for:</p> <ul style="list-style-type: none"> (a) the setting and checking of radio and navigation equipment; (b) the use of an auxiliary power unit (APU) or external power source (GPU and/or ASU); (c) starting under various atmospheric conditions, normal and abnormal starting limitations, and the actions required in the event of a malfunction; (d) ensuring that ground safety procedures are followed during the pre-start, start, and post-start phases; (e) ensuring the use of appropriate ground staff during the start procedures; (f) all the items of the start procedures by systematically following the approved briefing/checklist items for the pre-start, start, and post-start phases; (g) demonstrating sound judgement and operating practices in those instances where specific instructions or briefing/checklist items are not published.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the AOH related to:</p> <ul style="list-style-type: none"> (a) limitations; (b) normal operations; (c) abnormal operations.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness of the aircraft state in its environment by ensuring the safety of personnel and of the aircraft by communicating with ground staff prior to commencing engine start; — effective communication by checking that other crew members are briefed and at the same level of information as the PIC is; — leadership and teamwork; — effective workload management by managing interruptions, distractions, variations and failures effectively; — effective problem-solving and decision-making.



SECTION 1: DEPARTURE**1.5. Taxiing in compliance with air traffic control or instructions of examiner**

OBJECTIVE	To determine that the applicant can safely taxi/manoeuvre the aircraft on the ground, and comply with air traffic control instructions, airport markings, and signals.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) obtaining and following appropriate ATC clearance; (b) maintaining smooth, accurate, and positive aircraft control; (c) maintaining proper spacing on other aircraft, obstructions, and persons; (d) accomplishing the applicable briefing and checklist items.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) rules related to taxiing; (b) loss of communication; (c) airport or airfield marking and lighting: <ul style="list-style-type: none"> (1) runway hold lines, (2) localiser and glide slope critical areas, (3) beacons, and other surface control markings and lighting; (d) operator policy relating to taxiing; (e) sterile cockpit concepts; (f) AOH chapters relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by dividing attention properly inside and outside the cockpit; — effective communication; — leadership and teamwork by applying correct crew coordination (when applicable); — effective workload management by maintaining constant vigilance and lookout during taxi operation; — Effective problem-solving and decision-making.



SECTION 1: DEPARTURE**1.6. Pre-take-off checks**

OBJECTIVE	To determine that the applicant is able to perform pre-take-off procedures and actions.
SKILL	<p>To determine that the applicant demonstrates application of procedures by:</p> <ul style="list-style-type: none"> (a) performing all the items of the pre-take-off checklist; (b) ensuring that radios, instruments and navigation aids are appropriately checked and set; (c) ensuring that all systems are within their normal operating range as required by the AOH; (d) ensuring that the aircraft is correctly configured for take-off; (e) ensuring that correct crew and passenger briefings are complete; (f) ensuring/confirming that passengers and crew are correctly secured for take-off; (g) obtaining appropriate take-off clearance using standard R/T phraseology; (h) completing the appropriate checklist; (i) ensuring cockpit crew readiness for take-off.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) airport or airfield marking and lighting; (b) sterile cockpit concepts; (c) operator policy relating to pre-take-off procedures; (d) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making by noting any adverse changes of conditions that may affect the aircraft's take-off performance and recalculating performance or cancelling the take-off considering such factors including but not limited to: <ul style="list-style-type: none"> • wind, • weight, • temperature, • runway conditions, etc.



SECTION 2: TAKE-OFFS**2.1. Normal take-offs with different flap settings, including expedited take-offs**

OBJECTIVE	To determine that the applicant is able to conduct normal take-offs using different flap settings (as appropriate to the aircraft), including expedited take-offs as appropriate.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) aligning the aircraft on the runway centre line; (b) maintaining longitudinal alignment on the centre line of the runway prior to initiating and during the take-off; (c) correctly setting take-off power; (d) monitoring engine controls, settings, and instruments during take-off to ensure that all predetermined parameters are maintained; (e) using the applicable noise-abatement, departure, and wake-turbulence avoidance procedures, as required; (f) attaining the desired pitch attitude at the predetermined airspeed to achieve the desired performance; (g) maintaining the appropriate climb attitude; (h) performing or calling for and verifying 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 AOH; (i) achieving the appropriate airspeeds and climb segment profiles.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS**2.2. Instrument take-off**

OBJECTIVE	To determine that the applicant is able to conduct an instrument take-off in instrument meteorological conditions (simulated or actual).
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1., and by:</p> <ul style="list-style-type: none"> (a) setting the applicable radios/flight instruments to the desired setting prior to initiating the take-off; (b) transitioning smoothly and accurately from visual meteorological conditions to actual or simulated instrument meteorological conditions; (c) accomplishing the appropriate briefing/checklist items to ensure that the aeroplane systems applicable to instrument take-off are operating properly; and (d) complying with ATC clearances and instructions issued by ATC (or the examiner simulating ATC).
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — Situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS**2.3. Crosswind take-off**

OBJECTIVE	To determine that the applicant is able to conduct a crosswind take-off.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1., and by:</p> <ul style="list-style-type: none"> (a) setting the correct configuration for crosswind take-off and making suitable adjustments to airspeed as required; (b) applying the controls correctly for the crosswind condition; (c) transitioning smoothly and accurately from the runway into balanced, climbing flight maintaining the runway centre line.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS**2.4. Take-off at maximum take-off mass (actual or simulated maximum take-off mass)**

OBJECTIVE	To determine that the applicant is able to conduct a take-off at maximum take-off mass.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1., by:</p> <ul style="list-style-type: none"> (a) determining maximum performance, configuration, power and airspeeds in accordance with the AFM; (b) setting the correct configuration for maximum take-off mass and making suitable adjustments to airspeed as required; (c) positioning and aligning the aeroplane for maximum utilisation of the available take-off area; (d) establishing 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; (e) establishing the correct obstacle clearance track during climb.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS**2.5.1. Take-offs with simulated engine failure: shortly after reaching V2**

OBJECTIVE	To determine that the applicant is able to safely conduct a take-off in the event the most critical engine fails shortly after reaching V2.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1., by:</p> <ul style="list-style-type: none"> (a) maintaining control of the aircraft following engine failure; (b) verifying the inoperative engine; (c) securing the inoperative engine, if appropriate; (d) monitoring the operating engine and making adjustments as necessary; (e) maintaining the aeroplane alignment with the heading appropriate for climb performance and terrain clearance when engine failure occurs; (f) adjusting the engine controls as outlined in the AOH; (g) applying the proper procedure for any emergency/abnormal situation (as determined by the examiner) in the appropriate approved AOH; (h) completing the appropriate abnormal/emergency checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication by: <ul style="list-style-type: none"> • confirming fault diagnosis and reviewing causal factors (with other crew members in MPA); • confirming intended course of action (with other crew members in MPA); • ensuring that correct crew and passenger briefings are completed; — leadership and teamwork by: <ul style="list-style-type: none"> • involving other crew members in the option analysis (MPA); • considering and sharing the risks of alternative courses of action; • dividing attention properly inside and outside the cockpit; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • identifying alternative courses of action; • alerting ATC if necessary and obtaining the appropriate level of service.



SECTION 2: TAKE-OFFS**2.5.2. Take-offs with simulated engine failure: between V1 and V2**

OBJECTIVE	To determine that the applicant is able to safely conduct a take-off in the event the most critical engine fails between V1 and V2.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1., by:</p> <ul style="list-style-type: none"> (a) maintaining control of the aircraft following engine failure; (b) verifying the inoperative engine; (c) securing the inoperative engine, if appropriate; (d) monitoring the operating engine and making adjustments as necessary; (e) maintaining the aeroplane alignment with the heading appropriate for climb performance and terrain clearance when engine failure occurs; (f) adjusting the engine controls as outlined in the AOH; (g) applying the proper procedure for any emergency/abnormal situation (as determined by the examiner) in the appropriate approved AOH; (h) completing the appropriate abnormal/emergency checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication by: <ul style="list-style-type: none"> • confirming fault diagnosis and reviewing causal factors (with other crew members in MPA); • confirming intended course of action (with other crew members in MPA); • ensuring that correct crew and passenger briefings are completed; — leadership and teamwork by: <ul style="list-style-type: none"> • involving other crew members in the option analysis (MPA); • considering and sharing the risks of alternative courses of action; • dividing attention properly inside and outside the cockpit; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • identifying alternative courses of action; • alerting ATC if necessary and obtaining the appropriate level of service.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**Aeroplane control — General**

OBJECTIVE	To determine that the applicant demonstrates safe control of the aeroplane throughout the flight and during any manoeuvres required by the examiner.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) limiting the magnitude of control input; (b) maintaining smooth control, within the limitations of the airframe and control systems. (c) using correctly the cockpit checklists; (d) following correct procedures for controlling the aircraft with automatic flight control systems, as appropriate.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • maintaining adequate lookout before, during, and after the execution of any manoeuvre by visual references; • maintaining orientation throughout the manoeuvres; — effective communication by demonstrating correct crew coordination as required by the type of operation (MPA); — leadership and teamwork; — effective workload management by: <ul style="list-style-type: none"> • managing and monitoring the engine(s) and other aeroplane systems; • dividing attention properly inside and outside the cockpit; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.1. Turns with and without spoilers**

OBJECTIVE	To determine that the applicant demonstrates safe control of the aeroplane during turns with and without spoilers.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) controlling the transition to the turning attitude by using proper instrument cross-checks and coordinated control application; (b) turning onto specific visual references and headings by visual references (and solely by reference to instruments where appropriate to the flight); (c) following the correct procedures for controlling the aircraft with/without automatic flight control systems, as appropriate; (d) following appropriate SOP for the confirmation of intended heading (MPA); (e) establishing the configuration specified by the examiner; (f) maintaining the assigned altitude and airspeed throughout the turn.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining adequate lookout before, during, and after turning by visual references; — effective communication by liaising with other crew members for lookout (MPA); — leadership and teamwork; — effective workload management by effective orientation throughout the manoeuvre; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.2. Tuck under and Mach buffets after reaching the critical Mach number, and other specific flight characteristics of the aeroplane (e.g. Dutch roll)**

OBJECTIVE	<p>To determine that the applicant demonstrates 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):</p> <p>Note: An aeroplane should not be used for this exercise.</p>
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 3 'Aeroplane control — General', and by:</p> <ul style="list-style-type: none"> (a) establishing the recommended configuration and airspeed/Mach, and maintaining that airspeed/Mach; (b) using the proper technique to enter into, operate within, and recover from specific flight situations; (c) recognising critically high airspeed; (d) establishing the recommended configuration and airspeed, and maintains that airspeed; (e) controlling the aeroplane smoothly within its limitations; (f) following the appropriate action in accordance with the Flight Manual.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • maintaining adequate lookout before, during, and after the execution of any manoeuvre by visual references; • dividing attention properly inside and outside the cockpit; — effective communication through effective crew coordination as required by the type of operation (MPA); — leadership and teamwork; — effective workload management by: <ul style="list-style-type: none"> • managing and monitoring the engine(s) and other aeroplane systems; • maintaining orientation throughout the manoeuvres; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.3. Normal operation of systems and controls engineer's panel**

OBJECTIVE	To determine that the applicant demonstrates adequate knowledge and application of the procedures during normal operation of systems and controls engineer's panel.
SKILL	To determine that the applicant demonstrates application of procedures by: <ul style="list-style-type: none"> (a) properly using the aeroplane systems, subsystems, and devices (as may be determined by the examiner) appropriate to the aeroplane; (b) completing the appropriate checklist; (c) following the 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;
KNOWLEDGE	To determine that the applicant demonstrates knowledge related to: <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) performance.
ATTITUDE	To determine that the applicant demonstrates: <ul style="list-style-type: none"> — situation awareness; — effective communication by liaising with other crew members for the correct operation of the aircraft systems; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4. Engine (propeller, if necessary)**

OBJECTIVE	See 3.3. and 3.6.
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SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.1. Pressurisation and air conditioning****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.2. Pitot/static system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.3. Fuel system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.4. Electrical system****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.5. Hydraulic system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.6. Flight control and trim system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.7. Anti-icing/de-icing system, glare-shield heating****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.8. Autopilot/flight director****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.9. Stall-warning devices or stall-avoidance devices, and stability-augmentation devices****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.10. Ground-proximity warning system, weather radar, radio altimeter, transponder****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.11. Radios, navigation equipment, instruments, flight management system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.12. Landing gear and brake****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.13. Slat and flap system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.14. Auxiliary power unit****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6. Abnormal and emergency procedures**

OBJECTIVE	To determine that the applicant demonstrates adequate knowledge and application of the procedures during abnormal/emergency procedures.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) maintaining control of the aeroplane and safe trajectory; (b) showing correct fault diagnosis; (c) confirming fault diagnosis; (d) following the proper procedure for any emergency/abnormal situation (as determined by the examiner) in the appropriate approved AFM; (e) completing the appropriate abnormal/emergency checklist; (f) reviewing causal factors; (g) identifying alternative courses of action; (h) ensuring that correct crew and passenger briefings are completed; (i) alerting ATC if necessary and obtaining the appropriate level of service.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by dividing attention properly inside and outside the cockpit; — effective communication by considering and sharing the risks of alternative courses of action; — leadership and teamwork by involving other crew members in the option analysis; — effective workload management by maintaining adequate lookout before, during, and after the execution of any manoeuvre by visual references; — effective problem-solving and decision-making by confirming intended course of action.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES	
3.6.1. Fire drills, e.g. engine, APU, cabin, cargo compartment, flight deck, wing, and electrical fires, including evacuation	
OBJECTIVE	To determine that the applicant demonstrates adequate knowledge and application of the procedures related to fire drill.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) maintaining aeroplane control; (b) performing all the actions required by the fire drills; (c) following the proper procedures in accordance with the approved procedure/briefing/checklist or the manufacturer's recommended procedures.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) fire detection and extinguishing systems; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by taking care of passenger/crew safety; — effective communication; — leadership and teamwork by identifying source of smoke/fire in a timely manner; — effective workload management; — effective problem-solving and decision-making by initiating emergency descent/diversion if appropriate.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES	
3.6.1. Smoke control and removal	
OBJECTIVE	See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.3. Engine failures, shutdown, and restart at a safe height****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.4. Fuel dumping****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.5. Wind shear at take-off/landing**

OBJECTIVE	To determine that the applicant is able to accomplish the manoeuvres related to wind shear at take-off/landing.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) adjusting the aeroplane configuration and speeds as appropriate; (b) performing all the procedures required for wind shear at take-off/landing and aeroplane control in a smooth, positive, and timely manner; (c) maintaining smooth and positive control within the aeroplane limitations; (d) demonstrating sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) operator policy relating to adverse weather; (c) wind shear detection systems; (d) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	See 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.6. Simulated cabin pressure failure/emergency descent**

OBJECTIVE	To determine that the applicant is able to accomplish the manoeuvres related to simulated cabin pressure failure/emergency descent.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) performing emergency descent in a smooth, positive, and timely manner without exceeding the limitations; (b) demonstrating proper procedures in accordance with the approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items; (c) demonstrating sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) air conditioning and pressurisation systems; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	See 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.7. Incapacitation of flight crew member**

OBJECTIVE	To determine that the applicant is able to manage incapacitation of a flight crew member.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) maintaining aeroplane control in a smooth, positive, and timely manner; (b) performing all procedures for flight crew member incapacitation in accordance with the approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by ensuring safety of flight crew members and clear of aeroplane controls; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making by identifying flight crew member incapacitation in a timely manner.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.8. Other emergency procedures as outlined in the appropriate Aeroplane Flight Manual****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.9. ACAS event****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.7. Steep turns with a 45-degree bank, 180 to 360 degrees left and right**

OBJECTIVE	To determine that the applicant is able to accomplish steep turns (if applicable to the aeroplane), and is aware of the factors associated with performance, wing loading, angle of bank, stall speed, pitch, power requirements, and over-banking tendencies.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) selecting a safe height as recommended by the manufacturer, training syllabus, or other training directive, or as agreed with the examiner; (b) establishing the recommended entry airspeed in straight and level flight; (c) rolling into a coordinated turn of 360 degrees with a bank angle of not less than 45 degrees, and maintaining the bank angle in a stable, balanced turn; (d) applying smooth, coordinated pitch, bank, and power adjustments to maintain the specified altitude, attitude, and airspeed; (e) avoiding any indication of an approaching stall, abnormal flight attitude, or exceeding any structural or operating limitation during any part of the manoeuvre; (f) rolling out of the turn, stabilises the aeroplane in straight and level flight or, at the discretion of the examiner, reverses the direction of turn and repeats the manoeuvre in the opposite direction; (g) recovering accurately onto the desired heading and at the desired airspeed for straight and level flight.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining adequate lookout before, during, and after turning by visual references; — effective communication by liaising with other crew members for lookout (MPA); — leadership and teamwork; — effective workload management by demonstrating orientation throughout the manoeuvre; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.8. Early recognition of and countermeasures to approaching stall (up to activation of stall-warning device) in take-off configuration (flaps in take-off position), in cruising flight configuration, and in landing configuration (flaps in landing position, landing gear extended)**

OBJECTIVE	To determine that the applicant demonstrates early recognition of and countermeasures to approaching stall.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3 'Aeroplane control — General' by:</p> <ul style="list-style-type: none"> (a) establishing the recommended configuration and airspeed, and maintains that airspeed; (b) following the appropriate action in accordance with the Flight Manual; (c) controlling aeroplane smoothly within its limitations.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • ensuring that the aeroplane is in a safe area and clear of hazards prior to accomplishing an approach to a stall; • recognising critically high airspeed; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.8.1. Recovery from full stall or after activation of stall-warning device in climb, cruise, and approach configuration**

OBJECTIVE	To determine that the applicant performs safely a recovery from full stall or after activation of stall-warning device in climb, cruise, and approach configuration.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3 'Aeroplane control — General' by:</p> <ul style="list-style-type: none"> (a) configuring the aeroplane as required by the examiner, from level flight, or descending, as if on an approach path; (b) recovering at the first indication of an impending stall as appropriate to aeroplane design, and initiates recovery or as directed by the examiner; (c) retracting gear and flaps as appropriate; (d) completing the appropriate briefing/checklist including go-around or after take-off checks.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • ensuring that the aeroplane is in a safe area and clear of hazards prior to accomplishing an approach to a stall; • recognising critically high airspeed; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.1.* Adherence to departure and arrival routes and to ATC instructions**

OBJECTIVE	To determine that the applicant is able to ensure adherence to departure and arrival routes and to ATC instructions during instrument flight procedures.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) making correct use of instruments, flight director, autopilot, navigation equipment, and communication equipment appropriate to the performance of the procedure; (b) intercepting, in a timely manner, all courses, radials, and bearings (QDM/QDRs) appropriate to the procedure, route, ATC clearance, or as directed by the examiner; (c) establishing, where appropriate, a rate of descent consistent with the aeroplane operating characteristics and safety; (d) maintaining the appropriate airspeed, altitude, and headings, and accurately tracks radials, courses, and bearing (QDM/QDR); (e) using the current and appropriate navigation publications for the proposed flight; (f) accomplishing the aeroplane briefing/checklist items appropriate to the departure and arrival; (g) establishing communication with ATC using proper phraseology; (h) interpreting correctly the ATC clearance received and, when necessary, requests clarification, verification, or change; (i) complying, in a timely manner, with all ATC clearances, instructions, and restrictions; (j) adhering to airspeed restrictions and adjustments required by regulations, ATC, the Pilot Operating Manual, the AFM, and the examiner; (k) complying with the provisions of the descent profile, STAR, and other arrival procedures, as appropriate; (l) performing correct altimetry procedures in accordance with the relevant regulations, operational procedures, and ATC requirements; (m) completing the appropriate checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) R/T phraseology; (b) two-way communications failure procedures; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.



ATTITUDE	To determine that the applicant demonstrates:
	— situation awareness by taking into account aeroplane performance, obstacle clearance, etc.;
	— effective communication by ensuring that correct crew and passenger briefings are completed;
	— leadership and teamwork by liaising with other flight crew members for the correct operation of the aircraft systems during approach and landing;
	— effective workload management through effective orientation, division of attention, and proper planning;
	— effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.2.* Holding procedures**

OBJECTIVE	To determine that the applicant is able to accomplish holding procedures during instrument flight procedures.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 3.9.1. by:</p> <ul style="list-style-type: none"> (a) making changes to the recommended holding airspeed appropriate for the aeroplane and holding altitude, so as to cross the holding fix at or below the maximum holding airspeed; (b) using wind-drift correction techniques accurately to maintain the appropriate joining and holding pattern, and to establish and maintain the correct tracks and bearings; (c) maintaining the appropriate airspeed, altitude, and headings accurately to establish and maintain the correct tracks and bearings; (d) recognising arrival at the clearance limit or holding fix; (e) following appropriate entry procedures in accordance with standard operational procedures or as required by ATC or the examiner; (f) complying with the ATC reporting requirements. (g) using the correct timing criteria where required by the holding procedure, ATC or the examiner's instructions; (h) making appropriate adjustments to the procedure timing to allow for the effects of known wind; (i) making appropriate adjustments in order to arrive over the holding fix as close as possible to the 'Expected Approach Time'.
KNOWLEDGE	To determine that the applicant demonstrates knowledge outlined in Section 3.9.1., and adequate knowledge of holding endurance including but not necessarily limited to fuel on board, fuel flow while holding, fuel required to alternate, etc.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by taking into account aeroplane performance, obstacle clearance, etc.; — effective communication by ensuring that correct crew and passenger briefings are completed; — leadership and teamwork by liaising with other flight crew members for the correct operation of the aircraft systems during approach and landing; — effective workload management by effective orientation, division of attention, and proper planning; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.3.* Precision approaches down to a decision height (DH) not less than 60 m (200 ft)****OBJECTIVE**

To determine that the applicant is able to accomplish precision approaches down to a decision height (DH) not less than 60 m (200 ft).



SKILL

To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:

- (a) selecting, tuning, identifying, and monitoring the operational status of the ground and aeroplane navigation equipment used for the approach;
- (b) applying the necessary adjustments to the published approach minima criteria for the aeroplane approach category, and with due regard to:
 - (1) NOTAMs,
 - (2) inoperative navigation equipment,
 - (3) inoperative visual aids associated with the landing environment,
 - (4) reported weather conditions;
- (c) accomplishing the aeroplane briefing/checklist items appropriate to the phase of flight or approach segment, including engine-out approach and landing briefing/checklists;
- (d) following the published approach procedure in accordance with the ATC instructions, or as directed by the examiner;
- (e) establishing a two-way communication with ATC using the proper communication phraseology and techniques;
- (f) copying correctly, in a timely manner, the ATC clearance as issued;
- (g) establishing the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions;
- (h) prior to beginning the final approach segment, maintaining the desired altitude, heading, and airspeed, and accurately tracks radials, courses, and bearings in accordance with the approach procedure or as directed by ATC;
- (i) making appropriate adjustments to the procedure timing to allow for the effects of known wind;
- (j) intercepting and tracking the localiser within the prescribed limits;
- (k) establishing a predetermined rate of descent at the point where the electronic glide slope begins, in order to follow the glide slope, and maintains electronic glide slope within the prescribed limits;
- (l) demonstrating 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;
- (m) arriving at DA/DH in such a position that a landing, go-around or circling approach may be accomplished safely;
- (n) avoiding descent below DA/DH before initiating a missed approach procedure or transitioning to a landing;
- (o) initiating immediately the missed approach, when at DA/DH, if the required visual references for the runway are not unmistakably visible and identifiable;
- (p) maintaining localiser and glide slope during the visual descent from DA/DH to a point over the runway where glide slope must be abandoned to accomplish a normal landing;
- (q) transitioning 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.



KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) R/T phraseology; (b) two-way communications failure procedures; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness through effective orientation throughout the manoeuvre; — effective communication through correct crew coordination as required by the type of operation; — leadership and teamwork by encouraging participation of other flight crew members in accordance with the approved SOP; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.4.* Non-precision approach down to MDH/A**

OBJECTIVE	To determine that the applicant is able to accomplish a non-precision approach down to MDH/A.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) selecting, tuning, identifying, and monitoring the operational status of the ground and aeroplane navigation equipment used for the approach; (b) applying the necessary adjustments to the published approach minima criteria for the aeroplane approach category, and with due regard to: <ul style="list-style-type: none"> (1) NOTAMs, (2) inoperative navigation equipment, (3) inoperative visual aids associated with the landing environment, (4) reported weather conditions; (c) accomplishing the aeroplane briefing/checklist items appropriate to the phase of the flight or approach segment, including engine-out approach and landing briefing/checklists; (d) following the published approach procedure in accordance with the ATC instructions, or as directed by the examiner; (e) establishing a two-way communication with ATC using the proper communication phraseology and techniques; (f) copying correctly, in a timely manner, the ATC clearance as issued; (g) establishing the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions; (h) prior to beginning the final approach segment, maintaining the desired altitude, heading, and airspeed, and accurately tracks radials, courses, and bearings in accordance with the approach procedure or as directed by ATC; (i) making appropriate adjustments to the procedure timing to allow for the effects of known wind; (j) establishing a rate of descent that will ensure arrival at 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; (k) demonstrating 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; (l) executing the missed approach if the required visual references for the intended runway are not unmistakably visible and identifiable at the missed approach point; (m) transitioning 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.



KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) R/T phraseology; (b) two-way communications failure procedures; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness through effective orientation throughout the manoeuvre; — effective communication through correct crew coordination as required by the type of operation; — leadership and teamwork by encouraging participation of other flight crew members in accordance with the approved SOP; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9.5. Circling approach under the following conditions: (a)... (b)...**

OBJECTIVE	To determine that the applicant is able to accomplish a circling approach.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 3.9.3. or 3.9.4. by:</p> <ul style="list-style-type: none"> (a) using the appropriate aeroplane configuration for normal and abnormal situations and procedures; (b) manoeuvring 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 degrees from the final approach course, or according to the published procedure; (c) maintaining at least the published minimum circling level throughout the circling procedure until a position is reached from which a descent to a normal landing can be made; (d) maintaining visual contact with the landing threshold throughout the circling procedure; (e) performing the procedure without excessive manoeuvring and without exceeding the normal operating limits of the aeroplane (the angle of bank should not normally exceed 30 degrees); (f) confirming the direction of traffic and adheres to all restrictions and instructions issued by ATC; (g) maintaining the correct circling pattern and follows any prescribed tracks in accordance with the published procedure or as directed by ATC or the examiner; (h) turning in the appropriate direction when a missed approach is dictated during the circling approach, and uses the correct procedure and aeroplane configuration.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) circling approach categories, speeds, and procedures; (b) aeroplane manoeuvring capabilities throughout the circling approach; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.



ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none">— situation awareness:<ul style="list-style-type: none">• through effective orientation throughout the manoeuvre;• by noting any surface conditions, obstructions, adverse meteorological conditions or other hazards that might hinder a safe landing;• by maintaining adequate lookout for other aeroplanes;— effective communication through correct crew coordination as required by the type of operation;— leadership and teamwork by encouraging participation of other flight crew members in accordance with the approved SOP;— effective workload management by dividing attention properly inside and outside the cockpit;— effective problem-solving and decision-making.
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SECTION 4: MISSED APPROACH PROCEDURES**4.1. Go-around with all engines operating* after an ILS approach on reaching DH**

OBJECTIVE	To determine that the applicant is able to accomplish the go-around procedure with all engines operating* after an ILS approach on reaching decision height.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, effective flight path management, and application of procedures by:</p> <ul style="list-style-type: none"> (a) initiating the go-around procedure promptly by the timely application of power, establishes the proper climb attitude, and reconfigures the aircraft in accordance with the approved procedures; (b) maintaining the desired altitudes, airspeed, and heading, and accurately tracks courses, radials, and bearings; (c) complying with the appropriate missed approach procedure or ATC clearance; (d) using FMS guidance and automation where applicable; (e) accomplishing the appropriate checklist items in a timely manner in accordance with the approved procedures; (f) interpreting correctly the ATC clearance received and, when necessary, requesting clarification, verification, or change; (g) requesting clearance, if appropriate, to the alternate aerodrome, another approach, a holding fix, or as directed by the examiner.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) flight procedures; (b) all-weather operations; (c) stabilised approach criteria; (d) visual references; (e) go-around all-engines pattern; (f) aeroplane limitations.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by managing the airspace environment, limitations, and restrictions (for example: MSA, obstacle clearance); — effective communication by making appropriate crew notification when safe to do so; — leadership and teamwork; — effective workload management: <ul style="list-style-type: none"> • through effective fuel management; • by managing the correct operation of the aircraft systems; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • rejecting the landing for actual or simulated circumstances; • managing the flight to an alternate if needed.



SECTION 4: MISSED APPROACH PROCEDURES**4.2. Other missed approach procedures (see Section 4.1.)**

OBJECTIVE	To determine that the applicant is able to perform missed approach procedures in circumstances other than those referred to in Section 4.1.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) performing a go-around before reaching the missed approach point, when applicable (NPA), and executes the appropriate missed approach procedure within the prescribed limits; (b) maintaining the missed approach track within the circling approach area until reaching a safe altitude or joining the original missed approach; (c) complying with non-standard go-around procedures (for example: go-around requiring small change of altitude or high-altitude go-around); (d) informing ATC of the specific circling missed approach track.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) circling approach procedures; (b) non-precision approach procedures; (c) non-standard go-around procedures; (d) airspace environment.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by managing the airspace environment, limitations and restrictions (for example: MSA, obstacle clearance); — effective communication by making appropriate crew notification when safe to do so; — leadership and teamwork; — effective workload management: <ul style="list-style-type: none"> • through effective fuel management; • by managing the correct operation of the aircraft systems; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • rejecting the landing for actual or simulated circumstances; • managing the flight to an alternate if needed.



SECTION 4: MISSED APPROACH PROCEDURES**4.3. Manual go-around with the critical engine simulated inoperative after an instrument approach on reaching DH, MDH or MAPt (see Sections 4.1. and 4.2.)**

OBJECTIVE	To determine that the applicant is able to perform a missed approach procedure with the critical engine simulated inoperative after an instrument approach on reaching DH, MDH or MAPt.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) applying the appropriate power setting for the flight condition, controlling yaw, and establishes a pitch attitude necessary to achieve the desired performance; (b) establishing a positive rate of climb, and climbs at the appropriate airspeed to the correct acceleration altitude; (c) retracting the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence; (d) trimming the aeroplane as necessary, and maintains the proper ground track and altitudes during the rejected landing procedure; (e) accomplishing the appropriate briefing/checklist items in a timely manner in accordance with the approved procedures.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) engine-out performances; (d) engine-out patterns.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • monitoring engine-out landing capacity; • monitoring OEI performance, weather, obstacle clearance, etc.; — effective communication with flight crew members and ATC; — leadership and teamwork through effective crew coordination during the go-around and engine-out procedures; — effective workload management; — effective problem-solving and decision-making.



SECTION 4: MISSED APPROACH PROCEDURES**4.4. Rejected landing at 15 m (50 ft) above runway threshold and go-around
(see Section 4.1. plus the items below)**

OBJECTIVE	To determine that the applicant demonstrates the ability to perform a rejected landing procedure.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) applying the appropriate power setting for the flight condition and establishing a pitch attitude necessary to obtain the desired performance; (b) trimming the aeroplane as necessary, and maintaining the proper ground track during the rejected landing procedure; (c) retracting the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and establishing a positive rate of climb at the appropriate airspeed.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) supplementary procedures if available; (b) restrictions on pitch attitude; (c) procedure for gear and flap retraction.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by monitoring performance, weather, obstacle clearance, etc.; — effective communication with flight crew members and ATC; — leadership and teamwork through effective flight crew coordination during the go-around and engine-out procedures; — effective workload management; — effective problem-solving and decision-making.



SECTION 5: LANDINGS**5.1. Normal landings*, also after an ILS approach, with transition to visual flight on reaching DH**

OBJECTIVE	To determine that the applicant is able to perform normal landings, also after an ILS approach, with transition to visual flight on reaching DH.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) establishing the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required to maintain the correct approach path and airspeed; (b) maintaining a ground track that ensures the desired traffic circuit will be flown, taking into account any obstructions and ATC or examiner requirements; (c) making proper correction for drift (using existing wind conditions), and maintaining a precise ground track; (d) achieving and maintaining a stabilised approach; (e) considering wind conditions, landing surface, and obstructions, and selects the correct touchdown point; (f) accomplishing a smooth, positively controlled transition from final approach to touchdown; (g) achieving a landing within the designated touchdown zone, at the correct speed, in the correct attitude and on the runway centre line; (h) touching down with no side drift and with the aeroplane aligned with the runway centre line; (i) maintaining positive directional control throughout the landing roll; (j) using 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; (k) using correctly the aircraft systems during approach and landing; (l) interpreting the ATC clearance received and, when necessary, requesting clarification, verification, or change; (m) ensuring or confirming that passengers and crew are correctly secured for take-off/landing; (n) completing the appropriate pre-landing checklist; (o) accomplishing the appropriate post-landing checklist items.



KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the AOH relating but not limited to:</p> <ul style="list-style-type: none"> (a) Operations Manual/SOPs as applicable; (b) all-weather operations; (c) stabilised approach criteria; (d) visual references; (e) approach and landing patterns; (f) aircraft/performance limitations; (g) airport markings and lightings; (h) recommended approach angles; (i) wake turbulence; (j) maximum speed for the use of high-speed turn-off.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by noting any surface conditions, obstructions, adverse meteorological conditions or other hazards that might hinder a safe landing; — effective communication by monitoring ATC instructions; — leadership and teamwork; — effective workload management by dividing attention properly inside and outside the cockpit and maintaining adequate lookout for other aeroplanes; — effective problem-solving and decision-making by rejecting the landing for any safety reason.



SECTION 5: LANDINGS**5.2. Landing with simulated jammed horizontal stabiliser in any out-of-trim position
(see Section 5.1. plus the items below)**

OBJECTIVE	To determine that the applicant is able to control the aircraft with jammed stabilisers in any out-of-trim position.
SKILL	<p>To determine that the applicant demonstrates aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) maintaining a stabilised approach at an appropriate approach speed, in accordance with the Pilot Operating Manual/AFM; (b) maintaining safe aeroplane control in a smooth, positive, and timely manner; (c) confirming fault diagnosis (with other flight crew members in MPA); (d) reviewing causal factors (with other flight crew members in MPA).
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) abnormal procedures; (b) jammed stabiliser patterns if available; (c) ATC phraseology to obtain the appropriate clearance and advise ATC of any technical problem.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • making allowance for landing performance; • noting any surface conditions, obstructions, adverse meteorological conditions or other hazards that might hinder a safe landing; — effective communication with flight crew members and ATC; — leadership and teamwork through effective flight crew coordination during the landing; — effective workload management; — effective problem-solving and decision-making.



SECTION 5: LANDINGS**5.3. Crosswind landings (a/c, if practicable)**

OBJECTIVE	To determine that the applicant exhibits the ability to perform normal landings with crosswind.
SKILL	To determine that the applicant demonstrates application of procedures by: <ul style="list-style-type: none"> (a) adjusting aeroplane configuration and speeds as appropriate; (b) performing all procedures required for crosswind landing and aeroplane control in a smooth, positive, and timely manner.
KNOWLEDGE	To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to: <ul style="list-style-type: none"> (a) landing technique; (b) hazardous atmospheric conditions; (c) aircraft crosswind limitation.
ATTITUDE	To determine that the applicant demonstrates: <ul style="list-style-type: none"> — situation awareness with regard to the aircraft flight path; — effective communication with flight crew and ATC by taking into account the crosswind condition and its effect on the aircraft stability; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 5: LANDINGS	
5.4. Traffic pattern and landing without extended or with partly extended flaps and slats	
OBJECTIVE	To determine that the applicant is able to accomplish the traffic pattern and landing without extended or with partly extended flaps and slats.
SKILL	<p>To determine that the applicant demonstrates aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) maintaining the appropriate pitch attitude, speeds, and flight path for the configuration, gross weight, surface winds, and other applicable operational considerations; (b) performing all the procedures required for landing without flaps or with partly extended flaps and slats, and controls the aeroplane in a smooth, positive, and timely manner; (c) correcting utilisation of all available drag and braking devices after landing to bring the aircraft to a safe stop.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the AOH relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) flaps/slats abnormal configuration patterns, if available.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by managing the airspace environment, limitations, and restrictions (for example: MSA, obstacle clearance); — effective communication; — leadership and teamwork; — effective workload management by establishing timely the appropriate landing configuration and speeds, as applicable; — effective problem-solving and decision-making by choosing a suitable landing airport taking into account the go-around and landing performance.



SECTION 5: LANDINGS**5.5. Landing with critical engine simulated inoperative**

OBJECTIVE	To determine that the applicant is able to perform a safe landing with the critical engine simulated inoperative.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control by:</p> <ul style="list-style-type: none"> (a) establishing the approach and landing configuration appropriate for the runway and weather conditions, and adjusts the engine controls as required; (b) maintaining a stabilised approach and desired airspeed; (c) maintaining the operating engine(s) within the acceptable operating limits; (d) accomplishing a smooth, positively controlled transition from final approach to touchdown; (e) correcting utilisation of all available drag and braking devices after landing to bring the aircraft to a safe stop; (f) maintaining positive directional control and crosswind corrections during the post-landing roll.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the AOH relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) engine inoperative profile as applicable; (d) engine inoperative go-around and landing performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness; — effective communication with flight crew and ATC taking into account the one-engine-inoperative condition; — leadership and teamwork; — effective workload management by establishing appropriate landing configuration, profile, and speeds as applicable; — effective problem-solving and decision-making.



SECTION 5: LANDINGS**5.6. Landing with two engines inoperative:**

- aeroplanes with three engines: the centre engine and one outboard engine as far as practicable according to data of the AFM;
- aeroplanes with four engines: two engines at one side.

OBJECTIVE	To determine that the applicant is able to perform a safe landing with two engines inoperative.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control by:</p> <ul style="list-style-type: none"> (a) establishing the approach and landing configuration appropriate for the runway and weather conditions, and adjusts the engine(s) controls as required; (b) maintaining a stabilised approach and desired airspeed; (c) maintaining the operating engine(s) within the acceptable operating limits; (d) accomplishing a smooth, positively controlled transition from final approach to touchdown; (e) correcting utilisation of all available drag and braking devices after landing to bring the aircraft to a safe stop; (f) maintaining positive directional control and crosswind corrections during the post-landing roll.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the AOH relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) two-engine-inoperative profile as applicable; (d) two-engine-inoperative go-around and landing performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness; — effective communication with flight crew and ATC taking into account the one-engine-inoperative condition; — leadership and teamwork; — effective workload management by establishing appropriate landing configuration, profile, and speeds as applicable; — effective problem-solving and decision-making.



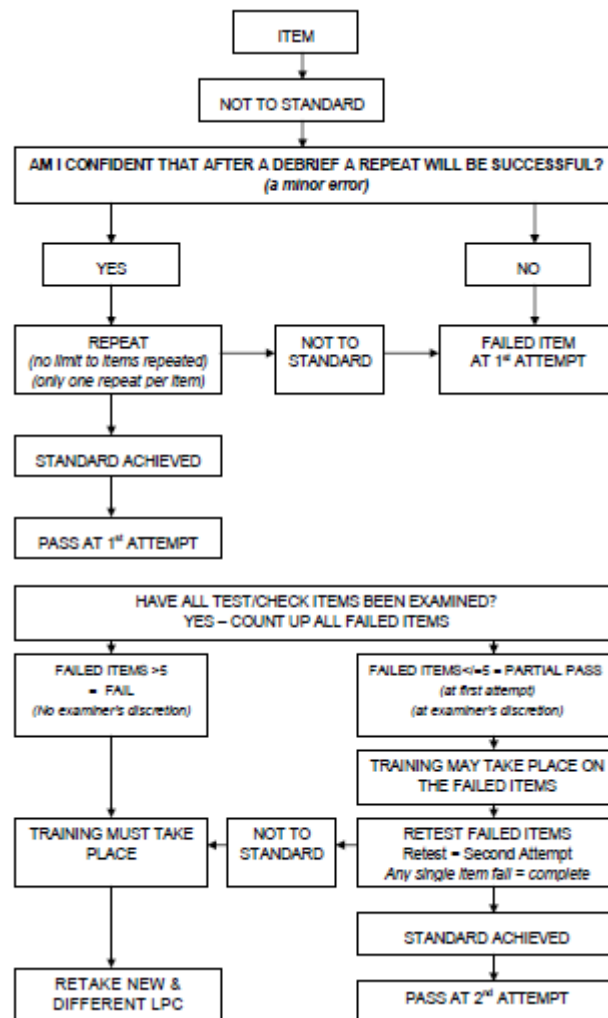
2.4.5. Pass/fail criteria

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 retest or recheck, 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 Section 6 in the appropriate type of aircraft.



2.5. Chapter 5 — MPL(A)

2.5.1. Who may test — see the common requirements table

The skill tests for the issue of MPL(A) are one of the TRE(A) and SFE(A) privileges as per FCL.1005.TRE TRE and FCL.1005.SFE SFE.

A TRE(A) or an SFE(A) may test if:

- 2.5.1.1. the applicant's licence has been issued by the same competent authority as the examiner's; or
- 2.5.1.2. in the case of an applicant for which the competent authority is not the same one that issued the examiner certificate, the examiner shall have reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

2.5.2. Conduct of test/check (Appendix 9 to Part-FCL)

The examiner may choose between different skill test or proficiency check scenarios containing simulated relevant operations developed and approved by the competent authority. Full-flight simulators and other training devices, when available, shall be used, as established in this Part.

During the proficiency check, the examiner shall verify that the holder of the class or type rating maintains an adequate level of theoretical knowledge.

Should the applicant choose to terminate a skill test for reasons considered inadequate by the examiner, the applicant shall retake the entire skill test. If the test is terminated for reasons considered adequate by the examiner, only those sections not completed shall be tested in a further flight.

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 demonstration of flying skills requires a complete retest.

An applicant shall be required to fly the aircraft from a position where the PIC or co-pilot functions, as relevant, can be performed and to carry out the test as if there was no other flight crew member present if taking the test/check under single-pilot conditions. Responsibility for the flight shall be allocated in accordance with national regulations.

During pre-flight preparation for the test, the applicant is required to determine power settings and speeds. The applicant shall indicate to the examiner the checks and duties carried out, including the identification of radio facilities. Checks shall be completed in accordance with the checklist for the aircraft in which the test is being taken 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 Manual or Flight Manual for the aircraft used. Decision heights/altitude, minimum descent heights/altitudes, and missed approach point shall be agreed upon with the examiner.

The examiner shall take no part in the operation of the aircraft except where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic.

The skill test for a multi-pilot aircraft or a single-pilot aeroplane, when operated in multi-pilot operations, shall be performed in a multi-crew environment. Another applicant or



another type-rated qualified pilot may function as second pilot. If an aircraft is used, the second pilot shall be the examiner or an instructor.

The applicant shall operate as PF during all sections of the skill test, except for abnormal and emergency procedures, which may be conducted as PF or PNF in accordance with MCC. The applicant for the initial issue of a multi-pilot aircraft type rating or ATPL shall also demonstrate the ability to act as PNF. The applicant may choose either the left or the right-hand seat for the skill test if all items can be executed from the selected seat.

The following matters shall be specifically checked by the examiner for applicants for the ATPL or a type rating for multi-pilot aircraft or for multi-pilot operations in a single-pilot aeroplane extending to the duties of a PIC, irrespective of whether the applicant acts as PF or PNF:

- (a) management of crew cooperation;
- (b) maintaining a general survey of the aircraft operation by appropriate supervision; and
- (c) setting priorities and making decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation, including emergencies.

The test/check should be accomplished under IFR, if IR rating is included, and as far as possible be accomplished in a simulated commercial air transport environment. An essential element to be checked is the ability to plan and conduct the flight from routine briefing material.

When the type rating course has included less than 2 hours of flight training on the aircraft, the skill test may be conducted in an FFS and may be completed before the flight training on the aircraft. In that case, a certificate of completion of the type rating course, including the flight training on the aircraft, shall be forwarded to the competent authority before the new type rating can be entered in the applicant's licence.

2.5.3. Flight test tolerances

The following limits shall apply, corrected to make allowance for turbulent conditions and the handling qualities and performance of the aeroplane used.

Height:

- Generally: ± 100 feet
- Starting a go-around at decision height: $+ 50$ feet/ $- 0$ feet
- Minimum descent height/altitude: $+ 50$ feet/ $- 0$ feet
- NPA or APV Baro final approach segment: ± 75 feet, or as defined in the Aircraft Flight Manual

Tracking:

- On radio aids: ± 5 degrees
- Precision approach: half scale deflection, azimuth and glide path
- RNAV (GNSS) NPA and APV Baro approach: \pm half required navigation accuracy (RNP), or as defined in the Aircraft Flight Manual
- Other approaches: ± 5 degrees



Heading:

- All engines operating: ± 5 degrees
- With simulated engine failure: ± 10 degrees

Speed:

- All engines operating: ± 5 knots
- With simulated engine failure: $+ 10$ knots/ $- 5$ knots



2.5.4. Content of the test

PHASE OF TEST OR CHECK	
Title of assessed item taken from the Part-FCL schedule	
OBJECTIVE	This cell describes the applicant's proficiency to be assessed by the examiner.
SKILL	<p>This cell describes the competency criteria which the applicant is required to demonstrate:</p> <ul style="list-style-type: none"> — manual aircraft control; — effective flight path management through proper use of the flight management system guidance and automation; — application of procedures.
KNOWLEDGE	This cell describes the knowledge needed to meet the objective's proficiency requirements.
ATTITUDE	<p>This cell describes the competency criteria encapsulated in airmanship, CRM, and threat and error management, such as:</p> <ul style="list-style-type: none"> — situation awareness; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.
General	
<p>In most phases of the flight there are competencies that apply to a group of manoeuvres, e.g. turns, or even to 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 to 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 at the end of the group identify the group.</p>	

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



SECTION 1: FLIGHT PREPARATION**1.1. Performance calculation**

OBJECTIVE	To determine that the applicant is able to complete the aircraft performance calculation.
SKILL	<p>To determine that the applicant demonstrates application of operating procedures by using proficiently performance charts, tables, graphs or other data relating to items such as but not limited to:</p> <ul style="list-style-type: none"> (a) accelerate-stop distance; (b) accelerate-go distance; (c) take-off performance — all engines; (d) one engine inoperative; (e) climb performance, including climb performance with all engines operating, with one engine inoperative, and with other engine malfunctions as may be appropriate; (f) cruise performance including abnormal and emergency considerations, e.g. drift down; (g) fuel consumption, range, and endurance; (h) go-around from rejected landings; (i) operational factors affecting aircraft performance; (j) airspeeds used during specific phases of flight; (k) effects of meteorological conditions upon performance characteristics and correct application of these factors to a specific chart, table, graph or other performance data.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge and understanding of:</p> <ul style="list-style-type: none"> (a) performance as per licence requirements; (b) the adverse effects of exceeding any limitation; (c) the AOH chapters dedicated to: <ul style="list-style-type: none"> (1) limitations, (2) performance calculation in general, (3) performance calculation and associated procedures when specific conditions exist (weather, etc.).
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by identifying the potential threats when specific conditions of calculation and procedures apply; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 1: DEPARTURE	
1.2. Aircraft external visual inspection; location of each item and purpose of inspection	
OBJECTIVE	To determine that the applicant is able to complete the aircraft external visual inspection.
SKILL	To determine that the applicant demonstrates the ability to apply the procedures outlined in the AOH relating to the aircraft external visual inspection, including the use of checklists as appropriate.
KNOWLEDGE	To determine that the applicant demonstrates knowledge and understanding of relevant information including: (a) AOH; (b) normal procedures.
ATTITUDE	To determine that the applicant demonstrates: — situation awareness of the aircraft state in its environment by ensuring the safety of personnel and the aircraft, and by ensuring the general area around the aircraft is free from hazards; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making by noting any discrepancies and determining if the aircraft is airworthy and safe for flight, or takes the proper corrective action.



SECTION 1: DEPARTURE	
1.3. Cockpit inspection	
OBJECTIVE	To determine that the applicant is able to complete the aircraft cockpit inspection.
SKILL	To determine that the applicant demonstrates the ability to apply the procedures outlined in the AOH relating to aircraft cockpit inspection, including the use of checklists as appropriate.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge and understanding of relevant information including but not limited to:</p> <ul style="list-style-type: none"> (a) AOH; (b) normal procedures; (c) procedures and limitations for operating the aircraft with inoperative instruments; (d) operational status of the aircraft by locating and explaining the significance and importance of related documents such as: <ul style="list-style-type: none"> (1) airworthiness and registration certificates, (2) operating limitations, (3) mass and balance data, (4) maintenance requirements, tests, and appropriate records applicable to the proposed flight or operation, as well as maintenance that may be performed by the pilot.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness of the aircraft state in its environment by ensuring the safety of personnel and the aircraft by communicating with ground staff prior to moving any aircraft control surfaces or operating any aircraft hydraulic or electrical systems; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making by noting any discrepancies and determining if the aircraft is airworthy and safe for flight, or takes the proper corrective action.



SECTION 1: DEPARTURE**1.4. Use of checklists prior to starting engines, starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies**

OBJECTIVE	To determine that the applicant is able to apply procedures according to AOH instructions for the checking of radio and navigation equipment, the selection and setting of navigation and communication frequencies, the starting of the aircraft engine(s) while demonstrating the correct use of the appropriate checklists prior to engine start.
SKILL	<p>To determine that the applicant demonstrates application of procedures for:</p> <ul style="list-style-type: none"> (a) the setting and checking of radio and navigation equipment; (b) the use of an auxiliary power unit (APU) or external power source (GPU and/or ASU); (c) starting under various atmospheric conditions, normal and abnormal starting limitations, and the actions required in the event of a malfunction; (d) ensuring that ground safety procedures are followed during the pre-start, start, and post-start phases; (e) ensuring the use of appropriate ground staff during the start procedures; (f) all the items of the start procedures by systematically following the approved briefing/checklist items for the pre-start, start, and post-start phases; (g) demonstrating sound judgement and operating practices in those circumstances where specific instructions or briefing/checklist items are not published.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the AOH related to:</p> <ul style="list-style-type: none"> (a) limitations; (b) normal operations; (c) abnormal operations.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness of the aircraft state in its environment by ensuring the safety of personnel and the aircraft through communication with ground staff prior to commencing engine start; — effective communication by checking that other crew members are briefed and at the same level of information as the PIC is; — leadership and teamwork; — effective workload management by managing interruptions, distractions, variations, and failures effectively; — effective problem-solving and decision-making.



SECTION 1: DEPARTURE**1.5. Taxiing in compliance with air traffic control or instructor instructions**

OBJECTIVE	To determine that the applicant is able to safely taxi/manoeuvre the aircraft on the ground and comply with the air traffic control instructions, airport markings and signals.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) obtaining and following the appropriate ATC clearance; (b) maintaining smooth, accurate, and positive aircraft control; (c) maintaining proper spacing on other aircraft, obstructions, and persons; (d) accomplishing the applicable briefing and checklist items.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related but not limited to:</p> <ul style="list-style-type: none"> (a) rules related to taxiing; (b) loss of communication; (c) airport or airfield marking and lighting: <ul style="list-style-type: none"> (1) runway hold lines, (2) localiser and glide slope critical areas, (3) beacons and other surface control markings and lighting; (d) operator policy relating to taxiing; (e) sterile cockpit concepts; (f) AOH chapters relating to: <ul style="list-style-type: none"> (1) limitations; (2) normal operations; (3) abnormal operations.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by dividing attention properly inside and outside the cockpit; — effective communication; — leadership and teamwork by applying correct crew coordination (when applicable); — effective workload management by maintaining constant vigilance and lookout during taxi operation. — effective problem-solving and decision-making.



SECTION 1: DEPARTURE**1.6. Pre-take-off checks**

OBJECTIVE	To determine that the applicant is able to perform pre-take-off procedures and actions.
SKILL	<p>To determine that the applicant demonstrates application of procedures by:</p> <ul style="list-style-type: none"> (a) performing all the items of the pre-take-off checklist; (b) ensuring that radios, instruments, and navigation aids are appropriately checked and set; (c) ensuring that all systems are within their normal operating range as required by the AOH; (d) ensuring that the aircraft is correctly configured for take-off; (e) ensuring that correct crew and passenger briefings are completed; (f) ensuring/confirming that passengers and crew are correctly secured for take-off; (g) obtaining appropriate take-off clearance using standard R/T phraseology; (h) completing the appropriate checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) airport or airfield markings and lightings; (b) sterile cockpit concepts; (c) operator policy relating to pre-take-off procedures; (d) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making by noting any adverse changes of conditions that may affect the aircraft take-off performance and recalculating performance or cancelling the take-off by considering factors such as but not limited to: <ul style="list-style-type: none"> • wind, • weight, • temperature, • runway conditions, etc.



SECTION 2: TAKE-OFFS**2.1. Normal take-offs with different flap settings, including expedited take-offs**

OBJECTIVE	To determine that the applicant is able to conduct normal take-offs using different flap settings (as appropriate to the aircraft), including expedited take-offs as appropriate.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) aligning the aircraft on the runway centre line; (b) maintaining longitudinal alignment on the centre line of the runway prior to initiating and during the take-off; (c) correctly setting take-off power; (d) monitoring engine controls, settings, and instruments during take-off to ensure that all predetermined parameters are maintained; (e) using the applicable noise-abatement, departure, and wake-turbulence avoidance procedures, as required; (f) attaining the desired pitch attitude at the predetermined airspeed to achieve the desired performance; (g) maintaining the appropriate climb attitude; (h) performing or calling for and verifying the accomplishment of landing gear and flap retractions, power adjustments, and other required pilot-related activities at the required airspeeds within the tolerances established in the AOH; (i) achieving the appropriate airspeeds and climb segment profiles.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS**2.2. Instrument take-off**

OBJECTIVE	To determine that the applicant is able to conduct an instrument take-off in instrument meteorological conditions (simulated or actual).
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1. by:</p> <ul style="list-style-type: none"> (a) setting the applicable radios/flight instruments to the desired setting prior to initiating the take-off; (b) transitioning smoothly and accurately from visual meteorological conditions to actual or simulated instrument meteorological conditions; (c) accomplishing the appropriate briefing/checklist items to ensure that the aeroplane systems applicable to the instrument take-off are operating properly; and (d) complying with ATC clearances and instructions issued by ATC (or the examiner simulating the ATC).
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS	
2.3. Crosswind take-off	
OBJECTIVE	To determine that the applicant is able to conduct a crosswind take-off.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1. by:</p> <ul style="list-style-type: none"> (a) setting the correct configuration for crosswind take-off and making suitable adjustments to airspeed as required; (b) applying the controls correctly for the crosswind condition; (c) transitioning smoothly and accurately from the runway into balanced, climbing flight and maintaining the runway centre line.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS**2.4. Take-off at maximum take-off mass (actual or simulated maximum take-off mass)**

OBJECTIVE	To determine that the applicant is able to conduct a take-off at maximum take-off mass.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1. by:</p> <ul style="list-style-type: none"> (a) determining maximum performance, configuration, power, and airspeeds in accordance with the AFM; (b) setting the correct configuration for maximum take-off mass and makes suitable adjustments to airspeed as required; (c) positioning and aligning the aeroplane for maximum utilisation of the available take-off area; (d) establishing 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; (e) establishing correct obstacle clearance track during climb.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication; — leadership and teamwork; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making.



SECTION 2: TAKE-OFFS**2.5.1. Take-offs with simulated engine failure: shortly after reaching V2**

OBJECTIVE	To determine that the applicant is able to safely conduct a take-off in the event the most critical engine fails shortly after reaching V2.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1. by:</p> <ul style="list-style-type: none"> (a) maintaining control of the aircraft following engine failure; (b) verifying the inoperative engine; (c) securing the inoperative engine, if appropriate; (d) monitoring the operating engine and making adjustments as necessary; (e) maintaining the aeroplane alignment with the heading appropriate for climb performance and terrain clearance when engine failure occurs; (f) adjusting the engine controls as outlined in the AOH; (g) demonstrating the proper procedure for any emergency/abnormal situation (as determined by the examiner) in the appropriate approved AOH; (h) completing the appropriate abnormal/emergency checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.



ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication by: <ul style="list-style-type: none"> • confirming fault diagnosis and reviewing causal factors (with other flight crew members in MPA); • confirming intended course of action (with other flight crew members in MPA); • ensuring that correct crew and passenger briefings are completed; — leadership and teamwork by: <ul style="list-style-type: none"> • involving other flight crew members in the option analysis (MPA); • considering and sharing the risks of alternative courses of action; • dividing attention properly inside and outside the cockpit; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • identifying alternative courses of action; • alerting ATC, if necessary, and obtains appropriate level of service.
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SECTION 2: TAKE-OFFS**2.5.2. Take-offs with simulated engine failure: between V1 and V2**

OBJECTIVE	To determine that the applicant is able to safely conduct a take-off in the event the most critical engine fails between V1 and V2.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 2.1. by:</p> <ul style="list-style-type: none"> (a) maintaining control of the aircraft following engine failure; (b) verifying the inoperative engine; (c) securing the inoperative engine, if appropriate; (d) monitoring the operating engine and making adjustments as necessary; (e) maintaining the aeroplane alignment with the heading appropriate for climb performance and terrain clearance when engine failure occurs; (f) adjusting the engine controls as outlined in the AOH; (g) following the proper procedure for any emergency/abnormal situation (as determined by the examiner) in the appropriate approved AOH; (h) completing the appropriate abnormal/emergency checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to take-off procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.



ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining constant vigilance and observation of conditions, obstructions or other hazards that might hinder a safe take-off; — effective communication by: <ul style="list-style-type: none"> • confirming fault diagnosis and reviewing causal factors (with other flight crew members in MPA); • confirming intended course of action (with other flight crew members in MPA); • ensuring that correct crew and passenger briefings are completed; — leadership and teamwork by: <ul style="list-style-type: none"> • involving other flight crew members in the option analysis (MPA); • considering and sharing the risks of alternative courses of action; • dividing attention properly inside and outside the cockpit; — effective workload management by effectively distributing and managing tasks; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • identifying alternative courses of action; • alerting ATC, if necessary, and obtains appropriate level of service.
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SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**Aeroplane control — General**

OBJECTIVE	To determine that the applicant demonstrates safe control of the aeroplane throughout the flight and during any manoeuvres required by the examiner.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) limiting the magnitude of control input; (b) maintaining a smoothness of control within the limitations of the airframe and control systems; (c) using correctly the cockpit checklists; (d) following the correct procedures for controlling the aircraft with automatic flight control systems, as appropriate.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • maintaining adequate lookout before, during, and after the execution of any manoeuvre by visual references; • maintaining orientation throughout the manoeuvres; — effective communication by demonstrating correct crew coordination as required by the type of operation (MPA); — leadership and teamwork, — effective workload management by: <ul style="list-style-type: none"> • managing and monitoring the engine(s) and other aeroplane systems; • dividing attention properly inside and outside the cockpit; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.1. Turns with and without spoilers**

OBJECTIVE	To determine that the applicant demonstrates safe control of the aeroplane during turns with and without spoilers.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) controlling the transition to the turning attitude through the proper use of instrument cross-checks and application of coordinated control; (b) turning onto specific visual references and headings by visual references (and solely by reference to instruments, where appropriate to the flight); (c) following the correct procedures for controlling the aircraft with/without automatic flight control systems, as appropriate; (d) following the appropriate SOP for the confirmation of intended heading (MPA); (e) establishing the configuration specified by the examiner; (f) maintaining the assigned altitude and airspeed throughout the turn.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining adequate lookout before, during, and after turning by visual references; — effective communication by liaising with other flight crew members for lookout (MPA); — leadership and teamwork; — effective workload management through effective orientation throughout the manoeuvre; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.2. Tuck under and Mach buffets after reaching the critical Mach number, and other specific flight characteristics of the aeroplane (e.g. Dutch roll)**

OBJECTIVE	<p>To determine that the applicant demonstrates 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).</p> <p>Note: An aeroplane should not be used for this exercise.</p>
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 3 'Aeroplane control — General' by:</p> <ul style="list-style-type: none"> (a) establishing the recommended configuration and airspeed/Mach, and maintaining that airspeed/Mach; (b) using the proper technique to enter into, operate within, and recover from specific flight situations; (c) recognising critically high airspeed; (d) establishing the recommended configuration and airspeed, and maintaining that airspeed; (e) controlling aeroplane smoothly within its limitations; (f) following the appropriate action in accordance with the Flight Manual.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • maintaining adequate lookout before, during, and after the execution of any manoeuvre by visual references; • dividing attention properly inside and outside the cockpit; — effective communication through effective flight crew coordination as required by the type of operation (MPA); — leadership and teamwork; — effective workload management by: <ul style="list-style-type: none"> • managing and monitoring the engine(s) and other aeroplane systems; • maintaining orientation throughout the manoeuvres; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.3. Normal operation of systems and controls engineer's panel**

OBJECTIVE	To determine that the applicant demonstrates adequate knowledge and application of procedures during normal operation of systems and controls engineer's panel.
SKILL	To determine that the applicant demonstrates application of procedures by: <ul style="list-style-type: none"> (a) demonstrating proper use of the aeroplane systems, subsystems, and devices (as may be determined by the examiner) appropriate to the aeroplane; (b) completing the appropriate checklist; (c) following the 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.
KNOWLEDGE	To determine that the applicant demonstrates knowledge related to: <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) performance.
ATTITUDE	To determine that the applicant demonstrates: <ul style="list-style-type: none"> — situation awareness; — effective communication by liaising with other flight crew members for the correct operation of the aircraft systems; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.0. Engine (propeller, if necessary)**

OBJECTIVE	See 3.3. and 3.6.
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SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.1. Pressurisation and air conditioning****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.2. Pitot/static system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.3. Fuel system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.4. Electrical system****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.5. Hydraulic system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.6. Flight control and trim system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.7. Anti-icing/de-icing system, glare-shield heating****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.8. Autopilot/flight director****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.9. Stall-warning devices or stall-avoidance devices, and stability-augmentation devices****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.10. Ground proximity warning system, weather radar, radio altimeter, transponder****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.11. Radios, navigation equipment, instruments, flight management system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.12. Landing gear and brake****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.13. Slat and flap system****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.4.14. Auxiliary power unit****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6. Abnormal and emergency procedures**

OBJECTIVE	To determine that the applicant demonstrates adequate knowledge and application of the procedures during abnormal and emergency procedures.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) maintaining control of the aeroplane and safe trajectory; (b) showing correct fault diagnosis; (c) confirming fault diagnosis; (d) applying the proper procedure for any abnormal/emergency situation (as determined by the examiner) in the appropriate approved AFM; (e) completing the appropriate abnormal/emergency checklist; (f) reviewing causal factors; (g) identifying alternative courses of action; (h) ensuring that correct crew and passenger briefings are completed; (i) alerting ATC, if necessary, and obtains appropriate level of service.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by dividing attention properly inside and outside the cockpit; — effective communication by considering and sharing the risks of alternative courses of action; — leadership and teamwork by involving other flight crew members in the option analysis; — effective workload management by maintaining adequate lookout before, during, and after the execution of any manoeuvre by visual references; — effective problem-solving and decision-making by confirming the intended course of action.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.1. Fire drills, e.g. engine, APU, cabin, cargo compartment, flight deck, wing, and electrical fires, including evacuation**

OBJECTIVE	To determine that the applicant demonstrates adequate knowledge and application of procedures related to fire drill.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) maintaining aeroplane control; (b) performing all the actions required by the fire drills; (c) demonstrating application of proper procedures in accordance with the approved procedure/briefing/checklist or the manufacturer's recommended procedures.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) fire detection and extinguishing systems; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by taking care of passenger/crew safety; — effective communication; — leadership and teamwork by identifying source of smoke/fire in a timely manner; — effective workload management; — effective problem-solving and decision-making by initiating emergency descent/diversion, if appropriate.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.1. Smoke control and removal**

OBJECTIVE	See 3.3. and 3.6.
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SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.2. Engine failure, shutdown, and restart at a safe height****OBJECTIVE**

See 3.3. and 3.6.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.3. Fuel dumping****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.5. Wind shear at take-off/landing**

OBJECTIVE	To determine that the applicant is able to accomplish the manoeuvres related to wind shear at take-off/landing.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) adjusting aeroplane configuration and speeds as appropriate; (b) performing all the procedures required for wind shear at take-off/landing and aeroplane control in a smooth, positive, and timely manner; (c) maintaining smooth and positive control within the aeroplane limitations; (d) demonstrating sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) operator policy relating to adverse weather; (c) wind shear detection systems; (d) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	See 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.6. Simulated cabin pressure failure/emergency descent**

OBJECTIVE	To determine that the applicant is able to accomplish the manoeuvres related to simulated cabin pressure failure/emergency descent.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) performing emergency descent in a smooth, positive, and timely manner without exceeding limitations; (b) demonstrating application of the proper procedures in accordance with the approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items; (c) demonstrating sound judgement and knowledge of the aeroplane manoeuvring capabilities throughout the procedure.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) air conditioning and pressurisation systems; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	See 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.7. Incapacitation of flight crew member**

OBJECTIVE	To determine that the applicant is able to manage incapacitation of a flight crew member.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3.6. by:</p> <ul style="list-style-type: none"> (a) maintaining aeroplane control in a smooth, positive, and timely manner; (b) performing all the procedures for incapacitation of flight crew member in accordance with the approved procedure/briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/checklist items.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) operator policy relating to abnormal and emergency procedures; (b) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by ensuring safety of flight crew members and clear of aeroplane controls; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making by identifying flight crew incapacitation in a timely manner.

SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.8. Other emergency procedures as outlined in the appropriate Aeroplane Flight Manual**

OBJECTIVE	See 3.3. and 3.6.
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SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.6.9. ACAS event****OBJECTIVE**

See 3.3. and 3.6.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.7. Steep turns with a 45-degree bank, 180 to 360 degrees left and right**

OBJECTIVE	To determine that the applicant is able to accomplish steep turns (if applicable to the aeroplane), and is aware of the factors associated with performance, wing loading, angle of bank, stall speed, pitch, power requirements, and over-banking tendencies.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) selecting a safe height as recommended by the manufacturer, training syllabus, or other training directive, or as agreed with the examiner; (b) establishing the recommended entry airspeed, in straight and level flight; (c) rolling into a coordinated turn of 360 degrees with a bank angle of not less than 45 degrees, and maintains the bank angle in a stable, balanced turn; (d) applying smooth, coordinated pitch, bank, and power adjustments to maintain the specified altitude, attitude, and airspeed; (e) avoiding any indication of an approaching stall, abnormal flight attitude, or exceeding any structural or operating limitation during any part of the manoeuvre; (f) rolling out of the turn, stabilises the aeroplane in straight and level flight or, at the discretion of the examiner, reverses the direction of turn and repeats the manoeuvre in the opposite direction; (g) recovering accurately onto the desired heading and at the desired airspeed for straight and level flight.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by maintaining adequate lookout before, during, and after turning by visual references; — effective communication by liaising with other flight crew members for lookout (MPA); — leadership and teamwork; — effective workload management by demonstrating orientation throughout the manoeuvre; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.8. Early recognition of and countermeasures to approaching stall (up to activation of stall-warning device) in take-off configuration (flaps in take-off position), in cruising flight configuration, and in landing configuration (flaps in landing position, landing gear extended)**

OBJECTIVE	To determine that the applicant demonstrates early recognition of and countermeasures to approaching stall.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3 'Aeroplane control — General' by:</p> <ul style="list-style-type: none"> (a) establishing the recommended configuration and airspeed, and maintains that airspeed; (b) following the appropriate action in accordance with the Flight Manual; (c) controlling the aeroplane smoothly within its limitations.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • ensuring that the aeroplane is in a safe area and clear of hazards prior to accomplishing an approach to a stall; • recognising critically high airspeed; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.8.1. Recovery from full stall or after activation of stall-warning device in climb, cruise, and approach configuration**

OBJECTIVE	To determine that the applicant performs safely a recovery from full stall or after activation of stall-warning device in climb, cruise, and approach configuration.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of the procedures outlined in Section 3 'Aeroplane control — General' by:</p> <ul style="list-style-type: none"> (a) configuring the aeroplane as required by the examiner from level flight, or descending, as if on an approach path; (b) recovering at the first indication of an impending stall, as appropriate to the aeroplane design, and initiates recovery or as otherwise directed by the examiner; (c) retracting landing gear and flaps as appropriate; (d) completing the appropriate briefing/checklist including go-around or post-take-off checks.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • ensuring that the aeroplane is in a safe area and clear of hazards prior to accomplishing an approach to a stall; • recognising critically high airspeed; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.1.* Adherence to departure and arrival routes, and to ATC instructions**

OBJECTIVE	To determine that the applicant is able to ensure adherence to departure and arrival routes, and to ATC instructions during instrument flight procedures.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) making correct use of the instruments, flight director, autopilot, navigation equipment, and communication equipment appropriate to the performance of the procedure; (b) intercepting, in a timely manner, all courses, radials, and bearings (QDM/QDR) appropriate to the procedure, route, ATC clearance, or as otherwise directed by the examiner; (c) establishing, where appropriate, a rate of descent consistent with the aeroplane operating characteristics and safety; (d) maintaining the appropriate airspeed, altitude, headings, and accurately tracks radials, courses, and bearing (QDM/QDRs); (e) using the current and appropriate navigation publications for the proposed flight; (f) accomplishing the aeroplane briefing/checklist items appropriate to the departure and arrival; (g) establishing communication with ATC using proper phraseology; (h) interpreting correctly the ATC clearance received and, when necessary, requests clarification, verification, or change; (i) complying, in a timely manner, with all ATC clearances, instructions, and restrictions; (j) adhering to airspeed restrictions and adjustments required by regulations, ATC, the Pilot Operating Manual, the AFM, and the examiner; (k) complying with the provisions of the descent profile, STAR, and other arrival procedures, as appropriate; (l) performing correct altimetry procedures in accordance with the relevant regulations, operational procedures, and ATC requirements; (m) completing the appropriate checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) R/T phraseology; (b) two-way communications failure procedures; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.



ATTITUDE	To determine that the applicant demonstrates:
	— situation awareness by taking into account aeroplane performance, obstacle clearance, etc.;
	— effective communication by ensuring that correct crew and passenger briefings are completed;
	— leadership and teamwork by liaising with other flight crew members for the correct operation of the aircraft systems during approach and landing;
	— effective workload management through effective orientation, division of attention, and proper planning;
	— effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.2.* Holding procedures**

OBJECTIVE	To determine that the applicant is able to accomplish holding procedures during instrument flight procedures.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 3.9.1. by:</p> <ul style="list-style-type: none"> (a) making changes to the recommended holding airspeed appropriate for the aeroplane and holding altitude, so as to cross the holding fix at or below the maximum holding airspeed; (b) using wind-drift correction techniques accurately to maintain the appropriate joining and holding pattern, and to establish and maintain the correct tracks and bearings; (c) maintaining the appropriate airspeed, altitude, and headings accurately to establish and maintain the correct tracks and bearings; (d) recognising arrival at the clearance limit or holding fix; (e) following the appropriate entry procedures in accordance with standard operational procedures or as required by ATC or the examiner; (f) complying with ATC reporting requirements; (g) using the correct timing criteria where required by the holding procedure, ATC, or the examiner's instructions; (h) making the appropriate adjustments to the procedure timing to allow for the effects of known wind; (i) making the appropriate adjustments in order to arrive over the holding fix as close as possible to the 'Expected Approach Time'.
KNOWLEDGE	To determine that the applicant demonstrates knowledge outlined in Section 3.9.1., and adequate knowledge of holding endurance including but not necessarily limited to fuel on board, fuel flow while holding, fuel required to alternate, etc.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by taking into account aeroplane performance, obstacle clearance, etc.; — effective communication by ensuring that correct crew and passenger briefings are completed; — leadership and teamwork by liaising with other flight crew members for the correct operation of the aircraft systems during approach and landing; — effective workload management through effective orientation, division of attention, and proper planning; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.3.* Precision approaches down to a decision height (DH) not less than 60 m (200 ft)****OBJECTIVE**

To determine that the applicant is able to accomplish precision approaches down to a decision height (DH) not less than 60 m (200 ft).



SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) selecting, tuning, identifying, and monitoring the operational status of ground and aeroplane navigation equipment used for the approach; (b) applying the necessary adjustments to the published approach minima criteria for the aeroplane approach category, and with due regard to: <ul style="list-style-type: none"> (1) NOTAMs, (2) inoperative navigation equipment, (3) inoperative visual aids associated with the landing environment, (4) reported weather conditions; (c) accomplishing the aeroplane briefing/checklist items appropriate to the phase of flight or approach segment, including engine-out approach and landing briefing/checklists; (d) following the published approach procedure in accordance with ATC instructions, or as otherwise directed by the examiner; (e) establishing a two-way communication with ATC using the proper communication phraseology and techniques; (f) copying correctly, in a timely manner, the ATC clearance as issued; (g) establishing the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions; (h) prior to beginning the final approach segment, maintaining the desired altitude, heading and airspeed, and accurately tracks radials, courses, and bearings in accordance with the approach procedure or as otherwise directed by ATC; (i) making appropriate adjustments to the procedure timing to allow for the effects of known wind; (j) intercepting and tracking the localiser within the prescribed limits; (k) establishing a predetermined rate of descent at the point where the electronic glide slope begins, in order to follow the glide slope, and maintains electronic glide slope within the prescribed limits; (l) demonstrating 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; (m) arriving at DA/DH in such a position that a landing, go-around or circling approach may be accomplished safely; (n) avoiding descent below DA/DH before initiating a missed approach procedure or transitioning to a landing; (o) initiating immediately the missed approach, when at DA/DH, if the required visual references for the runway are not unmistakably visible and identifiable; (p) maintaining localiser and glide slope during the visual descent from DA/DH to a point over the runway where glide slope must be abandoned to accomplish a normal landing; (q) transitioning 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.
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KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) R/T phraseology; (b) two-way communications failure procedures; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness through effective orientation throughout the manoeuvre; — effective communication through correct crew coordination as required by the type of operation; — leadership and teamwork by encouraging participation of other flight crew members in accordance with the approved SOP; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9. Instrument flight procedures****3.9.4.* Non-precision approach down to MDH/A**

OBJECTIVE	To determine that the applicant is able to accomplish a non-precision approach down to MDH/A.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation by:</p> <ul style="list-style-type: none"> (a) selecting, tuning, identifying, and monitoring the operational status of ground and aeroplane navigation equipment used for the approach; (b) applying the necessary adjustments to the published approach minima criteria for the aeroplane approach category, and with due regard to: <ul style="list-style-type: none"> (1) NOTAMs, (2) inoperative navigation equipment, (3) inoperative visual aids associated with the landing environment, (4) reported weather conditions; (c) accomplishing the aeroplane briefing/checklist items appropriate to the phase of flight or approach segment, including engine-out approach and landing briefing/checklists; (d) following the published approach procedure in accordance with ATC instructions, or as otherwise directed by the examiner; (e) establishing a two-way communication with ATC using the proper communication phraseology and techniques; (f) copying correctly, in a timely manner, the ATC clearance as issued; (g) establishing the appropriate aeroplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions; (h) prior to beginning the final approach segment, maintaining the desired altitude, heading and airspeed, and accurately tracks radials, courses, and bearings in accordance with the approach procedure or as otherwise directed by ATC; (i) making appropriate adjustments to the procedure timing to allow for the effects of known wind; (j) establishing a rate of descent that will ensure arrival at 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; (k) demonstrating 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; (l) executing the missed approach if the required visual references for the intended runway are not unmistakably visible and identifiable at the missed approach point; (m) transitioning 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.



KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) R/T phraseology; (b) two-way communications failure procedures; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness through effective orientation throughout the manoeuvre; — effective communication through correct crew coordination as required by the type of operation; — leadership and teamwork by encouraging participation of other flight crew members in accordance with the approved SOP; — effective workload management; — effective problem-solving and decision-making.



SECTION 3: FLIGHT MANOEUVRES AND PROCEDURES**3.9.5. Circling approach under the following conditions: (a)... (b)...**

OBJECTIVE	To determine that the applicant is able to accomplish a circling approach.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, application of procedures, and effective flight path management through proper use of the flight management system guidance and automation outlined in Section 3.9.3. or 3.9.4. by:</p> <ul style="list-style-type: none"> (a) using the appropriate aeroplane configuration for normal and abnormal situations and procedures; (b) manoeuvring 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 degrees from the final approach course, or according to the published procedure; (c) maintaining at least the published minimum circling level throughout the circling procedure until a position is reached from which a descent to a normal landing can be made; (d) maintaining visual contact with the landing threshold throughout the circling procedure; (e) performing the procedure without excessive manoeuvring and without exceeding the normal operating limits of the aeroplane (the angle of bank should not normally exceed 30 degrees); (f) confirming the direction of traffic, and adheres to all restrictions and instructions issued by ATC; (g) maintaining the correct circling pattern, and follows any prescribed tracks in accordance with the published procedure or as otherwise directed by ATC or the examiner; (h) turning in the appropriate direction when a missed approach is dictated during the circling approach, and uses the correct procedure and aeroplane configuration.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> (a) circling approach categories, speeds, and procedures; (b) aeroplane manoeuvring capabilities throughout the circling approach; (c) AOH relating to: <ul style="list-style-type: none"> (1) limitations, (2) normal operations, (3) abnormal operations, (4) performance.



ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none">— situation awareness:<ul style="list-style-type: none">• through effective orientation throughout the manoeuvre;• by noting any surface conditions, obstructions, adverse meteorological conditions or other hazards that might hinder a safe landing;• by maintaining adequate lookout for other aeroplanes;— effective communication through correct crew coordination as required by the type of operation;— leadership and teamwork by encouraging participation of other flight crew members in accordance with the approved SOP;— effective workload management by dividing attention properly inside and outside the cockpit;— effective problem-solving and decision-making.
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SECTION 4: MISSED APPROACH PROCEDURES	
4.1. Go-around with all engines operating* after an ILS approach on reaching decision height	
OBJECTIVE	To determine that the applicant is able to accomplish the go-around procedure with all engines operating* after an ILS approach on reaching decision height.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control, effective flight path management, and application of procedures by:</p> <ul style="list-style-type: none"> (a) initiating the go-around procedure promptly through the timely application of power, establishes the proper climb attitude, and reconfigures the aircraft in accordance with the approved procedures; (b) maintaining the desired altitudes, airspeed, and heading, and accurately tracks courses, radials, and bearings; (c) complying with the appropriate missed approach procedure or ATC clearance; (d) using FMS guidance and automation, where applicable; (e) accomplishing the appropriate checklist items in a timely manner in accordance with the approved procedures; (f) interpreting correctly the ATC clearance received and, when necessary, requests clarification, verification, or change; (g) requesting clearance, if appropriate, to the alternate aerodrome, another approach, a holding fix, or as otherwise directed by the examiner.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) flight procedures; (b) all-weather operations; (c) stabilised approach criteria; (d) visual references; (e) go-around all-engines pattern; (f) aeroplane limitations.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by managing the airspace environment, limitations and restrictions (for example: MSA, obstacle clearance); — effective communication by making appropriate crew notification when safe to do so; — leadership and teamwork; — effective workload management: <ul style="list-style-type: none"> • through effective fuel management; • by managing the correct operation of the aircraft systems; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • rejecting the landing for actual or simulated circumstances; • managing the flight to an alternate if needed.



SECTION 4: MISSED APPROACH PROCEDURES**4.2. Other missed approach procedures (see Section 4.1.)**

OBJECTIVE	To determine that the applicant is able to perform missed approach procedures in circumstances other than those referred to in Section 4.1.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) going around before reaching the missed approach point when applicable (NPA), and executes the appropriate missed approach procedure within the prescribed limits; (b) maintaining the missed approach track within the circling approach area until reaching a safe altitude or joining the original missed approach; (c) complying with non-standard go-around procedures (for example: go-around requiring small change of altitude or high-altitude go-around); (d) informing ATC of the specific circling missed approach track.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) circling approach procedures; (b) non-precision approach procedures; (c) non-standard go-around procedures; (d) airspace environment.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by managing the airspace environment, limitations and restrictions (for example: MSA, obstacle clearance); — effective communication by making appropriate crew notification when safe to do so; — leadership and teamwork; — effective workload management: <ul style="list-style-type: none"> • through effective fuel management; • by managing the correct operation of the aircraft systems; — effective problem-solving and decision-making by: <ul style="list-style-type: none"> • rejecting the landing for actual or simulated circumstances; • managing the flight to an alternate if needed.



SECTION 4: MISSED APPROACH PROCEDURES**4.3. Manual go-around with the critical engine simulated inoperative after an instrument approach on reaching DH, MDH or MAPt (see Sections 4.1. and 4.2.)**

OBJECTIVE	To determine that the applicant is able to perform a missed approach procedure with the critical engine simulated inoperative after an instrument approach on reaching DH, MDH or MAPt.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) applying the appropriate power setting for the flight condition, controls yaw, and establishes a pitch attitude necessary to obtain the desired performance; (b) establishing a positive rate of climb, and climbs at the appropriate airspeed to the correct acceleration altitude; (c) retracting the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence; (d) trimming the aeroplane as necessary, and maintains the proper ground track and altitudes during the rejected landing procedure; (e) accomplishing the appropriate briefing/checklist items in a timely manner in accordance with the approved procedures.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) engine-out performances; (d) engine-out patterns.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • monitoring engine-out landing capacity; • monitoring OEI performance, weather, obstacle clearance, etc.; — effective communication with flight crew members and ATC; — leadership and teamwork through effective flight crew coordination during the go-around and engine-out procedures; — effective workload management; — effective problem-solving and decision-making.



SECTION 4: MISSED APPROACH PROCEDURES**4.4. Rejected landing at 15 metres (50 feet) above the runway threshold and go-around (see Section 4.1. plus the items below)**

OBJECTIVE	To determine that the applicant demonstrates the ability to perform a rejected landing procedure.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) applying the appropriate power setting for the flight condition, and establishes a pitch attitude necessary to obtain the desired performance; (b) trimming the aeroplane as necessary, and maintains the proper ground track during the rejected landing procedure; (c) retracting the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, and establishes a positive rate of climb and the appropriate airspeed.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) supplementary procedures if available; (b) restrictions on pitch attitude; (c) procedure for landing gear and flap retraction.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by monitoring performance, weather, obstacle clearance, etc.; — effective communication with flight crew members and ATC; — leadership and teamwork through effective crew coordination during the go-around and engine-out procedures; — effective workload management; — effective problem-solving and decision-making.



SECTION 5: LANDINGS**5.1. Normal landings* also after an ILS approach with transition to visual flight on reaching DH**

OBJECTIVE	To determine that the applicant demonstrates the ability to perform normal landings, also after an ILS, with transition to visual flight on reaching DH.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) establishing the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required to maintain the correct approach path and airspeed; (b) maintaining a ground track which ensures that the desired traffic circuit will be flown, taking into account any obstructions and ATC or examiner requirements; (c) making proper correction for drift (using existing wind conditions), and maintains a precise ground track; (d) achieving and maintaining a stabilised approach; (e) considering wind conditions, landing surface, and obstructions, and selects the correct touchdown point; (f) accomplishing a smooth, positively controlled transition from final approach to touchdown; (g) performing a landing within the designated touchdown zone, at the correct speed, in the correct attitude, and on the runway centre line; (h) touching down with no side drift and with the aeroplane aligned with the runway centre line; (i) maintaining positive directional control throughout the landing roll; (j) using 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; (k) using correctly the aircraft systems during approach and landing; (l) interpreting the ATC clearance received and, when necessary, requesting clarification, verification or change; (m) ensuring or confirming that passengers and crew are correctly secured for take-off/landing; (n) completing the appropriate pre-landing checklist; (o) accomplishing the appropriate post-landing checklist items.



KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) Operations Manual/SOPs as applicable; (b) all-weather operations; (c) stabilised approach criteria; (d) visual references; (e) approach and landing patterns; (f) aircraft limitations and performance limitations; (g) airport markings and lightings; (h) recommended approach angles; (i) wake turbulence; (j) maximum speed for the use of high-speed turn-off.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by noting any surface conditions, obstructions, adverse meteorological conditions or other hazards that might hinder a safe landing; — effective communication by monitoring ATC instructions; — leadership and teamwork; — effective workload management by dividing attention properly inside and outside the cockpit, and maintaining adequate lookout for other aeroplanes; — effective problem-solving and decision-making by rejecting the landing for any safety reason.



SECTION 5: LANDINGS**5.2. Landing with simulated jammed horizontal stabiliser in any out-of-trim position (see Section 5.1. plus the items below)**

OBJECTIVE	To determine that the applicant is able to control the aircraft with jammed stabiliser in any out-of-trim position.
SKILL	<p>To determine that the applicant demonstrates aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) maintaining a stabilised approach at an appropriate approach speed, in accordance with the Pilot Operating Manual/AFM; (b) maintaining safe aeroplane control in a smooth, positive, and timely manner; (c) confirming fault diagnosis (with other flight crew members in MPA); (d) reviewing causal factors (with other flight crew members in MPA).
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) abnormal procedures; (b) jammed stabiliser patterns, if available; (c) ATC phraseology to obtain the appropriate clearance and advise ATC of any technical problem.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by: <ul style="list-style-type: none"> • making allowance for landing performance; • noting any surface conditions, obstructions, adverse meteorological conditions or other hazards that might hinder a safe landing; — effective communication with flight crew members and ATC; — leadership and teamwork through effective crew coordination during the landing; — effective workload management; — effective problem-solving and decision-making.



SECTION 5: LANDINGS**5.3. Crosswind landings (a/c, if practicable)**

OBJECTIVE	To determine that the applicant demonstrates the ability to perform normal landings with crosswind.
SKILL	To determine that the applicant demonstrates application of procedures by: (a) adjusting aeroplane configuration and speeds as appropriate; (b) performing all procedures required for crosswind landing and aeroplane control in a smooth, positive, and timely manner.
KNOWLEDGE	To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to: (a) landing technique; (b) hazardous atmospheric conditions; (c) aircraft crosswind limitation.
ATTITUDE	To determine that the applicant demonstrates: — situation awareness with regard to aircraft flight path; — effective communication with crew and ATC by taking into account the crosswind condition and its effect on aircraft stability; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.



SECTION 5: LANDINGS	
5.4. Traffic pattern and landing without extended or with partly extended flaps and slats	
OBJECTIVE	To determine that the applicant is able to accomplish the traffic pattern and landing without extended or with partly extended flaps and slats.
SKILL	<p>To determine that the applicant demonstrates aircraft control and application of procedures by:</p> <ul style="list-style-type: none"> (a) maintaining the appropriate pitch attitude, speeds, and flight path for the configuration, gross weight, surface winds and other applicable operational considerations; (b) performing all procedures required for landing without flaps or with partly extended flaps and slats, and controls the aeroplane in a smooth, positive, and timely manner; (c) correcting utilisation of all available drag and braking devices after landing to bring the aircraft to a safe stop.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) flaps/slats abnormal configuration patterns, if available.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness by managing the airspace environment, limitations and restrictions (for example: MSA, obstacle clearance); — effective communication; — leadership and teamwork; — effective workload management by establishing timely the appropriate landing configuration and speeds as applicable; — effective problem-solving and decision-making by choosing a suitable landing airport taking into account the go-around and landing performance.



SECTION 5: LANDINGS	
5.5. Landing with critical engine simulated inoperative	
OBJECTIVE	To determine that the applicant is able to perform a safe landing with the critical engine simulated inoperative.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control by:</p> <ul style="list-style-type: none"> (a) establishing the approach and landing configuration appropriate for the runway and weather conditions, and adjusts the engine controls as required; (b) maintaining a stabilised approach and the desired airspeed; (c) maintaining the operating engine(s) within the acceptable operating limits; (d) accomplishing a smooth, positively controlled transition from final approach to touchdown; (e) correcting utilisation of all available drag and braking devices after landing to bring the aircraft to a safe stop; (f) maintaining positive directional control and crosswind corrections during post-landing roll.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) engine inoperative profile as applicable; (d) engine inoperative go-around and landing performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness; — effective communication with crew and ATC taking into account the one-engine-inoperative condition; — leadership and teamwork; — effective workload management by establishing appropriate landing configuration, profile, and speeds as applicable; — effective problem-solving and decision-making.



SECTION 5: LANDINGS**5.6. Landing with two engines inoperative:**

- aeroplanes with three engines: the centre engine and one outboard engine as far as practicable according to AFM data;
- aeroplanes with four engines: two engines at one side (see Sections 5.1., 5.2. and 5.5.)

OBJECTIVE	To determine that the applicant is able to perform a safe landing with two engines inoperative.
SKILL	<p>To determine that the applicant demonstrates manual aircraft control by:</p> <ul style="list-style-type: none"> (a) establishing the approach and landing configuration appropriate for the runway and weather conditions, and adjusts the engine(s) controls as required; (b) maintaining a stabilised approach and the desired airspeed; (c) maintaining the operating engine(s) within the acceptable operating limits; (d) accomplishing a smooth, positively controlled transition from final approach to touchdown; (e) correcting utilisation of all available drag and braking devices after landing to bring the aircraft to a safe stop; (f) maintaining positive directional control and crosswind corrections during post-landing roll.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the operator policy relating but not limited to:</p> <ul style="list-style-type: none"> (a) systems limitations; (b) abnormal procedures; (c) two-engine-inoperative profile as applicable; (d) two-engine-inoperative go-around and landing performance.
ATTITUDE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — situation awareness; — effective communication with crew and ATC taking into account the one-engine-inoperative condition; — leadership and teamwork; — effective workload management by establishing appropriate landing configuration, profile, and speeds as applicable; — effective problem-solving and decision-making.



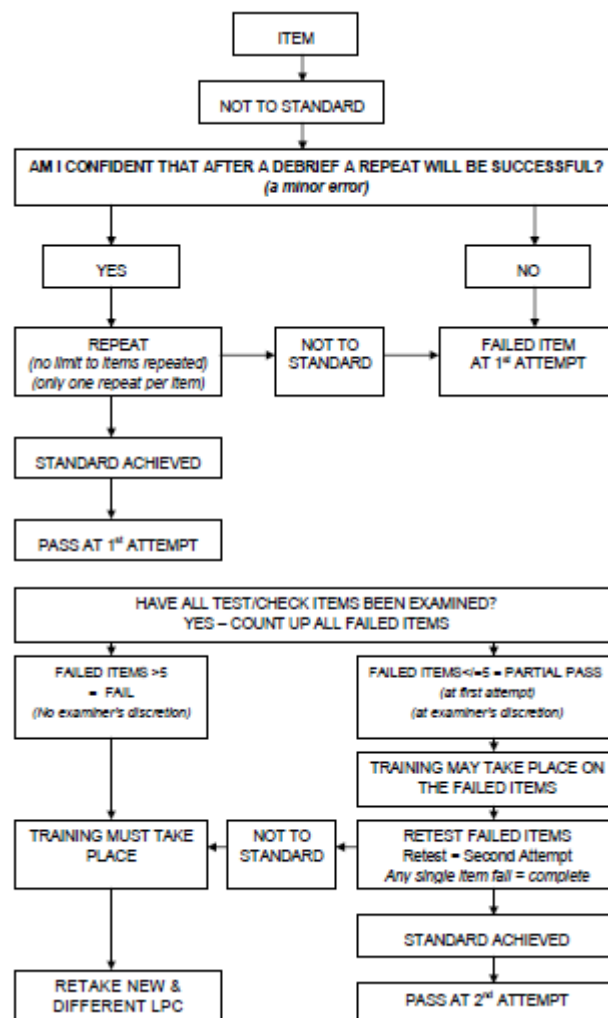
2.5.5. Pass/fail criteria

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 in more than five items will require the applicant to take the entire test or check again. Any applicant failing in five or less items shall take the failed items again.

Failure in any item of the retest or recheck, 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 in 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 Section 6 on the appropriate type of aircraft.



2.6. Chapter 6 — Instrument Rating (IR) skill test (Appendix 7 to Part-FCL)

2.6.1. Introduction

Module 2 deals with the conduct of tests for the initial issue of single-pilot, single-engine and multi-engine aeroplane Instrument Ratings; this Module should be read in conjunction with Module 1.

Instrument Rating revalidation or renewal proficiency checks should be completed in accordance with either:

- (a) Module 9 for multi-pilot and single-pilot high-performance complex aircraft types, or
- (b) Module 8 for other single-pilot aeroplane classes/types.

2.6.2. Who may test — see the common requirements table

A suitably qualified IRE designated by the competent authority of the applicant.

An IRE(A) may test if:

- 2.6.2.1. the applicant's licence has been issued by the same competent authority as the examiner's; or
- 2.6.2.2. in the case of an applicant for which the competent authority is not the same one that issued the examiner certificate, the examiner shall have reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

2.6.3. Conduct of the test

1. An applicant for an IR shall have received instructions on the same class or type of aircraft to be used for the test.
2. An applicant for the initial issue of an IR shall pass all the relevant sections of the skill test. 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 again. An applicant failing only in one section shall only repeat the failed section. Failure in any section of the retest, including those sections that have been passed at a previous attempt, will require the applicant to take the entire test again. All relevant sections of the skill test shall be completed within 6 months. Failure to achieve a pass in all relevant sections of the test at two attempts will require further training.
3. Further training may be required following a failed skill test. There is no limit to the number of skill tests that may be attempted.
4. The test is intended to simulate a practical flight. The route to be flown shall be chosen by the examiner. An essential element is the ability of the applicant to plan and conduct the flight from routine briefing material. The applicant shall undertake the flight planning and shall ensure that all equipment and documentation for the execution of the flight are on board. The duration of the flight shall be at least 1 hour.
5. Should the applicant choose to terminate a skill test for reasons considered inadequate by the examiner, the applicant shall retake the entire skill test. If the test



is terminated for reasons considered adequate by the examiner, only those sections not completed shall be tested in a further flight.

6. 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 demonstration of flying skills requires a complete retest.
7. An applicant shall fly the aircraft from a position where the PIC functions can be performed and to carry out the test as if there no other flight crew member was present. The examiner shall take no part in the operation of the aircraft, except when intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic. Responsibility for the flight shall be allocated in accordance with national regulations.
8. Decision heights/altitudes, minimum descent heights/altitudes, and missed approach point shall be determined by the applicant and agreed by the examiner.
9. An applicant for an IR shall indicate to the examiner the checks and duties carried out, including the identification of radio facilities. Checks shall be completed in accordance with the authorised checklist for the aircraft on which the test is being taken. During pre-flight preparation for the test, the applicant is required to determine power settings and speeds. Performance data for take-off, approach, and landing shall be calculated by the applicant in compliance with the Operations Manual or Flight Manual for the aircraft used.

2.6.4. Flight test tolerances

The following limits shall apply, corrected to make allowance for turbulent conditions and the handling qualities and performance of the aircraft used.

Height:

- Generally: ± 100 feet
- Starting a go-around at decision height/altitude: $+ 50$ feet/ $- 0$ feet
- Minimum descent height/MAP/altitude: $+ 50$ feet/ $- 0$ feet

Tracking:

- On radio aids: ± 5 degrees
- Precision approach: half scale deflection, azimuth, and glide path

Heading:

- All engines operating: ± 5 degrees
- With simulated engine failure: ± 10 degrees

Speed:

- All engines operating: ± 5 knots
- With simulated engine failure: $+ 10$ knots/ $- 5$ knots



2.6.5. Content of the test

Detailed test standards

This part of the module gives guidance to the examiner on how to assess a candidate for a single-pilot IR(A).

Each section of the test (Sections 1 to 6) are described in text followed by a table which gives guidance to the examiner on how to assess each item of the test by using the key competencies model of:

Objective (of the test item), and **Skill, Knowledge,** and **Attitude** (to achieve the objective).

Examiners must remember that this guidance is designed to standardise the conduct of tests and is not exhaustive or specific to any aircraft or test scenario. Examiners must always be prepared to use their discretion to ensure a fair and relevant scenario is presented to the candidate for the test.



Sample table

The table is separated into four rows as follows:

PHASE OF TEST OR CHECK	
Title of assessed item taken from the Part-FCL schedule	
OBJECTIVE	This cell describes the applicant's proficiency to be assessed by the examiner.
SKILL	<p>This cell describes the competency criteria which the applicant is required to demonstrate:</p> <ul style="list-style-type: none"> — manual aircraft control; — effective flight path management through proper use of the flight management system guidance and automation; — application of procedures.
KNOWLEDGE	This cell describes the knowledge needed to meet the objective's proficiency requirements.
ATTITUDE	<p>This cell describes the competency criteria encapsulated in airmanship, CRM, and threat and error management, such as:</p> <ul style="list-style-type: none"> — situation awareness; — effective communication; — leadership and teamwork; — effective workload management; — effective problem-solving and decision-making.
General	
<p>In most phases of the flight there are competencies that apply to a group of manoeuvres, e.g. turns, or even to 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 to 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 at the end of the group identify the group.</p>	



SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE****(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****a. Use of flight manual (or equivalent) especially a/c performance calculation, mass and balance**

OBJECTIVE	<p>To determine that the applicant is proficient in:</p> <ul style="list-style-type: none"> — the use of the Flight Manual (or equivalent); — the mass-and-balance schedule; — the performance calculation.
SKILL	<p>To determine that the applicant uses proficiently performance charts, tables, graphs, or other data relating to items such as:</p> <ul style="list-style-type: none"> — accelerate-stop distance; — accelerate-go distance; — take-off performance — all engines; — one engine inoperative; — climb performance, including climb performance with all engines operating, with one engine inoperative, and with other engine malfunctions as may be appropriate; — cruise performance; — fuel consumption, range, and endurance; — go-around from rejected landings; — operational factors affecting aircraft performance; — other performance data appropriate to the test aircraft; — airspeeds used during specific phases of flight; — effects of meteorological conditions upon performance characteristics, and correct application of these factors to a specific chart, table, graph or other performance data; — impact of relevant NOTAMs on the conduct of the flight; — aircraft documentation.
KNOWLEDGE	<p>To determine that the applicant demonstrates adequate knowledge of:</p> <ul style="list-style-type: none"> — the adverse effects of exceeding any limitation; — the Pilot Operating Manual (POM) or Flight Manual chapters dedicated to: <ul style="list-style-type: none"> • limitations; • performance calculation in general; • performance calculation and associated procedures when specific conditions exist.



ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: understands the responsibilities of proper pre-departure planning and preparations. — Effective communication: ensures appropriate and clear communication with all ground service staff (ATC, dispatch, MET). — Leadership and teamwork: management of crew, passengers, and ground staff as applicable). — Effective workload management: provides sufficient time, and manages the workload for departure procedures (including documentation) to be completed in an efficient manner. — Effective problem-solving and decision-making: makes appropriate decisions on all identified threats, and plans and implements suitable mitigation actions.
<p align="center">SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE</p> <p align="center">(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)</p>	
<p>b. Use of Air Traffic Services document, weather document</p>	
OBJECTIVE	To determine that the applicant uses the correct documents including maps, charts, and approach procedure plates to prepare flight plan and flight log, and collates and interprets the weather documents to determine the route weather.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — ensures that all required paperwork is correctly completed prior to the flight; — interprets weather charts and coded messages (TAF, METAR, etc.).
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — weather factors that may affect the safe conduct of the flight (thunderstorms, fog, strong winds, gust factor, crosswinds at departure and destination aerodromes, snow, icing, etc.); — the type of approach to be flown, how to calculate approach minima from charts, operational limitations of ground-based aids when planning route, ability to interpret SID and STAR charts; — the coordination with ATC when submitting flight plan, implications of 'calculated take-off time', etc.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: notes potential weather hazards and acts accordingly, submits flight plan timely for the planned departure. — Effective communication: communicates with ATC and ground staff to ensure timely start. — Leadership and teamwork: demonstrates correct crew coordination (where applicable). — Effective workload management: prioritises tasks to produce a safe and effective plan for the conduct of the flight. — Effective problem-solving and decision-making: identifies possible defects and threats, and takes corrective action.

SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****c. Preparation of ATC flight plan, IFR flight plan/log**

OBJECTIVE	To determine that the applicant demonstrates preparation of the ATC IFR flight plan for the route, including any off-airways sectors, and preparation of a full navigation and RTF flight log.
SKILL	<p>To determine that the applicant is able to:</p> <ul style="list-style-type: none"> — prepare the flight navigation log, and update maps and charts, flight plan, and fuel plan; — obtain and assess all the elements of the prevailing and forecast weather conditions for the route; — complete an appropriate flight navigation log; — complete the required ATC flight plan(s) and ensure that all required airfields are addressed; — determine that the aeroplane is correctly fuelled, loaded, and legal for the flight; — confirm any aeroplane performance criteria and limitations applicable in relation to runway and weather conditions.
KNOWLEDGE	<p>To determine that the applicant demonstrates sufficient knowledge of:</p> <ul style="list-style-type: none"> — the regulatory requirements relating to instrument flight; — how to complete a RAIM check where appropriate.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: understands the responsibilities of proper pre-departure planning and preparations. — Effective communication: ensures appropriate and clear communication with all ground service staff (ATC, dispatch, MET). — Leadership and teamwork. — Effective workload management: provides sufficient time and manages the workload for departure procedures (including documentation) to be completed in an efficient manner. — Effective problem-solving and decision-making: makes appropriate decisions on all identified threats, and plans and implements suitable mitigation actions.



SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****d. Pre-flight inspection**

OBJECTIVE	To determine that the applicant performs full initial pre-flight inspection in accordance with the approved checklist assuming the risk of 'icing conditions'.
SKILL	<p>To determine that the applicant is able to:</p> <ul style="list-style-type: none"> — perform all the elements of the aeroplane pre-flight inspections as detailed and applicable to the actual or simulated weather conditions; — confirms that the aeroplane is in a serviceable and safe condition for flight.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of the following:</p> <ul style="list-style-type: none"> — confirms that any planned RNAV routes are programmed, and that the desired RNAV approaches are correctly installed.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • notes the position of the aircraft, any surrounding hazards, and the location of emergency equipment; • is aware of the effects of engine start on the surrounding environment. — Effective communication: <ul style="list-style-type: none"> • demonstrates correct crew communication (where applicable); • makes correct passenger and departure briefing. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • confirms from the checklist that all pre-flight requirements have been addressed; • demonstrates an organised approach to performing the inspection of aircraft and equipment. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • identifies possible defects and threats; • takes corrective action.



SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****e. Weather minima**

OBJECTIVE	To determine that the applicant confirms weather affecting the departure, route, destination and diversion, as well as acceptability for the flight, and determines the expected instrument approach minimum heights/altitudes.
SKILL	To determine that the applicant demonstrates the ability to interpret published weather charts, such as synoptic charts and coded messages (TAF, METAR, SNOWTAM, etc.).
KNOWLEDGE	To determine that the applicant demonstrates knowledge relating to: <ul style="list-style-type: none"> — air masses and local weather effects; — weather codes.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • is able to interpret and understand the weather factors and all the associated potential hazards likely to affect the proposed flight; • assesses correctly if the weather minima required at destination and diversion airfields are satisfactory for the conduct of the flight. — Effective communication: <ul style="list-style-type: none"> • as applicable to a specific situation. — Leadership and teamwork: <ul style="list-style-type: none"> • as applicable to a specific situation. — Effective workload management: <ul style="list-style-type: none"> • as applicable to a specific situation. — Effective problem-solving and decision-making <ul style="list-style-type: none"> • makes appropriate decisions based on available weather information.



SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****f. Taxiing**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — performs all recommended taxiing checks and procedures; — demonstrates compliance with ATC instructions, and airport markings and signals.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — obtains appropriate clearance before taxiing and before crossing/entering active runways; — complies with the instructions issued by ATC; — maintains correct and positive aircraft control; — considers and correctly applies consideration to environmental conditions (e.g. surface wind, contamination, surface condition, etc.); — maintains proper spacing on other aircraft, obstructions, and persons; — accomplishes the applicable briefing/checklist items and performs the recommended procedures.
KNOWLEDGE	<p>To determine that the applicant demonstrates the required technical knowledge and understanding of the need to correctly perform the taxi checks, and an understanding of the following:</p> <ul style="list-style-type: none"> — runway hold lines and stop-bar lighting as applicable; — localiser and glide slope critical areas; — beacons, and other surface control markings and lighting; — taxi speeds; — rules and procedures in the event of loss of communication (priority, lighting signals); — rules for manoeuvring in reduced meteorological conditions.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • maintains constant vigilance and lookout during taxi operation; • uses headings in poor-visibility conditions to confirm the path; • maintains awareness of taxi speeds appropriate to the conditions and limitations. — Effective communication: <ul style="list-style-type: none"> • demonstrates correct crew and ATC communication (where applicable). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • divides attention properly inside and outside the cockpit. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • stops the aircraft to check position when in doubt. — Assessment of major risks: <ul style="list-style-type: none"> • collision with other aircraft, obstacles, and aircraft security.



SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****g. Pre-take-off briefing, take-off**

OBJECTIVE	<p>To determine that the applicant performs a safe take-off in compliance with the ATC clearance and within the Flight Manual limits taking into account environmental conditions.</p> <p>Obtaining ATC departure clearance, flight deck preparation, confirmation of departure and passenger emergency briefing. Actions to be taken with regard to the aeroplane if an emergency occurs during departure should be covered in the pre-flight main briefing.</p>
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — obtains appropriate take-off clearance using standard R/T phraseology; — performs all required pre-take-off checks (including visual scanning for other aircraft); — positions the aircraft correctly for take-off taking into account any crosswind condition; — applies the controls correctly to maintain longitudinal alignment on the centre line of the runway prior to initiating and during the take-off; — sets the throttle(s) to take-off power with appropriate checks (e.g. verify the expected engine performance, monitor engine controls, settings, and instruments during take-off to ensure that all predetermined parameters are maintained); — uses the correct take-off technique by applying the recommended speeds for rotation, lift-off, and initial climb; — adjusts the controls to attain the desired pitch attitude at the predetermined airspeed to obtain the desired performance; — ensures a safe climb and departure in accordance with ATC clearance and with due regard to other air traffic, noise-abatement, and wake-turbulence avoidance procedures, adjusts power and aircraft configuration, and maintains desired path (or heading) as appropriate; — completes all necessary post-take-off checks; — performs or calls for and verifies the accomplishment of landing gear and flap retractions, power adjustments, and other required pilot-related activities at the required airspeeds within the tolerances established in the Pilot Operating Manual or AFM.
KNOWLEDGE	<p>To determine that the applicant demonstrate knowledge of the Pilot Operating Manual or Flight Manual chapters dedicated to:</p> <ul style="list-style-type: none"> — limitations; — normal procedures (understands different techniques dependent on varying flap settings and environmental conditions); — abnormal and emergency procedures; — performance; — applicable rules dedicated to wake turbulence separation.



ATTITUDE	<ul style="list-style-type: none">— Situation awareness:<ul style="list-style-type: none">• monitors engine parameters for any deviations;• monitors aircraft acceleration during take-off;• monitors aircraft ground and flight path at all stages of the take-off procedure.— Effective communication:<ul style="list-style-type: none">• demonstrates effective flight crew communication (as applicable).— Leadership and teamwork:<ul style="list-style-type: none">• demonstrates effective flight crew coordination (as applicable).— Effective problem-solving and decision-making:<ul style="list-style-type: none">• assesses correctly take-off and climb hazards, particularly those related to other aircraft, aerodrome infrastructure, obstacles, and weather, and has a strategy to mitigate the threats.
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SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****h. Transition to instrument flight****(Must be performed by sole reference to instruments)**

OBJECTIVE	To determine that the applicant is able to establish the climb, complete a smooth transition to instrument flight, and complete the post-take-off checks and drills.
SKILL	<p>To determine that by following the initial take-off procedure, the applicant:</p> <ul style="list-style-type: none"> — compares the visual attitude achieved with the attitude indicator display; — assesses performance instrument information to confirm that aircraft has achieved the desired climb parameters; — commences appropriate instrument scanning techniques.
KNOWLEDGE	<p>To determine that the applicant demonstrates the required technical knowledge of the function of the instruments in order to safely fly the aircraft by sole reference to instruments, and understands the need to:</p> <ul style="list-style-type: none"> — compare the AI with the real world; — verify that the expected performance is being achieved.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • monitors the aircraft flight path at all stages of the transition to instrument flight. — Effective communication: <ul style="list-style-type: none"> • demonstrates effective flight crew communication (as applicable). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates effective flight crew coordination (as applicable). — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • assesses correctly take-off and climb hazards, particularly those related to other aircraft, aerodrome infrastructure, obstacles, and weather, and has a strategy to mitigate the threats.



SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****i. Instrument departure procedures, altimeter-setting****(Must be performed by sole reference to instruments)**

OBJECTIVE	To determine that the applicant completes the Standard Instrument Departure (SID) procedure or follows the ATC departure instructions to join controlled airspace; uses the correct altimeter-setting procedure; and maintains aeroplane control, speed, heading, and level.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — identifies any navigation aids used; — follows any noise routing or departure procedures and ATC clearances; — takes appropriate anti-icing/de-icing actions; — uses the current and appropriate navigation publications for the proposed departure; — makes correct use of the instruments, flight director, autopilot, navigation equipment and communication equipment appropriate to the performance of the departure; — intercepts, in a timely manner, all courses, radials, and bearings (QDM/QDR) appropriate to the departure route, ATC clearance, or as otherwise directed by the examiner; — complies, in a timely manner, with all ATC clearances, instructions, and restrictions; — accomplishes the aircraft briefing/checklist items appropriate to the departure; — adheres to airspeed restrictions and adjustments required by regulations, ATC, the Pilot Operating Manual, the AFM, and the examiner; — maintains the appropriate airspeed, altitude, and headings, and accurately tracks radials, courses, and bearing (QDM/QDR); — completes the appropriate checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge and understanding of:</p> <ul style="list-style-type: none"> — weather phenomena, particularly of the conditions favourable to the formation of ice on the airframe and engines; — limitations on the use of ground-based navigational aids; — limitations on the use of GNSS-derived navigational information; — division of airspace and altimeter-setting procedures associated with the current airspace environment; — the departure procedure in use and the safety implications of not adhering to the procedure; — altimetry procedures in accordance with the relevant regulations.



ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • understands any clearance limits or variations to SID/initial departure clearance instructed by ATC; • demonstrates awareness of the aircraft performance and the ability to conform to ATC clearances (speed, height, time limits, etc.). — Effective communication: <ul style="list-style-type: none"> • demonstrates correct crew and ATC communication (where applicable). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable); — Effective workload management: <ul style="list-style-type: none"> • divides attention properly between aircraft control, navigation, and communication tasks. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • makes the necessary decisions to mitigate the effect of changing conditions that may affect the aircraft (weather, navigation aid serviceability, ATC, etc.).
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SECTION 1: PRE-FLIGHT OPERATIONS AND DEPARTURE**(Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply to all sections)****j. ATC liaison — Compliance, R/T procedures****(Must be performed by sole reference to instruments)**

OBJECTIVE	To determine that the applicant demonstrates the ability to communicate clearly with ATC using appropriate R/T phraseology in order to achieve the flight as planned in compliance with ATC instructions. In the event of changes to the plan, such changes should be negotiated with ATC to ensure continued compliance.
SKILL	To determine that the applicant demonstrates: <ul style="list-style-type: none"> — English language proficiency level 4 or greater; — the ability to use standard and, where applicable, non-standard R/T procedures; — understanding of the implications of the received clearance and is able to act both safely and effectively; — interpretation of charts and maps.
KNOWLEDGE	To determine that the applicant demonstrates the required knowledge and understanding of: <ul style="list-style-type: none"> — the specific ATC phrases, e.g. ETA versus EAT; — the aircraft category for instrument approaches; — the performance of the aircraft and its ability to meet the ATC clearance; — standard ICAO phraseology and national differences; — pilot-controller responsibilities including tower, en route control, and appropriate clearances; — adequate knowledge of R/T failure procedures.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communications with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • copies correctly, in a timely manner, the ATC clearance as issued. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change.



SECTION 2: GENERAL HANDLING

SECTION 2: GENERAL HANDLING	
(Must be performed by sole reference to instruments)	
a. Control of the aeroplane by reference solely to instruments, including: level flight at various speeds, trim	
OBJECTIVE	To determine that the applicant demonstrates smooth control of heading, altitude, speed, power, trim, and ancillary controls; correct use of autopilot, where appropriate; correct technique for instrument flight manoeuvring within the specified limits; and maintains balanced and trimmed flight.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — maintains altitude, heading, and balance by sole reference to instruments by using correct instrument confirmation and coordinated control application; — maintains altitude, heading, and balance whilst accelerating/decelerating to specific speeds, as determined by the Aircraft Flight Manual, or as specified by the examiner; — demonstrates correct procedure for pre-flight functional check of autopilot and/or flight director; — demonstrates correct operating procedure for autopilot and/or flight director in all modes.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> — the procedures for controlling the aircraft in accordance with the Pilot Operating Manual/AFM and the Operations Manual, as appropriate; — the autopilot system fitted to the aircraft; — the procedures for controlling the aircraft with automatic flight control systems, in accordance with the Pilot Operating Manual/AFM and the Operations Manual, as appropriate.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • maintains awareness of the autopilot modes selected, where applicable; • understands the need for trimmed, in balance flight when manually flying the aircraft manually. — Effective communication: <ul style="list-style-type: none"> • as applicable to a specific situation. — Leadership and teamwork: <ul style="list-style-type: none"> • as applicable to a specific situation. — Effective workload management: <ul style="list-style-type: none"> • uses an appropriate 'division of attention' when completing flight log, etc., whilst manually controlling the aircraft. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • prioritises activities to allow maintenance of correct instrument scan.



SECTION 2: GENERAL HANDLING**(Must be performed by sole reference to instruments)****b. Climbing and descending turns with sustained Rate-1 turn**

OBJECTIVE	<p>To determine that the applicant is able to complete a coordinated climb/descent and turn at Rate 1 using:</p> <ul style="list-style-type: none"> — the recommended climbing speed; or — the descent speed and nominated rates of descent for the aircraft.
SKILL	<p>To determine that the applicant is able to:</p> <ul style="list-style-type: none"> — establish the recommended entry airspeed in straight and level flight; — roll into a coordinated climbing/descending turn with a bank angle commensurate with the speed to produce a Rate-1 turn, and maintains the bank angle in a stable, balanced turn; — apply smooth, coordinated pitch, bank, and power adjustments to maintain the specified attitude and airspeed; — avoid any indication of an approaching stall, abnormal flight attitude, or exceeding any structural or operating limitation during any part of the manoeuvre; — roll out of the turn and stabilise the aircraft in straight and level flight; — recover accurately onto the desired heading and at the desired airspeed for straight and level flight.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge related to:</p> <ul style="list-style-type: none"> — speed and bank angle relationship to establish a Rate-1 turn; — recommended climb speed and power settings; — recommended speed and power settings for descent at nominated descent rates.
ATTITUDE	<ul style="list-style-type: none"> — Effective workload management: <ul style="list-style-type: none"> • demonstrates orientation throughout the manoeuvre. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to departure from stabilised steep-turn attitude.



SECTION 2: GENERAL HANDLING	
(Must be performed by sole reference to instruments)	
c. Recoveries from unusual attitudes, including sustained 45-degree bank turns and steep descending turns	
OBJECTIVE	To determine that the applicant is able to recover from unusual attitudes including sustained 45-degree bank turns and steep descending turns using the correct technique to minimise height loss.
SKILL	To determine that the applicant is able to: <ul style="list-style-type: none"> — interpret instrument displays in order to identify the unusual attitude; — apply the correct recovery technique.
KNOWLEDGE	To determine that the applicant demonstrates knowledge related to: <ul style="list-style-type: none"> — the correct recovery technique using 'full' panel instruments with minimum height loss/gain, as appropriate.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • recognition of unusual attitude; • after recovery: why did the aircraft enter the unusual attitude, e.g. due to distraction, instrument failure, mishandling, hypoxia? • after recovery: is the aircraft above safety altitude? • which is a safe direction to fly whilst assessing the situation? — Effective workload management: <ul style="list-style-type: none"> • address the situation to recover situational awareness. — Effective communication: <ul style="list-style-type: none"> • advises other flight crew members of the situation; • advises ATC, if appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • communicates and coordinates with other flight crew members, as appropriate, during the recovery manoeuvre (MPA). — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts promptly to departure from controlled flight.



SECTION 2: GENERAL HANDLING**(Must be performed by sole reference to instruments)****d. Recovery from approach to stall in level flight, climbing/descending turns, and in landing configuration — only applicable to aeroplanes****(May be performed in an FFS, FTD 2/3, or FNPT II)**

OBJECTIVE	<p>To determine that the applicant demonstrates the ability to conduct appropriate safety checks before stalling by:</p> <ul style="list-style-type: none"> — establishing the required aircraft configuration and stall entry, as appropriate, from straight and level or manoeuvring flight; — maintaining heading (or 10–30-degree bank angle, as required) to stall entry; — recognising the symptoms of stall or approaching stall, and initiates the correct recovery action; — recovering by using the correct techniques and with minimum height loss to return to a clean configuration best-rate climb, or as otherwise directed by the examiner; — completing all necessary checks and drills.
SKILL	<p>To determine that the applicant is able to:</p> <ul style="list-style-type: none"> — select an entry altitude in accordance with safety requirements. When accomplished in an FSTD, the entry altitude may be at low, intermediate, or high altitude as appropriate for the aircraft and the configuration, at the discretion of the examiner; — complete the appropriate checklist before stalling; — slowly establish 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 V_S; — recognise and announce the first indication of a stall appropriate to the specific aircraft design, and initiates recovery as directed by the examiner; — recover to a reference airspeed, altitude, and heading, allowing only the acceptable altitude or airspeed loss and heading deviation using the manufacturer's recommended technique; — demonstrate smooth, positive control during entry, approach to a stall, and recovery.
KNOWLEDGE	<p>To determine that the applicant demonstrates academic knowledge, as well as knowledge related to:</p> <ul style="list-style-type: none"> — limitations; — safety procedures before stall exercises; — stall recovery procedures and techniques.



ATTITUDE	<ul style="list-style-type: none">— Situation awareness:<ul style="list-style-type: none">• ensures that the aircraft is in a safe area and clear of hazards prior to accomplishing an approach to a stall.— Effective communication:<ul style="list-style-type: none">• communicates and coordinates with other flight crew members, as appropriate, for lookout (MPA, examiner).— Leadership and teamwork:<ul style="list-style-type: none">• coordinates with other flight crew members (examiner) to ensure that there is adequate separation from other aircraft before initiating the stall.— Effective workload management:<ul style="list-style-type: none">• as applicable to a specific situation.— Effective problem-solving and decision-making:<ul style="list-style-type: none">• as applicable to a specific situation.
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SECTION 2: GENERAL HANDLING	
(Must be performed by sole reference to instruments)	
e. Limited panel: stabilised climb or descent, level turns at Rate 1 onto given headings, recovery from unusual attitudes — only applicable to aeroplanes	
OBJECTIVE	To determine that the applicant demonstrates continued control of the aircraft by interpreting the aircraft attitude from turn-rate gyros and pressure instruments only. (Aircraft fitted with 'EFIS' type primary instrument displays should be flown by reference to the standby attitude indicator, standby compass, and pressure instruments only.)
SKILL	To determine that the applicant is able to: <ul style="list-style-type: none"> — complete straight and level as well as climbing and descending flight at nominated speeds, to fly Rate-1 turns onto nominated headings by using the correct technique, and to demonstrate correct instrument scan and interpretation; — recover from unusual attitudes including sustained 45-degree bank turns and steep descending and climbing turns using the correct technique to minimise height loss.
KNOWLEDGE	To determine that the applicant: <ul style="list-style-type: none"> — demonstrates the theoretical knowledge of and understands the dangers of 'looping error'; — demonstrates knowledge of the variation of techniques required for aircraft fitted with 'turn needle' compared to 'turn coordinator'; — demonstrates knowledge of the limitations in the use of direct-reading compass systems.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • recognition of unusual attitude; • after recovery: why did the aircraft enter the unusual attitude, e.g. due to distraction, instrument failure, mishandling, hypoxia? • after recovery: is the aircraft above safety altitude? • which is a safe direction to fly whilst assessing the situation? — Effective workload management: <ul style="list-style-type: none"> • addressess the situation to recover situational awareness. — Effective communication: <ul style="list-style-type: none"> • advises other flight crew members of the situation; • advises ATC, if appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • communicates and coordinates with other flight crew members, as appropriate, during the recovery manoeuvre (MPA). — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts promptly to departure from controlled flight.



SECTION 3: EN ROUTE IFR PROCEDURES**SECTION 3: EN ROUTE IFR PROCEDURES****(Must be performed by sole reference to instruments)****a. Tracking, including interception, e.g. NDB, VOR, RNAV**

OBJECTIVE	<p>To determine that the applicant is able to intercept and maintain the route, or amended route, including tracking to and from an NDB or VOR or GNSS-derived position, and to use CDI or single-needle tracking as briefed by the examiner.</p> <p>To determine that the applicant:</p> <ul style="list-style-type: none"> — follows the flight-planned route or any other ATC route requirements within the operating limits specified; — identifies and uses navigation systems correctly; — uses the correct altimeter-setting procedures and shows awareness of MSA.
SKILL	<p>To determine that the applicant is able to:</p> <ul style="list-style-type: none"> — use the current and appropriate navigation publications for the proposed flight; — intercept, in a timely manner, all courses, radials, and bearings (QDM/QDR) appropriate to the procedure, route, ATC clearance, or as otherwise directed by the examiner; — comply, in a timely manner, with all ATC clearances, instructions, and restrictions; — accomplish the aircraft briefing/checklist items appropriate to the arrival; — adhere to airspeed restrictions and adjustments required by regulations, ATC, the Pilot Operating Manual, the AFM, and the examiner; — maintain the appropriate airspeed, altitude, and headings, and accurately tracks radials, courses, and bearing (QDM/QDR). <p>Note 1: GNSS may only be used as a primary tracking aid if the equipment is approved for IFR primary navigation (BRNAV) and has a current database, where appropriate.</p> <p>Note 2: GNSS must only be used when combined with the demonstration of basic tracking to/from a ground-based beacon.</p>
KNOWLEDGE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — basic Instrument-Rating knowledge. — proper ATC phraseology. — adequate knowledge of the Operations Manual: <ul style="list-style-type: none"> • limitations; • instrument patterns; • two-way communications failure procedures; • communication, navigation, and autoflight systems.



ATTITUDE	<ul style="list-style-type: none">— Situation awareness:<ul style="list-style-type: none">• establishes communications with ATC on the correct frequencies and at the appropriate times.— Effective communication:<ul style="list-style-type: none">• reads back correctly, in a timely manner, the ATC clearance in the sequence received, and communicates with flight crew members as appropriate.— Leadership and teamwork:<ul style="list-style-type: none">• demonstrates correct flight crew coordination (where applicable).— Effective workload management:<ul style="list-style-type: none">• monitors in order to ensure that the flight profile complies with the cleared en route routing.— Effective problem-solving and decision-making:<ul style="list-style-type: none">• reacts to navigation errors or unexpected systems malfunctions.
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SECTION 3: EN ROUTE IFR PROCEDURES**(Must be performed by sole reference to instruments)****b. Use of radio aids**

OBJECTIVE	To determine that the applicant is able to make correct use of radio aids with regard to promulgated range, identification, and interpretation, and to make use of ATIS/VOLMET where available.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — uses the current and appropriate navigation publications for the proposed flight; — selects a combination of radio aids that allow the aircraft position to be correctly determined: <ul style="list-style-type: none"> • manages the display of such aids so that the navigational information is readily available; — correctly identifies the chosen radio aids using Morse code where appropriate, i.e. when there is no 'auto-ident'; — correctly assesses the functionality of radio aids, including GNSS, before using them for navigation; — correctly checks Receiver Autonomous Integrity Monitoring (RAIM) of GNSS systems; — correctly inserts navigation planning data into the GNSS system, where appropriate.
KNOWLEDGE	<p>To determine that the applicant demonstrates theoretical knowledge and understanding of:</p> <ul style="list-style-type: none"> — the limitations and errors of VOR and NDB beacons, the limitations and errors of VOR and NDB receivers in the aircraft, and the resulting potential navigational error; — the information pertinent to radio aids/GNSS operations contained in NOTAMs; — the correct identification of ground-based radio aids; — identifying when a ground-based radio aid is radiating but the signal is not available for navigation; — the radio-aid equipment and associated displays fitted to the aircraft.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • monitors flight progress and selects appropriate navigation aids to enable the successful completion of the planned route. — Effective workload management: <ul style="list-style-type: none"> • uses the appropriate 'division of attention' whilst controlling the aircraft and resetting navigation aids. — Effective communication: <ul style="list-style-type: none"> • as applicable to a specific situation. — Leadership and teamwork: <ul style="list-style-type: none"> • as applicable to a specific situation. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to navigation errors or unexpected systems malfunctions.



SECTION 3: EN ROUTE IFR PROCEDURES**(Must be performed by sole reference to instruments)****c. Level flight; control of heading, attitude and airspeed; power-setting; trim technique**

OBJECTIVE	To determine that the applicant demonstrates smooth control of heading, altitude, speed, power, trim, and ancillary controls; correct use of autopilot, where appropriate; correct technique for instrument flight manoeuvring within the specified limits; and maintains balanced and trimmed flight.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — maintains altitude, heading, and balance by sole reference to instruments by using correct instrument confirmation and coordinated control application; — maintains altitude, heading, and balance whilst accelerating/decelerating to specific speeds, as determined by the Aircraft Flight Manual, or as specified by the examiner; — demonstrates the correct procedure for pre-flight functional check of autopilot and/or flight director; — demonstrates the correct operating procedure for autopilot and/or flight director in all modes.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the procedures for controlling the aircraft in accordance with the Pilot Operating Manual/AFM and Operations Manual, as appropriate; — the autopilot system fitted to the aircraft; — the procedures for controlling the aircraft with automatic flight control systems, in accordance with the Pilot Operating Manual/AFM and Operations Manual, as appropriate.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • maintains awareness of the autopilot modes selected, where applicable; • understands the need for trimmed, in balance flight when manually flying the aircraft; • maintains adequate scan rate before, during, and after the execution of any manoeuvre by reference to instruments and AP performance. — Effective communication: <ul style="list-style-type: none"> • as applicable to a specific situation. — Leadership and teamwork: <ul style="list-style-type: none"> • as applicable to a specific situation. — Effective workload management: <ul style="list-style-type: none"> • uses the appropriate 'division of attention' when completing flight log, etc., whilst manually controlling the aircraft. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • prioritises activities to allow maintenance of correct instrument scan.



SECTION 3: EN ROUTE IFR PROCEDURES**(Must be performed by sole reference to instruments)****d. Altimeter settings**

OBJECTIVE	To determine that the applicant demonstrates application of the correct altimeter-setting procedure, and cross-checks and monitors the en route MSA.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — makes correct use and interpretation of the altimeter subscale setting; — cross-checks against a second altimeter.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the ICAO or national procedures, if different, regarding altimeter settings for the airspace the aircraft is occupying; — the effects of extremely low temperatures on altimeter indications; — the limitations and errors of the altimeters due to construction/system installed in aircraft, etc.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • understands the airspace structure and makes appropriate altimeter settings; • is aware of the minimum safe altitude/sector safe altitude. etc. — Effective workload management: <ul style="list-style-type: none"> • as applicable to a specific situation. — Effective communication: <ul style="list-style-type: none"> • uses the appropriate R/T procedures to update pressure settings. — Leadership and teamwork: <ul style="list-style-type: none"> • as applicable to a specific situation: — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • where necessary, identifies and makes appropriate decisions when confronted with system failures.



SECTION 3: EN ROUTE IFR PROCEDURES**(Must be performed by sole reference to instruments)****e. Timing and revision of ETAs (en route hold, if required)**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — understands that the flight plan and clearance are to be completed correctly, and clearances complied with; — demonstrates dead reckoning ability.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — uses the appropriate current aeronautical charts; — extracts and records pertinent information from NOTAMs, the aerodrome/facility directory, and other flight publications; — plots a course for the intended route of flight; — selects the most favourable altitudes; — computes headings, flight time, and fuel requirements.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — weather reports and forecasts; — pilot and radar reports; — winds and temperatures aloft; — ATC procedures related to timing, e.g. update of ETA if changed by ± 3 minutes, clearance limit, etc.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times, and identifies airspace, obstructions, and terrain features; — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received, and demonstrates correct crew communication (where applicable). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • selects appropriate navigation systems/facilities and communication frequencies. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • deals with unexpected navigation errors or system malfunctions.



SECTION 3: EN ROUTE IFR PROCEDURES**(Must be performed by sole reference to instruments)****f. Monitoring of flight progress, flight log, fuel usage, systems management**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — maintains a navigation log and radio log by recording sufficient information such that the route may be reconstructed if necessary after the flight; — monitors the engine and aircraft systems throughout the flight; — monitors fuel consumption versus fuel available and fuel required throughout the flight.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — follows the flight plan route in accordance with ATC; — navigates by means of pre-appropriate radio aids for the cleared route; — uses correct altimetry procedures; — verifies the aircraft's position in relation to the flight-planned route; — correctly assesses track error and makes suitable adjustments to heading; — corrects and records the differences between pre-flight fuel, ground speed, heading and time calculations, and those determined en route; — completes all appropriate checklists.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — national (EU) IFR rules; — policy concerning IFR flights; — separation expected in different classes of airspace.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times, and identifies airspace and minimum altitudes. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received, and demonstrates correct crew communication (where applicable). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • selects the appropriate navigation systems/facilities and communication frequencies. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • deals with unexpected navigation errors or system malfunctions.



SECTION 3: EN ROUTE IFR PROCEDURES**(Must be performed by sole reference to instruments)****g. Ice protection procedures, simulated if necessary**

OBJECTIVE	To determine that the applicant monitors OAT, icing risk, and ice accretion rate (simulated if necessary), and makes correct use of anti-icing and de-icing procedures.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — makes an assessment of ice accretion on the aircraft; — makes an appropriate selection of anti-icing or de-icing systems.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — weather reports and forecasts; — pilot and radar reports; — surface analysis charts; — radar summary charts; — significant weather prognostics; — winds and temperatures aloft; — freezing level charts; — stability charts; — severe weather outlook charts; — SIGMETs; — ATIS and VOLMET reports; — aircraft anti-icing and de-icing system limitations.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • understands the environmental conditions which can lead to the formation of ice on the aircraft; • assesses when ice accretion is beyond the capability of the aircraft systems. — Effective communication: <ul style="list-style-type: none"> • liaises with ATC to avoid known icing conditions, if appropriate; • requests change of route/level to avoid icing conditions. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • selects the appropriate navigation systems/facilities and communication frequencies. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • deals with unexpected encounters with icing conditions or system malfunctions; • seeks to reroute or change of level in a timely manner.



SECTION 3: EN ROUTE IFR PROCEDURES**(Must be performed by sole reference to instruments)****h. ATC liaison — Compliance, R/T procedures**

OBJECTIVE	To determine that the applicant demonstrates ATC liaison using the correct RTF procedures and phraseology, as well as compliance with procedures and clearances.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — follows the flight planned route or any other ATC route requirements within the operating limits specified; — identifies and uses navigation systems correctly; — uses the correct altimeter-setting procedures and shows awareness of MSA; — maintains the flight log for navigation, RTF, and fuel use, sufficient to give position reports and to confirm acceptable minimum fuel states; — conducts an en route hold if required by ATC; — monitors OAT and the aeroplane surfaces for ice, and takes the appropriate actions if necessary. (This will be simulated if there is no actual icing); — uses the correct RTF procedures and phraseology.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — ICAO and national R/T procedures.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times, identifies airspace, and understands clearances. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received, and demonstrates correct crew communication (where applicable). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • selects the appropriate navigation systems/facilities and communication frequencies. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • deals with unexpected navigation errors or system malfunctions.



SECTION 4: PRECISION APPROACH PROCEDURES

SECTION 4: PRECISION APPROACH PROCEDURES	
(Must be performed by sole reference to instruments)	
a. Setting and checking of navigational aids; identification of facilities	
OBJECTIVE	To determine that the applicant makes use of navigation aids with regard to promulgated range, identification, and interpretation.
SKILL	To determine that the applicant: <ul style="list-style-type: none"> — sets and identifies relevant navigation aids; — confirms the availability and serviceability of the selected navigation equipment.
KNOWLEDGE	To determine that the applicant demonstrates knowledge of: <ul style="list-style-type: none"> — communication, navigation, and autoflight systems.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times; • selects radio aids appropriate to the intended approach. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure safe flight profile whilst selecting and checking radio aids. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received, and communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.



SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****b. Arrival procedures; altimeter checks**

OBJECTIVE	To determine that the applicant demonstrates descent planning and consideration of MSA, and completion of the published arrival procedure, or as instructed by ATC, including altimeter-setting, ATC liaison, and RTF procedures.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — sets and cross-checks the appropriate altimeter settings; — uses the correct RTF procedures and terminology, and complies with all ATC instructions and clearances; — establishes the appropriate aircraft configuration and airspeed for the phase of the approach; — complies with the published arrival procedure, or as required by ATC; — interprets arrival charts.
KNOWLEDGE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — knowledge of altimetry procedures in accordance with the relevant regulations; — knowledge of the legend used in the approach charts; — understanding of ATC procedures and R/T phraseology for the type of approach to be completed.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received, and communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the approach procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.



SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****c. Approach and landing briefing, including descent/approach/landing checks**

OBJECTIVE	To determine that the applicant completes the approach briefing including weather and confirmation of instrument approach procedure minima, and all procedures, checks, and drills in preparation for landing.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — completes the checks and drills for landing, and configures the aircraft correctly; — completes crew brief, if appropriate, or own briefing with regard to approach minima and go-around procedure.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the use of checklist, as appropriate; — the necessary adjustments to the published approach minima criteria for the aircraft approach category, and with due regard to: <ul style="list-style-type: none"> • NOTAMs; • inoperative navigation equipment; • inoperative visual aids associated with the landing environment; • reported weather conditions.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received, and communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the approach procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.



SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****d. Holding procedure****(May be performed in either Section 4 or Section 5)**

OBJECTIVE	To determine that the applicant completes the appropriate entry procedure followed by a standard ICAO holding procedure using a needle pointer presentation (where available), and makes the appropriate corrections to heading and time.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — makes the appropriate adjustments in order to arrive over the holding fix as close as possible to the 'expected approach time', if required; — recognises arrival at the clearance limit or holding fix; — complies with ATC reporting requirements; — changes to the recommended holding airspeed appropriate for the aircraft and holding altitude, so as to cross the holding fix at or below the maximum holding airspeed; — follows the appropriate entry procedures in accordance with the standard operational procedures or as required by ATC; — uses the correct timing criteria where required by the holding procedure or ATC; — 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; — makes the appropriate adjustments to the procedure timing to allow for the effects of known wind.
KNOWLEDGE	<p>To determine that the applicant demonstrates adequate knowledge of:</p> <ul style="list-style-type: none"> — holding endurance including but not necessarily limited to fuel on board, fuel flow while holding, fuel required to alternate, etc.



ATTITUDE	<ul style="list-style-type: none">— Situation awareness:<ul style="list-style-type: none">• establishes communication with ATC on the correct frequencies and at the appropriate times.— Effective communication:<ul style="list-style-type: none">• reads back correctly, in a timely manner, the ATC clearance in the sequence received, and communicates with flight crew members as appropriate.— Leadership and teamwork:<ul style="list-style-type: none">• demonstrates correct crew coordination (where applicable).— Effective workload management:<ul style="list-style-type: none">• monitors to ensure that the flight profile complies with the cleared holding pattern.— Effective problem-solving and decision-making:<ul style="list-style-type: none">• reacts to navigation errors or unexpected systems malfunctions.
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SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****e. Compliance with published approach procedure**

OBJECTIVE	To determine that the applicant demonstrates compliance with the published precision approach procedure, and maintains vertical and horizontal profile to the nominated minima.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — completes the manoeuvring pattern as required to establish the final approach segment within the specified flight tolerances; — establishes a predetermined rate of descent at the point where the electronic glide slope begins, in order to follow the glide slope; — intercepts and tracks the localiser within the prescribed limits; — interprets the approach chart.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the communication, navigation, and autoflight systems; — the approach chart for the runway and procedure in use.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times; • correctly interprets and understands the procedure to be flown. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with the flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the cleared procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to navigation errors or unexpected systems malfunctions.



SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****f. Approach timing**

OBJECTIVE	To determine that the applicant monitors or controls the approach procedure using timing as necessary.
SKILL	Where DME, information from ground-based beacons (VOR or NDB) or marker beacons are not available, the applicant makes appropriate adjustments to the procedure timing to allow for the effects of known wind.
KNOWLEDGE	To determine that the applicant uses wind-drift correction techniques to maintain the correct tracks, bearings, and approximate distances.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • understands when approach timing techniques are required; • understands the impact on the descent technique required for the intermediate approach phase. — Effective workload management: <ul style="list-style-type: none"> • uses the appropriate 'division of attention' whilst controlling the aircraft in order to apply wind-corrected timing. — Effective communication: <ul style="list-style-type: none"> • as applicable to a specific situation. — Leadership and teamwork: <ul style="list-style-type: none"> • as applicable to a specific situation. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • as applicable to a specific situation.



SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****g. Altitude, speed, heading control (stabilised approach)**

OBJECTIVE	To determine that the applicant establishes a stabilised approach, in-trim for the aeroplane configuration and speed by using the correct techniques for attitude, heading, and power control, and makes correct assessment of drift and rate of descent.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — establishes the final approach and maintains the approach path in horizontal and vertical profile to DH/A; — controls the aircraft as necessary to achieve a stable (heading and speed) and trimmed final approach path; — arrives at DH/A in such a position that a landing, go-around, or circling approach may be accomplished safely; — prepares backup radio aids for continued approach in the event of radio aid/display equipment failure; — uses correct RTF procedures and terminology, and complies with all ATC instructions and clearances.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — horizontal and vertical tolerances in accordance with ICAO 8168 PANS OPS; — the actions to be taken in the event of radio aid/display equipment failure; — the procedure in the event of loss of communication with ATC.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • identifies if approach is not stabilised. — Effective communication: <ul style="list-style-type: none"> • advises ATC (and crew, if required). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP procedures for loss-of-approach capability. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile remains safe. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • makes appropriate decision to abandon approach if required.



SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****h. Go-around action****(May be performed in either Section 4 or Section 5)**

OBJECTIVE	To determine that the applicant demonstrates transition to a climb at the correct speed and completes the checks at the minima, or as directed by ATC.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — initiates go-around action at or above (maximum + 50 feet) DH/A if the required visual references are not available; — controls the aircraft as necessary to achieve a stable and trimmed initial climb profile; — ensures a safe climb and departure in accordance with clearance and with due regard to other air traffic, noise-abatement, and wake-turbulence avoidance procedures by adjusting power and aircraft configuration, and maintaining desired path (or heading) as appropriate; — completes all the necessary post-take-off checks; — performs or calls for and verifies the accomplishment of landing gear and flap retractions, power adjustments, and other required pilot-related activities at the required airspeeds within the tolerances established in the Pilot Operating Manual or AFM.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the go-around procedure (aircraft handling); — aircraft limitations for landing gear retraction, flap retraction, and power plant; — the necessary R/T procedures.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • monitors the aircraft flight path at all stages of the go-around. — Effective communication: <ul style="list-style-type: none"> • demonstrates effective crew communication (as applicable); • communicates with ATC when safe to do so. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates effective crew coordination (as applicable). — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • correctly assess go-around and climb hazards, particularly those related to other aircraft, aerodrome infrastructure, obstacles, and weather, and has a strategy to mitigate the threats.



SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****i. Missed approach procedure/landing****(May be performed in either Section 4 or Section 5)**

OBJECTIVE	To determine that the applicant follows the published missed approach procedure or continues for visual landing or circles for landing, as appropriate, in a safe and controlled manner.
SKILL	<p>Missed approach</p> <ul style="list-style-type: none"> — To determine that the applicant demonstrates the ability to safely complete the published missed approach procedure: <ul style="list-style-type: none"> • initiates the missed approach procedure at or above (maximum + 50 feet) DH/A if the required visual references for the landing runway are not obtained; • establishes the aeroplane in a safe climb-out, and initiates aeroplane configuration changes as required to achieve at least the performance climb segments; • follows the designated missed approach procedure, or as required by ATC; • arrives at DA/DH in such a position that a landing, go-around, or circling approach may be accomplished safely. <p>Landing</p> <ul style="list-style-type: none"> — To determine that the applicant acquires the required visual references and continues to land the aircraft: <ul style="list-style-type: none"> • makes a smooth transition from instrument to visual flight; • maintains a stable (speed, power, heading), trimmed flight path to the touchdown point; • crosses the landing threshold at 50 feet AGL in the correct landing configuration and at the correct speed in accordance with the performance data for the aircraft; • adjusts descent and round-out (flare) to achieve a safe landing with little or no float with the appropriate drift and crosswind correction; • maintains runway centre line and 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 aircraft to a safe stop; • completes post-landing checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the Operations Manual; — limitations; — normal procedures; — demonstrates adequate judgement and knowledge of the aircraft performance in order to comply with the published approach procedures equipment used for the approach.



ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times; • demonstrates controlled-flight-into-terrain (CFIT) awareness. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the approach procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.
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SECTION 4: PRECISION APPROACH PROCEDURES**(Must be performed by sole reference to instruments)****j. ATC liaison — Compliance, R/T procedures**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — uses correct and standard RTF phraseology throughout; — where appropriate, obtains ATC clearances and the appropriate level of service; — where required, complies with ATC clearances and instructions.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — complies with all ATC instructions and clearances; — uses correct RTF for ILS reporting procedure.
KNOWLEDGE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — knowledge of standard ICAO phraseology; — knowledge of pilot-controller responsibilities including tower, en route control, and clearances; — adequate knowledge of two-way communications failure procedures.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • copies correctly, in a timely manner, the ATC clearance as issued. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change.



SECTION 5: NON-PRECISION APPROACH**SECTION 5: NON-PRECISION APPROACH****(Must be performed by sole reference to instruments)****a. Setting and checking of navigational aids; identification of facilities**

OBJECTIVE	To determine that the applicant uses navigation aids with regard to promulgated range, identification, and interpretation.
SKILL	To determine that the applicant: <ul style="list-style-type: none"> — sets and identifies relevant navigation aids; — confirms the availability and serviceability of selected navigation equipment.
KNOWLEDGE	To determine that the applicant demonstrates knowledge of: <ul style="list-style-type: none"> — communication, navigation, and autoflight systems.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times; • selects radio aids appropriate to the intended approach. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure safe flight profile whilst selecting and checking radio aids. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.



SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****b. Arrival procedures; altimeter checks**

OBJECTIVE	To determine that the applicant demonstrates descent planning and consideration of MSA, completion of the published arrival procedure or as instructed by ATC, including altimeter setting, ATC liaison, and RTF procedures.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — sets and cross-checks the appropriate altimeter settings; — uses correct RTF procedures and terminology and comply with all ATC instructions and clearances; — establish the appropriate aircraft configuration and airspeed for the phase of the approach; — complies with the published arrival procedure or as required by ATC; — interpretation of arrival charts.
KNOWLEDGE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — knowledge of altimetry procedures in accordance with the relevant regulations; — knowledge of the legend used in the approach charts; — understanding of ATC procedures and R/T phraseology for the type of approach to be completed.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the approach procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.



SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****c. Approach and landing briefing, including descent/approach/landing checks**

OBJECTIVE	To determine that the applicant demonstrates approach briefing including weather and confirmation of instrument approach procedure minima, as well as application of all procedures, checks, and drills in preparation for landing.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — completes the checks and drills for landing, and configures the aircraft correctly; — completes crew brief, if appropriate, or own brief with regard to approach minima and go-around procedure.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the use of the checklist, as appropriate; — the necessary adjustments to the published approach minima criteria for the aircraft approach category, and with due regard to: <ul style="list-style-type: none"> • NOTAMs; • inoperative navigation equipment; • inoperative visual aids associated with the landing environment; • reported weather conditions.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the approach procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.



SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****d. Holding procedure****(May be performed in either Section 4 or Section 5)**

OBJECTIVE	To determine that the applicant completes the appropriate entry procedure followed by a standard ICAO holding procedure using a needle pointer presentation (where available), and makes the appropriate corrections to heading and time.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — makes appropriate adjustments in order to arrive over the holding fix as close as possible to the 'expected approach time' if required; — recognises arrival at the clearance limit or holding fix; — complies with the ATC reporting requirements; — changes to the recommended holding airspeed appropriate for the aircraft and holding altitude so as to cross the holding fix at or below the maximum holding airspeed; — follows the appropriate entry procedures in accordance with the standard operational procedures or as required by ATC; — uses the correct timing criteria where required by the holding procedure or ATC; — 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; — makes appropriate adjustments to the procedure timing to allow for the effects of known wind.
KNOWLEDGE	<p>To determine that the applicant demonstrates adequate knowledge of:</p> <ul style="list-style-type: none"> — holding endurance including but not necessarily limited to fuel on board, fuel flow while holding, fuel required to alternate, etc.



ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the cleared holding pattern. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to navigation errors or unexpected systems malfunctions.
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SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****e. Compliance with published approach procedure**

OBJECTIVE	To determine that the applicant demonstrates compliance with the published approach procedure, maintains vertical and horizontal profile to the nominated minima, and makes use of the CDFA technique where possible.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — selects and complies with the appropriate VOR/NDB/LOCALISER ONLY/RNAV instrument approach procedure; — completes the manoeuvring pattern as required to establish the final approach segment within the specified flight tolerances; — establishes a predetermined rate of descent at the point where the notional glide slope begins in order to follow the glide slope-CDFA approach or arranges glide path to conform to any appropriate 'not below' height/altitude when CDFA not possible; — intercepts and tracks the final approach track within the prescribed limits; — interprets the approach chart; — demonstrates the ability to interpret 'single needle' display; — selects correctly the navigational input to the CDI.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — communication, navigation, and autoflight systems; — the approach chart for the runway and procedure in use; — the application of the CDFA technique where possible; — the identification of the correct functioning of the selected radio aids.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times; • correctly interprets and understands the procedure to be flown. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with flight crew members as appropriate; — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the cleared procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to navigation errors or unexpected systems malfunctions.



SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****f. Approach timing**

OBJECTIVE	To determine that the applicant monitors or controls the approach procedure using timing as necessary.
SKILL	Where DME, information from ground-based beacons (VOR or NDB) or marker beacons are not available, the applicant makes appropriate adjustments to the procedure timing to allow for the effects of known wind.
KNOWLEDGE	To determine that the applicant demonstrates knowledge of: <ul style="list-style-type: none"> the use of wind-drift correction techniques to maintain the correct tracks, bearings, and approximate distances.
ATTITUDE	<ul style="list-style-type: none"> Situation awareness: <ul style="list-style-type: none"> understands when approach timing techniques are required; understands the impact on the descent technique required for the intermediate approach phase; understands that the CDFA technique is not applicable if the final approach track is to be flown by reference to timing only; understands that MAPt is now determined by timing; understands the importance of setting/resetting a timing reference at known points. Effective workload management: <ul style="list-style-type: none"> uses the appropriate 'division of attention' whilst controlling the aircraft in order to apply wind-corrected timing. Effective problem-solving and decision-making: <ul style="list-style-type: none"> as applicable to a specific situation.



SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****g. Altitude, speed, heading control (stabilised approach)**

OBJECTIVE	To determine that the applicant establishes a stabilised approach, in-trim for the aeroplane configuration and speed by using the correct techniques for attitude, heading, and power control, and makes correct assessment of drift and rate of descent.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — establishes the final approach and maintains the approach path in horizontal and vertical profile to MDH/A by using the CDFA approach technique where possible; — controls the aircraft as necessary to achieve a stable (heading, power, and speed) and trimmed final approach path; — arrives at MDH/A in such a position that a landing, go-around, or circling approach may be accomplished safely; — prepares backup radio aids for continued approach in the event of radio aid/display equipment failure; — uses correct RTF procedures and terminology, and complies with all ATC instructions and clearances.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — horizontal and vertical tolerances in accordance with ICAO 8168 PANS OPS; — the actions to be taken in the event of radio aid/display equipment failure; — the procedure in the event of loss of communication with ATC.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • identifies if approach is not stabilised. — Effective communication: <ul style="list-style-type: none"> • advises ATC (and crew, if required). — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP procedures for loss-of-approach capability. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile remains safe. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • Makes appropriate decision to abandon approach if required.



SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****h. Go-around action****(May be performed in either Section 4 or Section 5)**

OBJECTIVE	To determine that the applicant demonstrates transition to a climb at the correct speed and completes the checks at the minima, or as directed by ATC.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — initiates go-around action at or above (maximum + 50 feet) MDH/A if the required visual references are not available; — controls the aircraft as necessary to achieve a stable and trimmed initial climb profile; — ensures a safe climb and departure in accordance with clearance and with due regard to other air traffic, noise-abatement, and wake-turbulence avoidance procedures by adjusting power and aircraft configuration, and maintaining desired path (or heading) as appropriate; — completes all the necessary post-take-off checks; — performs or calls for and verifies the accomplishment of landing gear and flap retractions, power adjustments, and other required pilot-related activities at the required airspeeds within the tolerances established in the Pilot Operating Manual or AFM.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the go-around procedure (aircraft handling); — the aircraft limitations for landing gear retraction, flap retraction, and power plant; — the necessary R/T procedures.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • monitors the aircraft flight path at all stages of the go-around. — Effective communication: <ul style="list-style-type: none"> • demonstrates effective crew communication (as applicable); • communicates with ATC when safe to do so. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates effective crew coordination (as applicable). — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • correctly assesses go-around and climb hazards, particularly those related to other aircraft, aerodrome infrastructure, obstacles, and weather, and has a strategy to mitigate the threats.



SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****i. Missed approach procedure/landing****(May be performed in either Section 4 or Section 5)**

OBJECTIVE	To determine that the applicant follows the published missed approach procedure or continues for visual landing or circles for landing as appropriate in a safe and controlled manner.
SKILL	<p>Missed approach</p> <ul style="list-style-type: none"> — To determine that the applicant demonstrates the ability to safely complete the published missed approach procedure: <ul style="list-style-type: none"> • initiates the missed approach procedure at or above (maximum + 50 feet) DH/A if the required visual references for the landing runway are not obtained; • establishes the aeroplane in a safe climb-out and initiates aeroplane configuration changes as required to achieve at least the performance climb segments; • follows the designated missed approach procedure or as required by ATC; • arrives at DA/DH in such a position that a landing, go-around, or circling approach may be accomplished safely. <p>Landing</p> <ul style="list-style-type: none"> — To determine that the applicant acquires the required visual references and continues to land the aircraft: <ul style="list-style-type: none"> • makes a smooth transition from instrument to visual flight; • maintains a stable (speed, power, heading), trimmed flight path to the touchdown point; • crosses the landing threshold at 50 feet AGL in the correct landing configuration and at the correct speed in accordance with the performance data for the aircraft; • adjusts descent and round-out (flare) to achieve a safe landing with little or no float with the appropriate drift and crosswind correction; • maintains runway centre line and 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 aircraft to a safe stop; • completes post-landing checklist.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the Operations Manual; — limitations; — normal procedures; — demonstrates adequate judgement and knowledge of the aircraft performance in order to comply with the published approach procedures equipment used for the approach.



ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times; • demonstrates CFIT awareness. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received; • communicates with flight crew members as appropriate. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable) with regard to SOP call-out. — Effective workload management: <ul style="list-style-type: none"> • monitors to ensure that the flight profile complies with the approach procedure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • reacts to deviation errors or unexpected systems malfunctions.
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SECTION 5: NON-PRECISION APPROACH**(Must be performed by sole reference to instruments)****j. ATC liaison — Compliance, R/T procedures**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — uses correct and standard RTF phraseology as appropriate to VOR/NDB/LOCALISER ONLY/RNAV instrument approach procedure; — where appropriate, obtains ATC clearances and the appropriate level of service; — where required, complies with ATC clearances and instructions.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — complies with all ATC instructions and clearances; — uses correct RTF phraseology for the reporting procedure.
KNOWLEDGE	<p>To determine that the applicant demonstrates:</p> <ul style="list-style-type: none"> — knowledge of standard ICAO phraseology; — knowledge of pilot-controller responsibilities including tower, en route control, and clearances; — adequate knowledge of two-way communications failure procedures.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • establishes communication with ATC on the correct frequencies and at the appropriate times. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • copies correctly, in a timely manner, the ATC clearance as issued. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change.



SECTION 6: FLIGHT WITH ONE ENGINE INOPERATIVE**SECTION 6: FLIGHT WITH ONE ENGINE INOPERATIVE****(Must be performed by sole reference to instruments)****(Multi-engine aeroplanes only)****a. Simulated engine failure after take-off or on go-around (at a safe altitude unless conducted in an FS or FNPT II)**

OBJECTIVE	<p>To determine that the applicant, at a safe height/altitude and by sole reference to instruments:</p> <ul style="list-style-type: none"> — maintains directional control following simulated engine failure; — correctly identifies failed engine, confirms failed engine, and completes the published checks and drills; — maintains the correct speed, configuration, and trim for optimum performance; — complies with ATC instructions.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — maintains control following engine failure; — reduces drag, and verifies the inoperative engine; — secures the inoperative engine, if appropriate; — simulates feathering of the propeller of the inoperative engine, if appropriate; — establishes VYSE; — manoeuvres the aircraft as recommended by the Pilot Operating Manual/Flight Manual for best performance, trims the aircraft, and maintains control; — monitors the operating engine and makes adjustments as necessary; — carries out the recommended emergency procedures.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the Operations Manual: <ul style="list-style-type: none"> • all systems; • limitations; • abnormal procedures; — the operator policy relating to failure during take-off, in particular operator engine-out path during take-off.



ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • recognises engine failure, and confirms correct engine. — Effective communication: <ul style="list-style-type: none"> • communicates appropriately with ATC; • communicates (MPA) to assist with handling the shutdown drills. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • applies appropriate abnormal or emergency procedures, if time permits, to resolve reason for engine failure. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • identifies critical situation and makes timely decision on suitable actions to carry out a safe asymmetric landing.
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SECTION 6: FLIGHT WITH ONE ENGINE INOPERATIVE**(Must be performed by sole reference to instruments)****(Multi-engine aeroplanes only)****b. Approach, go-around and procedural missed approach with one engine inoperative**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — maintains a stable (trimmed) approach in the correct configuration; — makes a clear decision to land or go around not later than the appropriate committal height; — completes asymmetric approach and go-around into visual circuit, circling approach, or further instrument approach, and maintains control and correct speeds; — reconfigures and trims the aircraft correctly; — completes post-take-off/go-around checks.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — 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 climbs 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 aircraft 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 the approved procedures; — other items as per the initial instrument departure.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the Operations Manual: <ul style="list-style-type: none"> • all systems; • limitations; • abnormal procedures; • patterns; — the operator policy relating to approach stabilisation criteria.



ATTITUDE	<ul style="list-style-type: none">— Situation awareness:<ul style="list-style-type: none">• recognises if approach profile is not stabilised.— Effective communication:<ul style="list-style-type: none">• communicates appropriately with ATC;• communicates (MPA) to assist with handling the shutdown drills.— Leadership and teamwork:<ul style="list-style-type: none">• demonstrates correct crew coordination (where applicable).— Effective workload management:<ul style="list-style-type: none">• applies appropriate abnormal procedures for asymmetric approach and go-around.— Effective problem-solving and decision-making:<ul style="list-style-type: none">• identifies if critical situation is occurring due to inappropriate approach profile, and makes a timely decision to execute go-around.
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SECTION 6: FLIGHT WITH ONE ENGINE INOPERATIVE**(Must be performed by sole reference to instruments)****(Multi-engine aeroplanes only)****c. Approach and landing with one engine inoperative**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — establishes the approach and landing configuration appropriate for the runway and meteorological conditions, and adjusts the engine controls as required; — completes the applicable pre-landing checklist; — maintains a stabilised approach at the desired airspeed; — maintains the operating engine(s) within the 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 aircraft to a safe stop after landing; — maintains positive directional control and crosswind corrections during the post-landing roll; — accomplishes the applicable post-landing briefing/checklist items in a timely manner, after clearing the runway, and as recommended by the manufacturer.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — considers the actual weather and wind conditions, landing surface, and obstructions; — maintains a stable (trimmed) approach in the correct configuration; — plans and follows the suitable approach pattern and orientation with the landing runway; — establishes the correct approach configuration, adjusting speed and rate of descent to maintain a stabilised approach path; — makes a clear decision to land or go around not later than the appropriate committal height; — selects and achieves the appropriate touchdown area at the required speed; — adjust descent and round-out (flare) to achieve a safe landing with little or no float with the appropriate drift and crosswind correction; — maintains control and engages aircraft brakes for a safe roll out, and completes necessary checks and drills.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — the Operations Manual: <ul style="list-style-type: none"> • all systems; • limitations; • abnormal procedures; • patterns; • understands the factors affecting Asymmetric Committal Height/Altitude (ACH/A).



ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • recognises if approach profile is stabilised, which will lead to a safe asymmetric landing. — Effective communication: <ul style="list-style-type: none"> • communicates (MPA) to assist with handling and liaison with ATC. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • applies appropriate abnormal procedures for asymmetric approach and landing. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • makes appropriate decision at Asymmetric Committal Height (ACH) to commit to final flap selection and landing.
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SECTION 6: FLIGHT WITH ONE ENGINE INOPERATIVE**(Must be performed by sole reference to instruments)****(Multi-engine aeroplanes only)****d. ATC liaison — Compliance, R/T procedures**

OBJECTIVE	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — informs ATC of abnormal flight condition, and any assistance required; — complies with ATC procedures and instructions; — adjusts traffic pattern with due regard to weather, surface conditions, obstructions, and other air traffic, and adjusts configuration and circuit pattern with regard to the aircraft performance.
SKILL	<p>To determine that the applicant:</p> <ul style="list-style-type: none"> — uses standard phraseology when declaring an emergency; — seeks assistance as appropriate.
KNOWLEDGE	<p>To determine that the applicant demonstrates knowledge of:</p> <ul style="list-style-type: none"> — standard ICAO phraseology.
ATTITUDE	<ul style="list-style-type: none"> — Situation awareness: <ul style="list-style-type: none"> • communicates to ATC an emergency state that has occurred. — Effective communication: <ul style="list-style-type: none"> • reads back correctly, in a timely manner, the ATC clearance in the sequence received. — Leadership and teamwork: <ul style="list-style-type: none"> • demonstrates correct crew coordination (where applicable). — Effective workload management: <ul style="list-style-type: none"> • copies correctly, in a timely manner, the ATC clearance as issued. — Effective problem-solving and decision-making: <ul style="list-style-type: none"> • interprets correctly the ATC clearance received and ensures ability to comply with aircraft in an asymmetric configuration.

