CIVIL AVIATION DIRECTORATE
Civil Aviation Directorate,Transport Malta, Pantar Road, Ħal Lija LJA 9023 Malta. Tel:+356 2555 5000 cadpel.tm@transport.gov.mt www.transport.gov.mt

Flight Examiner Manual and Policy for Helicopter Examiners Authorised as FE, IRE & FIE

Version 4

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Table of Contents

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Amendment Summary

Paragraph	Change
	Revision 3 Changes made with reference to the **EASA Flight Examiner Manual** and the **EASA Training Guide for Helicopter Flight Instructors**: Module 1 – General Additions to Chapter 0 Generic Notes 0.8 Check flights on helicopters Chapter 2 – Practical training of examiners Chapter 5.4 Repeat Items Chapter 7 – Assessment of competence of instructors (helicopter) Chapter 8 - Test Items Addition of Appendices 1 to 5
	Revision 4 Change made with reference to the **Air Navigation Act**

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Abbreviations

ADF	Automatic Direction Finding
HFM	Helicopter Flight Manual
AGL	Height Above Ground Level
AI	Artificial Indicator
AIC	Aeronautical Information Circular
AIP	Aeronautical InformationPublication
AMC	Acceptable Means of Compliance
ANA	Air Navigation Act
AoC	Assessment of Competence for Part-FCL
APU	Auxiliary Power Unit
ATC	Air Traffic Control
ATO	Approved Training Organisation
CAS	Calibrated Airspeed
CDFA	Continuous Descent Final Approach
CFIT	Controlled Flight Into Terrain
CPL	Commercial Pilot Licence
DI	Direction Indicator
DME	Distance Measuring Equipment
EASA	European Aviation Safety Agency
EU	European Union
FI	Flight Instructor
FIE	Flight Instructor Examiner
FIR	Flight Information Region
FE	Flight Examiner
FORDEC	Facts-Options-Risks-Decision-Execution-Check
FSTD	Flight Simulation Training Device
GM	Guidance Material
GND	Ground
GPS	Global Positioning System
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IR	Instrument Rating
IRE	Instrument Rating Examiner
IRI	Instrument Rating Instructor
LAPL	Light Aircraft Pilot Licence
LLZ	Localizer
LPC	Licence Proficiency Checks
LST	Licence Skill Test (Part-FCL skill test of initial issue)
MCC	Multi-Crew Coordination
MDA	Minimum Descent Altitude
ME	Multi-Engine
MEL	Minimum Equipment List
MFD	Multi-Function Display
NDB	Non-Directional Beacon
NOTAM	Notice to Airmen
OAT	Outside Air Temperature
OM	Operations Manual
PBN	Performance Based Navigation
PEL	Personnel Licensing
PFD	Primary Flight Display
PPL	Private Pilot Licence
RMI	Radio Magnetic Indicator
RT	Radio Telephony

SEN	Senior Examiner
SID	Standard Instrument Departure
ST	Skill Test
TEM	Threat and Error Management
TM-CAD	Transport Malta Civil Aviation Directorate
UAS	Undesired Helicopter State
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
VOR	Very High Frequency (VHF) Omni-Directional Range

Definitions

Applicant	Pilot requiring a rating or certificate
Candidate	Pilot requiring initial examiner authorisation
Competency	Human Performance indicator and observable behavior
Acceptance test	Flight test conducted by a senior examiner (SEN) or inspector of ACG for an initial examiner authorisation. The purpose of the acceptance test is to prove that the candidate for an initial examiner authorisation is proficient and capable to undertake the duties of an examiner.
Demonstration of theoretical knowledge	The examiner applicant shall demonstrate to the inspector a satisfactory level of knowledge concerning regulatory requirements associated with the function of an examiner.
Duties of Crew during acceptance tests	It is important that all pre-flight briefings are thorough and that all members of the flight crew are aware of their duties and responsibilities throughout the acceptance test.
Dummy	Pilot acting as an applicant not requiring a rating. The primary duty of a 'dummy' is to act as an applicant in all aspects of the flight. During the flight it is important that he makes some errors (whether by accident or by design is not important), so that the candidate must observe, exercise judgement, assess and have something to debrief on. The 'dummy' is to include some obvious mistakes to be detected by the candidate. In general, he must try to simulate a typical flight of a marginal applicant. The purpose of the flight is to ensure that the candidate is aware of his duties as an examiner. A 'Pass' with no errors would prove very little. Therefore the 'dummy' needs to be an experienced pilot.
Part FCL	Regulation Air Crew Annex I
Part OPS	Regulation for Operators Annex III
Part MED	Regulation for Medicals Annex IV
Performance Criteria	Statements used to define required levels of performance
Proficient	Demonstration of necessary skills, knowledge and attitudes
Proficiency Check	a demonstration of skill to revalidate or renew ratings (e.g. LPC)
Revalidation	An administrative action taken within the period of validity of a rating or certificate which allows the holder to continue to exercise the privileges of a rating or certificate for a further specified period consequent upon the fulfilment of specified requirements
Renewal	An administrative action taken after a rating or certificate has lapsed for the purpose of renewing the privileges of a rating or certificate for a further period consequent upon the fulfilment of specified requirements
Senior Examiner (SEN) or Inspector	The SEN/Inspector must brief the candidate at the commencement of the exercise on their relative roles, i.e. the candidate will conduct the flight test without hindrance from the SEN, including briefings, conduct of flight, assessment and debrief and documentation. The SEN should remain as unobtrusive as possible throughout the test, but at the same time observing the 'dummy' and the candidate
Skill Test	A demonstration of skill for licence or rating issue (e.g. LST)

Chapter 0 - Introduction

0.1 Actual changes to the prior version

Highlighted in yellow

0.2 Purpose

This document has been established to satisfy requirements to ensure the conduct and performance of TM-CAD certified examiners in accordance with ARA.FCL.205.

0.3 Scope

This Manual is applicable for all Malta authorised Flight Examiners.

TM-CAD is required to maintain a database of examiners' names and personal e-mail addresses. If you change your e-mail address, please ensure that you use the email address below to inform us of any changes. Simply enter your Examiner reference number in the message field, and then send to cadpel.tm@transport.gov.mt.

The specific routes stated in this document are relevant for tests being conducted in Malta.

0.4 Flight Examiner's Manual

This manual is published as an appendix to Commission Regulation (EU) No. 1178/2011 (as amended), the **EASA Flight Examiner Manuals (FEM)** and the **EASA Training Guide for Helicopter Flight Instructors**. The requirements in the regulation shall always be adhered to.

The intention and purpose of this document is to offer guidance on how to adhere to this Regulation and national statutory laws. Nothing in this document is intended to conflict with the EASA Air Crew Regulation or Malta statute law where applicable. Whilst every effort is made to ensure that all information is correct at the time of publication, TM-CAD 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 in national policy and best practice.

Furthermore, the document is intended to provide all examiners with a convenient and current reference on how to perform their examining duties. It is essential that examiners use current and standardised practices. The instructions, policy and guidance detailed in this document are for examiners conducting skill tests/ proficiency checks for Type Ratings on Single-Pilot Helicopters (SP (H)) for Malta and EASA licences. Additional guidance material is also included. In accordance with ARA.205, Examiners shall comply with the instructions, policy and Guidance contained herein.

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

0.5 Introduction and Limitations

TM-CAD issues flight crew licences and ratings in accordance with the requirements of the Part FCL and Part ARA. TM-CAD shall ensure that the applicant of a licence or rating has qualified by reason of knowledge, competence and skill to hold the appropriate licence or rating. TM-CAD will therefore certify suitably experienced and qualified pilots as examiners to conduct the necessary skill tests or proficiency checks.

An examiner shall hold a certificate detailing the privileges that he may exercise. In this role, the examiner shall be mindful that he/she is performing a function on behalf of Malta and European Law even when conducting Skills Tests (ST) or Licence Proficiency Checks (LPC) within his own company.

Skill tests/proficiency checks that are carried out on Malta issued licence holders should be conducted in accordance with this document. Knowledge of this document and its practical application is vital for the examiner's conduct and assessment of skill tests or proficiency checks. Any advice concerning the conduct of skill tests and proficiency checks may be obtained from TM-CAD Personnel Licensing Unit on email – cadpel.tm@transport.gov.mt. Every examiner is responsible to check the latest version of this manual before conducting check flights. Feedback is highly appreciated and can be sent to TM-CAD Personnel Licensing Unit.

It is mandatory for pilots to inform Licensing Applications (cadpel.tm@transport.gov.mt) of changes to their contact details.

Any limitation published in this manual must be adhered to with the exception where more restrictive limits are published in the organisation's operation manual or training manual or the helicopter HFM/POH.

0.6 Records and control of document

Records shall be kept for 5 years unless specified differently in Commission Regulation 1178/2011.

0.7 Relevant documents

Malta Air Navigation Act
Relevant TM-CAD Skill Test/ Proficiency Check and Report Forms
EASA Examiner Differences Document
EASA Flight Examiner Manuals, Examiner Differences Document, and the EASA Training Guide for Helicopter Flight Instructors
PEL Notices 49, 50, and 57
TM-CAD LAPL(H), PPL(H), CPL(H) and IR(H) Application and Report Forms

0.8 Limitations for check flights on Helicopters

No additional persons shall be carried on board during skill tests or proficiency check flights.

0.9 Emergency Training

Malfunction/Emergency Training:

Before the flight, the examiner must perform a risk assessment especially regarding the planned malfunction/emergency training to determine the magnitude of risk and to establish whether measures are needed to stay within acceptable limits of safety.

1. Malfunction and emergency procedures are only allowed to be performed if the corresponding procedures are published in the manufacturer's manual.
2. Malfunction and emergency training in the Helicopter must be performed via touch drill according to the restrictions of the HFM/POH. The exact procedure must be briefed before the flight. The application priority of the procedure is as follows: first the published manufacturer's procedure and second procedures as trained by the ATO.
3. Pulling of circuit breakers in the Helicopter during flight or ground manoeuvres for the simulation of malfunctions and emergencies is forbidden.
4. Actual engine shut down on the Helicopter is not allowed to be performed. The simulated engine failure is to follow the corresponding procedure available in the HFM/POH. The following limitations must be applied:
   I. Minimum altitude for simulated engine failure is 1000ft AGL (unless engine failure is simulated in the hover).
   II. VMC.
   III. Visual contact to the ground.
   IV. Within reasonable distance to assure landing (depending on helicopter specifications)
   V. ATC informed (if applicable).
   VI. Procedures and limitations according HFM/POH must be applied.
5. Minimum altitude for steep turns is 2000 ft above GND.

10.0 Schedule planning

An Examiner should plan a test or check flight taking into consideration the maximum and minimum durations of an individual test and the proportion of time allocated to each test item. The Examiner cannot unnecessarily protract a test because that may unfairly degarde the candidate's performance. The Examiner should consider the weather conditions, traffic situation, ATC requirements, local procedures and test airport security procedures. Combined test schedules should be appropriately planned to allow all manoeuvres required by each test profile to be completed. When a test is combined this does not mean that the test times are cumulative. It is imperative that the Examiner allows for an appropriate rest period bewtween subsequent tests.

10.1 Just Culture

The civil aviation system promotes a 'safety culture' facilitiating the spontaneous reporting of occurances and thereby advancing the principle of a 'just culture'. Examiners should be aware of the importance of reporting, analysis and follow up of occurances and promote a positive Just Culture environment.

Chapter 1 – General Requirements

1.1 Register of Examiners

Applicants for an examiner certificate shall demonstrate relevant knowledge, background and appropriate experience related to the privileges of an examiner, including the personality and character of the applicant and their cooperation with TM-CAD.

TM-CAD shall also consider whether the applicant has been convicted of any criminal or other offense, considering Malta national law & principles of non-discrimination. Applicants shall demonstrate that they have not been subject to any sanctions including suspension, limitation or revocation of any of their licences, ratings or certificates issued in accordance with the Aircrew Regulation, for non-compliance with the Basic Regulation and its Implementing Rules during the last three years.

1.2 Examiners

Examiners shall hold an equivalent licence, rating or certificate to the ones for which they are authorised to conduct skill tests, proficiency checks or assessments of competence and the privileges to instruct for them.

Examiners shall be qualified to act as pilot-in-command on the helicopter during a skill test, proficiency check or assessment of competence when conducted on the helicopter.

Examiners must be:

- Fit, firm and fair (objective) for their duty when carrying out examiner privileges.
- Fill out correctly all relevant documents
- Aware that they are responsible to Transport Malta - Civil Aviation Directorate only and not to an operator or approved training organisation.
- Aware of the main purpose of a test or check:
    1. 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.
    2. 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.
    3. Assist in maintaining and, where possible, improving air safety standards.

In case of a fail of the conduction of the check the examiner must inform the applicant that the second attempt must be conducted by an examiner explicitly designated by the competent authority.

Special conditions

In the case of introduction of a new helicopter to the Member State or in an operator's fleet, when compliance with the requirements of Part-FCL is not possible, TM-CAD 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 helicopter and its validity shall not, in any case, exceed 1 year.

Examination outside the territory of the Member States

In the case of skill tests and proficiency checks provided in an ATO located outside the Malta, TM-CAD may issue an examiner certificate to an applicant holding a pilot licence issued by a third country in accordance with ICAO Annex 1, provided that the applicant meets the requirements of FCL.1000(c). The certificate referred to above shall be limited to providing skill tests and proficiency tests/checks:

a) outside the territory of EASA Member states; and
b) to pilots who have sufficient knowledge of the language in which the test/check is given.

1.3 Examiners assessment of competence

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

1.4 Examiner qualifications and roles

There will be one role of examiner for Helicopter which is covered in this manual: Flight Examiner FE, IRE and FIE

Pilot-in-Command

When the candidate is occupying a pilot's seat, he/she is the only one with a clear view and full access to the controls, and often is most familiar with the type. He/she must be the PIC and the control of the helicopter is his/her responsibility. However, the Senior examiner/Inspector has an overriding responsibility in avoiding dangerous situations, although he/she has no full access to controls.

Summary of privileges for flight examiners FE (H)
Refer to Part-FCL.1005.FE(b)

Record Keeping
Examiners shall maintain records for 5 years with details of all skill tests, proficiency checks, and assessments of competence performed and their results. For further details refer to FCL.1030

1.5 Examiner Validity

FE certificates shall be valid for three years and valid until the last day of the month and shall be revalidated in accordance with Part-FCL Subpart K. Consequently, an instructor who is also an examiner may have different expiry dates for the two qualifications.

Examiners shall note that examining privileges may only be exercised when the corresponding instructor qualification is valid.

1.6 Examiners' Standardisation – FCL.1015

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 as that which issued the examiner's certificate, unless they have reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

a) For Malta authorised examiners - FCL.1015 paragraph (b)(3) requires all TM-CAD issued examiners to receive a briefing on the national administrative procedures, requirements for the protection of personal data, liability, accident insurance and fees. This will be completed during the Malta Examiner Standardisation Course.
b) All non-Malta Examiners conducting skill tests, proficiency checks or assessments of competence on Malta licence holders are required to be fully conversant with TM-CAD procedures.
c) Also for non-Malta authorised examiners – FCL.1015(c)(1) requires the examiner to inform the competent authority of the applicant of their intention to conduct the skill test, proficiency check or assessment of competence and of the scope of their privileges as examiners in accordance with the latest EASA Examiner differences document;
d) The competent authority is required to develop procedures to designate examiners for the conduct of skill tests (ARA.FCL.205(c)). This procedure is in the latest EASA Examiner Differences Document and the latest version of PEL Notice 49.
e) All non-TM-CAD authorised examiners wishing to conduct a skill test, proficiency check or assessment of competence on an applicant who holds an EASA pilot license issued by Malta, shall refer to the EASA Examiner Differences Document on the EASA website, FCL.1015(c).
f) TM-CAD is required under ARA.FCL.205(b) to maintain a list of all examiners exercising the privileges of their examiner's certificate within Malta. This list is published and updated on a regular basis.
g) All personal data will be handled in accordance with EU Data Protection Act 2016/679.

Revalidation and Renewal - Part-FCL 1025(b)
To revalidate an examiner certificate, holders shall comply with Part-FCL 1025(b) (1) and (2)

The examiner refresher seminar will provide refresher training to examiners that covers their knowledge and practical understanding of all elements of the examiner standardisation course syllabus as detailed in AMC1.FCL.1015. It shall also cover changes in regulation and policy which have occurred since the delegate examiner completed his or her initial examiner standardisation course or last seminar and include subjects as promulgated periodically as required by TM-CAD. TM-CAD will closely monitor provision of this approved activity.

Requirements for examiner seminars are as follows:

- An ATO must hold a specific approval from the TM-CAD to conduct examiner refresher seminars. These are required to be monitored as part of the TM-CAD management system and shall be periodically audited.
- An examiner refresher seminar will normally be a full day course and examiners shall attend the whole of the seminar. To gain maximum benefit from sharing feedback and experience, seminars are ideally held with several candidates present. This will be subject to TM-CAD oversight. If one off seminars are required for individuals, the TM-CAD shall be informed.
- The facilitator of the seminar shall either be a TM-CAD Inspector, a Malta Senior Examiner or a FE course tutor. Other persons may be accepted at the discretion of the TM-CAD. Persons shall be nominated by the ATO for the purpose.
- An examiner shall attend an examiner refresher seminar–in the last year of their validity period. Whilst not a formal requirement, it is recommended that examiner attend a refresher seminar prior to conducting an assessment of

competence.

- The ATO shall establish a procedure with the TM-CAD for informing TM-CAD of an individual's attendance at a seminar, for example a Course Completion Certificate. Once completed, this should be sent by the candidate or the ATO to cadpel.tm@transport.gov.mt with any respective application for revalidation of an examiner certificate.

Minimum required syllabus:

- information on the national administrative procedures including designation for the skill tests, licence endorsements when revalidating or renewing a licence,
- correct filling of forms,
- protection of personal data,
- liability,
- accident insurance,
- fees,
- the examiner differences document,
- retention of documents,
- items which raised significant safety concerns locally or in general like runway incursions and runway excursions,
- fundamentals of human performance and limitations relevant to flight examination
- information on new regulations concerning examiners.

(1) One of the skill tests, proficiency checks, assessments of competence or EBT evaluation phases conducted in accordance with (1) above within the last 12 months immediately preceding the expiry date of the examiner certificate shall have been assessed by an inspector from TM-CAD or by a senior examiner specifically authorised to do so by TM-CAD.

Renewal - Part-FCL 1025(c)

To renew an examiner certificate, the applicants shall comply with the requirements in point (2) and point FCL.1020 in the period of 12 months immediately preceding the application for the renewal.

1.7 Preparation of the examiner refresher seminar

The examiner refresher seminar is prepared by the Head of the Flight Operations Inspectorate or an inspector appointed by him/her and the Head of Personnel Licensing or an inspector appointed by him/her after consultation with the Safety Unit.

1.8 Application and Administration Procedure

For an initial application, once the Examiner Standardisation course has been booked, the examiner applicant will submit an application and the appropriate fee to cadpel.tm@transport.gov.mt. This should normally be at least 4 weeks before the requested Examiner AoC. For a revalidation, an application for an Examiner AoC together with the appropriate fee shall first be sent to cadpel.tm@transport.gov.mt a minimum of 4 weeks prior to a requested assessment date.

It is the responsibility of Examiners to notify cadpel.tm@transport.gov.mt immediately of any changes to their circumstances that may affect the validity of the certificate and any privileges attached. Examples of such changes could be: a change of helicopter type, ceasing to exercise the privileges of the certificate, loss of licensing privileges and medical fitness. Fees payable are laid down in the Regulatory Instrument of the Air Navigation Act.

Contact Addresses:

For General Enquiries on Examiner matters, including Certificates and Applications:

Personnel Licensing Department
Civil Aviation Directorate
Transport Malta
Malta Transport Centre
Pantar Road
Lija LJA 2021
Malta

E-mail: cadpel.tm@transport.gov.mt

Chapter 2 – Practical training of examiners

2.1 General

All applicants for an examiner certificate must have received a TM-CAD approved initial examiner standardisation. Applicants shall then demonstrate their competence to an inspector from TM-CAD or a senior examiner specifically authorised to do so by TM-CAD through the conduct of a skill test, proficiency check or assessment of competence in the examiner role for which privileges are sought. For further details related to the Examiner Standardisation course please refer to the TM-CAD website.

2.2 Training Content

Specific flight test and check training

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

1. Knowledge and management of the test which the authorisation is sought for. These are described in the relevant Chapters in this manual.
2. Knowledge of the administrative procedures pertaining to that test/check
3. For an initial examiner authorisation practical training in the examination of the test profile sought is required.
4. An examiner certification acceptance test flight with an inspector or senior examiner designated by the authority, e.g. for FE (PPL) this is to be the PPL skill test.

2.3 Skill Test/Prof Check Standards

Standards of performance are central to a consistent conduction of tests and checks by examiners throughout EASA member states:

1. Examiners shall consistently apply Part-FCL standards during a test/check. However, as the circumstances of each test/check conducted by an examiner may vary, it is also important that an examiner's test/check assessment considers any adverse condition(s) encountered during the test/check.
2. It is emphasised that test/check applicants should concern themselves only with flying and operating the Helicopter to the best of their ability. Definition of and compliance with the test standards is the responsibility of the examiner. The test standards are depicted in Chapter 3 as a reference for the examiner and applicant
3. The examiner is expected to display sound judgement particularly when establishing any abnormal or simulated emergency exercise so that the safety of the flight is never placed at risk.
4. Throughout the flight compliance with briefing/checklists, procedures, anti-icing and de-icing precautions, airmanship, ATC liaison and compliance, RT procedures, flight management and MCC (where applicable) will be assessed.
5. Examiners are reminded that applicants may appeal against the conduct of any test/check in accordance with EASA regulations and the procedure in the Malta Air Navigation Act.

Note: The examiner shall be the Pilot-in-Command, except in circumstances agreed by the examiner.

Conduct of the test/check

1. The test/check is a two-attempt test/check. The applicant shall fly all items at attempt number one (first attempt) prior to retesting any item (attempt number two). There may be some exceptions. When conducting the test/check in an aircraft, it may be inappropriate or impossible to complete the first attempt due to ATC or external influences. This flexibility would not be appropriate or required during FSTD testing/checking.
2. Failure in any item of a section will cause applicants to fail the entire section.
3. Failure of only one section, will give a partial pass and the candidate shall repeat only that section.
4. Failure in more than one section will require applicants to repeat the entire test or check.
5. Failure in any section in the case of a retest or recheck, including those sections that have been passed on a previous attempt, will require applicants to repeat the entire test or check again.
6. If the skill test/proficiency check is terminated for reasons considered adequate by the examiner only those sections not completed shall be tested in a further flight. If any items were failed on the first flight, all items not completed on the first attempt shall be tested separately, before any retest is undertaken.
7. If an applicant fails to achieve a satisfactory standard in an item, he will be re-tested in that item. Such re-tests shall be indicated on company training records and the TM-CAD form. The examiner may stop the test/check at any stage if it is considered that the applicant's competency requires a complete re-test or re-check.

2.4 Pre-flight briefing

Refer to the **EASA Flight Examiner Manual Module 1 – Section 13**

2.5 Airmanship

Refer to Appendix 1

2.6 Situational Awareness

For a pilot, situational awareness means having a mental picture of the existing inter-relationship of location, flight conditions, configuration and energy state of the helicopter as well as any other factors that could be about to affect its safety such as proximate terrain, obstructions, airspace reservations and weather systems. The potential consequences of inadequate situational awareness include CFIT, loss of control, airspace infringement, loss of separation, or an encounter with wake vortex turbulence, severe air turbulence, heavy icing or unexpectedly strong head winds.

2.7 The components of Threat and Error Management (TEM) Model

Refer to Appendix 3

2.8 Oral questions

Refer to Appendix 4

2.9 Pass/Fail criteria

Refer to Appendix 5 for the definition of strong and weak elements of performance and Appendix 2 for Assessment System.

The examiner must check Part-FCL references for pass/fail criteria relevant to the test to be conducted. In general, the guidance is *"In the case of single-pilot Helicopters, the applicant shall pass all sections of the skill test or proficiency check. If any item in a section is failed, that section is failed. Failure in more than one section will require the applicant to take the entire test or check again. Any applicant failing only one section shall take the failed section again. Failure in any section of the re-test or re-check including those sections that have been passed at a previous attempt will require the applicant to take the entire test or check again."*

Satisfactory performance

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

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

Unsatisfactory performance

Consistently exceeding the relevant tolerances or failure to take prompt, corrective action when tolerances are exceeded is indicative of unsatisfactory performance. The tolerances represent the performance expected in good flying conditions. Any action or lack thereof, by the applicant, who requires corrective intervention by the examiner to maintain safe flight, shall be disqualifying. If a repeated item is not clearly satisfactory, the examiner shall consider it unsatisfactory

Examiner standardisation

The check shall be rated with 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.

The check shall be rated with a **'fail'** if any of the following applies:

a) the flight test tolerances have been exceeded after the examiner has made do allowance for turbulence or ATC instructions;
b) the aim of the test or check is not completed;
c) the aim of exercise is completed but at the expense of a safe flight, violation of a rule or regulation, poor airmanship or rough handling;
d) an acceptable level of knowledge is not demonstrated;
e) an acceptable level of flight management is not demonstrated;
f) the intervention of the examiner or safety pilot is required in the interest of safety.

The check shall be rated with a **'partial pass'** in accordance with the criteria shown in the relevant skill test appendix of Part-FCL.

2.12 Post flight - debriefing

Refer to the **EASA Flight Examiner Manual Module 1 – Section 16**

2.13 Complaints and Appeals

If at any time during or after the test a complaint of serious nature is made by an applicant concerning the conduct of his test/check, the examiner shall not become involved into a discussion with the applicant. Complaints or appeals shall be dealt with according to the Malta Air Navigation Act and PEL Notice 57.

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Chapter 3 – Test Standards Helicopter

Refer to the **EASA Flight Examiner Manual Module 1 Section 15.0**, and the relevant test standards as found in the relevant TM-CAD LAPL(H), PPL(H), CPL(H) and IR(H) Application and Report Forms

3.1 Introductory notes

3.2 Pre-Flight Operations Checks and Procedures

3.2.1 Helicopter Knowledge

3.2.2 Flight Planning

Aim

Determine the candidate's ability to plan a flight utilizing performance charts, weight and balance calculations, conforming to the VFR rules and retrieving and interpreting aviation weather information necessary for the safe conduct of the flight.

Description

To determine that the candidate demonstrates knowledge related but not limited to:

- pilot licence privileges and limitations; medical certificate and possible limitations.
- operational information, including NOTAMs and AIP;
- all performance factors for the type of helicopter (including mass and balance);
- ensuring that all the required helicopter documentation is valid and available as applicable;
- airworthiness and registration certificates, airworthiness directives;
- Helicopter Flight Manual or other appropriate document (limitations, by heart items)
- relevant and available weather briefing materials;
- classes of airspace;
- preparation of operational flight plan as assigned by the examiner from the departure airport to a destination airport (including navigation logs and charts);
- obtainment and interpretation of weather briefing and factoring conditions into the flight plan;
- preparation of VFR/IFR navigation log (taking account of any NOTAMs);
- establishment of weight and balance for a specific load condition;
- calculation of all relevant performance data required for departure, en-route, and destination;
- fuel calculation.

Performance Criteria

Base the assessment on the candidate's ability to:

- demonstrate practical knowledge of performance and limitations, including the adverse effects of exceeding any limitation;
- demonstrate proficient use of performance charts, tables, graphs, or other data relating to items, such as:
    a. take-off performance - all engine(s) operating
    b. climb performance including segmented climb performance; with all engines operating, with one or more engine(s) inoperative, and with other engine malfunctions as may be appropriate
    c. service ceiling-all engines, engines(s) inoperative, including drift down, if appropriate
    d. cruise performance
    e. fuel consumption, range, and endurance
    f. descent performance
    g. go-around from rejected landings
    h. other performance data

- describe the airspeeds used during specific phases of flight
- describe the effects of meteorological conditions upon performance characteristics and correct appliance of these factors to a specific chart, table, graph, or other performance data compute the centre-of-gravity location for a specific load condition (as specified by the examiner), including adding, removing, or shifting weight
- select an appropriate route, altitude and alternate
- obtain and correctly interpret applicable NOTAM information;

- calculate the estimated time en-route and total fuel requirement based on factors such as power settings, operating altitude or flight level, wind and fuel reserve requirements
- determine the required performance for the planned flight being within the helicopter's capability and operating limitations
- retrieve and interpret items such as weather reports and forecasts; pilot and radar reports surface analysis charts; significant weather prognostics; winds and temperatures aloft; freezing level charts, NOTAMS and SIGMETs
- make a competent "GO/NO-GO" decision based on available information for the planned flight;
- complete a flight plan in a manner that reflects the conditions of the proposed flight;
- demonstrate sufficient practical operational knowledge of the regulatory requirements relating to instrument and visual flying, as applicable;
- retrieve and interpret items pertinent to the flight such as weather reports and forecasts; pilot and radar reports; surface analysis charts; significant weather prognostic charts; winds and temperature aloft; freezing level charts, NOTAMS and SIGMETs

3.2.3 Pre-Flight

Aim

Determine the candidate's ability to systematically complete internal and external checks in accordance with the POH/HFM and SOPs to ensure that the Helicopter is ready for the intended flight. The candidate will also demonstrate knowledge of how to deal with irregularities, if found.

Description

The pre-flight helicopter inspection will include a visual inspection of the exterior and interior of the Helicopter, locating each required item and explaining the purpose of the inspection in accordance with the POH/HFM and SOPs. The candidate will carry out a visual check for fuel quantity, proper grade of fuel, fuel contamination and oil levels in accordance with the POH/HFM. If, due to helicopter design, the POH/HFM does not prescribe a visual check of fuel levels, the candidate will use fuel logs or other credible procedures to confirm the amount of fuel on board the helicopter. At the request of the examiner, the candidate will conduct an oral passenger safety briefing.

Performance Criteria

Base the assessment on the candidate's ability to:

- demonstrate an adequate knowledge of the pre-flight inspection procedures, while explaining briefly the purpose of inspecting the items, which must be checked, how to detect possible defects and the corrective action to take;
- demonstrate adequate knowledge of the operational status of the Helicopter by locating and explaining the significance and importance of related documents, such as airworthiness and registration certificates, operating limitations, handbooks, and manuals, minimum equipment list MEL (if appropriate), mass and balance data and maintenance requirements, tests, and appropriate records applicable to the proposed flight or operation; and maintenance that may be performed by the pilot or other designated crewmember;
- use the approved checklist to inspect the helicopter externally and internally;
- verify the helicopter is safe for flight by emphasizing the need to look at and explain the purpose of inspecting items, such as:
    a. power-plant, including controls and indicators
    b. fuel quantity, grade, type, contamination safeguards, and servicing procedures
    c. oil quantity, grade, and type
    d. hydraulic fluid quantity, grade, type, and servicing procedures
    e. oxygen quantity, pressures, servicing procedures, and associated systems and equipment for crew and passengers (if applicable)
    f. fuselage, landing gear or skids, float devices (if applicable), brakes, and steering system
    g. tires for condition, inflation, and correct mounting, if applicable
    h. fire protection/detection systems for proper operation, servicing, pressures, and discharge indications
    i. pneumatic system pressures and servicing
    j. ground environmental systems for proper servicing and operation
    k. auxiliary power unit (APU) for servicing and operation (if applicable)
    l. flight control systems including trim
    m. anti-ice, deice systems, ice warning systems, servicing, and operation (if applicable)
    n. coordinate with ground crew and ensure adequate clearance prior to moving any devices, such as door, hatches and flight control surfaces;

o. comply with the provisions of the appropriate Operations Specifications, if applicable, as they pertain to the helicopter and operation;
p. demonstrate proper operation of all applicable helicopter systems;
q. note any discrepancies, determine if the helicopter is airworthy and safe for flight, or takes the proper corrective action with respect to unsatisfactory conditions identified; and
r. check the general area around the helicopter for hazards to the safety of the helicopter and personnel.

3.2.4 Engine Start/Shut down

Aim

Determine the candidate's ability to complete the correct engine start procedures including the use of an auxiliary power unit (APU) if applicable or external power source under various atmospheric conditions, conducting warm-up, run-up and system checks, recognize normal and abnormal situations, and take proper action in the event of a malfunction. Determine the candidate's ability to complete the correct engine shut down and post-flight procedure.

Description

The candidate will demonstrate the proper use of the pre-start, start and pre-taxi check-lists and check the appropriate radio communications, navigation and electronic equipment and selection of the appropriate communications and navigation frequencies prior to flight. The candidate will also demonstrate the proper shut down and post-flight procedure.

Performance Criteria

Base the assessment on the candidate's ability to:

- ensure ground safety procedures are followed during the before-start, start, and after-start phases;
- ensure the appropriate use of ground crew personnel during the start procedures (where applicable);
- perform all items of the start procedures by systematically following the approved checklist items for the before-start, start, and after-start phases;
- demonstrate sound judgment and operating practices in those instances where specific instructions or checklist items are not published;
- coordinate with ground crew and ensures adequate clearance prior to moving any devices, such as door, hatches, and flight control surfaces;
- demonstrate adequate knowledge of the pre-take-off checks by stating the reason for checking the items outlined on the approved checklist and explaining how to detect possible malfunctions;
- divide attention properly inside and outside cockpit;
- ensure that all systems are within their normal operating range prior to beginning, during the performance of, and at the completion of those checks required by the approved checklist;
- explain, as may be requested by the examiner, any normal or abnormal system operating characteristic or limitation; and the corrective action for a specific malfunction;
- determine if the helicopter is safe for the proposed flight or requires maintenance;
- determine the helicopter's take-off performance, considering such factors as wind, density altitude, weight, temperature, pressure altitude, and runway condition and length;
- determine airspeeds/V-speeds and properly sets all instrument references, flight director and autopilot controls, and navigation and communications equipment;
- review procedures for emergency and abnormal situations, which may be encountered during take-off, and states the corrective action required of the Pilot-in-Command and other concerned crewmembers;
- perform an avionics and navigation equipment cockpit check; and
- obtain and correctly interpret the take-off and departure clearance as issued by ATC; and
- on completion of the flight, shut down the engine and post-flight the helicopter.

3.3 Hover Manoeuvres, Advanced Handling and Confined Areas

3.3.1 General

Aim

Determine the candidate's ability to fly safely using the correct technique and procedure.

Description

The candidate will demonstrate the flight manoeuvres and procedures in accordance with the HFM.

Performance Criteria

Base the assessment on the candidate's ability to perform the following manoeuvres:

- Lift-off and touch down;
- Take-off and land (various profiles);
- Hover stationary and whilst executing spot turns;
- Hover forward, backwards and sideways;
- Land safely from a simulated engine failure from the hover;
- Quick stops into and downwind;
- Sloping ground or crosswind take-offs and landings (*cannot fail*);
- Take-off (various profiles);
- Cross wind and downwind take-off (if practical);
- Approach (various profiles);
- Limited power take-off and landing;
- Basic, range, low speed and 360° turns autorotations;
- Autorotative landing;
- Practice forced landing with power recovery, and
- Power checks, reconnaissance technique, approach and departure technique.

3.3.2 Air-Taxi-Out

Aim

Determine the candidate's ability to manoeuvre the helicopter safely off the ground.

Description

The candidate will air-taxi the helicopter to and from the runway in use and as otherwise required during the check. While air-taxiing, the candidate will follow taxiing procedures. In addition, the taxi check will include the use of the taxiing checklist, taxiing in compliance with clearances and instructions issued by the appropriate air traffic control unit or by the examiner.

Performance Criteria

Base the assessment on the candidate's ability to:

- demonstrate adequate knowledge of safe air-taxi procedures (as appropriate to the helicopter);
- demonstrate proficiency by maintaining correct helicopter control;
- maintain proper spacing on other helicopter, obstructions, and persons;
- accomplish the applicable checklist items and perform recommended procedures;
- maintain desired track and speed;
- perform an instrument check;
- comply with instructions/clearances issued by ATC (or the examiner simulating ATC);
- observe runway hold lines, localizer and glide slope critical areas and other surface control markings and lighting;

3.3.3 Hover

Aim

Determine the candidate's ability to hover safely using the correct technique and procedure for the actual wind conditions, helipad surface, slope and length (or helipad or landing site size) and can assess the possibility of further conditions such as wind shear and wake turbulence.

Description

The candidate will demonstrate a hover (as requested by the examiner) performed in accordance with the HFM.

Performance Criteria

Base the assessment on the candidate's ability to demonstrate adequate knowledge of the:

- hover in normal and crosswind conditions;
- spot turns;
- forward, sideways and backwards hover manoeuvring; and
- simulated engine failure from the hover.

3.3.4 Quick stops

Aim

Determine the candidate's ability to quick stop using the correct technique and procedure.

Description
The candidate will demonstrate a quick stop into and downwind (as requested by the examiner) performed in accordance with the HFM.

Performance Criteria
Base the assessment on the candidate's ability to demonstrate adequate knowledge of the:
- quick stop into and downwind close to the ground,
- at a safe height.

3.3.5 Take-Off

Aim
Determine the candidate's ability to take-off safely using the correct technique and procedure for the actual wind conditions, helipad surface, slope and length (or helipad or landing site size) and can assess the possibility of further conditions such as wind shear and wake turbulence. One take-off must be accomplished at maximum take-off mass or simulated maximum take-off mass. The examiner may select different take-off options.
Description
The candidate will demonstrate a take-off (as requested by the examiner) performed in accordance with the HFM.

Performance Criteria
Base the assessment on the candidate's ability to:
- demonstrate adequate knowledge of normal and crosswind take-offs and climbs including airspeeds), configurations, and emergency/abnormal procedures (as appropriate to the helicopter);
- note any surface conditions, obstructions, or other hazards that might hinder a safe take-off;
- demonstrate take-off from sloping ground and unprepared site;
- verify and correctly apply correction for the existing wind component to the take-off performance;
- complete required checks prior to starting take-off to verify the expected power-plant performance;
- perform all required pre-take-off checks as required by the appropriate checklist items;
- align the helicopter facing the wind as practically as possible;
- adjust the power-plant controls as recommended by the POH/HFM or other approved guidance for the existing conditions;
- monitor power-plant controls, settings, and instruments during take-off to ensure all predetermined parameters are maintained;
- adjust the controls to attain the desired pitch attitude at the predetermined airspeed/V-speed to attain the desired performance for the take-off segment;
- perform the required pitch changes and, as appropriate, perform or call for and verifying the accomplishment of gear retractions (if applicable), power adjustments, and other required pilot-related activities at the required airspeed/V-speeds within the tolerances established in the POH or HFM;
- use the applicable noise abatement and wake turbulence avoidance procedures;
- accomplish or calls for and verifies the accomplishment of the appropriate checklist items;
- maintain the appropriate climb segment airspeed/V-speeds;
- maintain the desired heading and the desired airspeed/V-speed within given limits or the appropriate V-speed range.

3.3.6 Approach and Landing

Aim
Determine the ability of the candidate to fly various profile approaches and to land under normal or crosswind conditions in accordance with the HFM.

Description
The candidate will demonstrate approaches and landings performed in accordance with procedures and limitations according HFM/POH or SOPs of the training syllabus of the ATO or the operator for the approach facility used.

Description
The candidate will demonstrate:
- one normal landing (various profiles);
- one crosswind landing, where practicable, under existing meteorological, runway and airport traffic conditions;

- limited power landing;
- autorotative landing (basic, range, low speed and 360° turns), and
- practice forced landing with power recovery.

Performance Criteria
Base the assessment on the candidate's ability to:
- demonstrate adequate knowledge of normal and crosswind approaches and landings including recommended approach angles, airspeeds, V-speeds, configurations, performance limitations, and ATC or examiner instructions;
- consider factors to be applied to the approach and landing such as displaced thresholds, obstacles, meteorological conditions, NOTAMs, wake turbulence, wind shear, microburst, gust/wind factors, visibility, runway surface, braking conditions, and other related safety factors (as appropriate to the helicopter);
- establish the approach and landing configuration appropriate for the runway or helipad and meteorological conditions, and performs proper power adjustments;
- perform the helicopter checklist items relative to the phase of flight;
- maintains a ground track that ensures the desired traffic pattern will be flown, considering any obstructions and ATC or examiner instructions;
- verify existing wind conditions, makes proper correction for drift, and maintains a precise ground track;
- maintain a stabilized approach and the desired airspeed;
- accomplish a smooth, positively controlled transition from final approach to touchdown or to a point in the opinion of the examiner that a safe full stop landing could be made;
- Go-around if necessary;
- Carry out power checks and the reconnaissance technique;
- land on a sloping ground and unprepared site;
- bring the helicopter to a safe stop, and
- leave the runway on taxiway/intersection if applicable as mentioned during the approach briefing or as instructed by ATC or the examiner.

3.3.7 Air-Taxi In – Block On

Aim
Determine the candidate's ability to conduct after landing air-taxi in, arrival/engine shutdown, post-flight and flight close procedures as appropriate.

Description
The candidate will demonstrate the ability to manoeuvre the helicopter under its own power to an arrival area for parking, shut down the engine(s) and ancillary systems and conduct required post flight procedures such as securing the helicopter.

Performance Criteria
Base the assessment on the candidate's ability to:
- demonstrate proficiency by maintaining correct and positive control;
- consider the safety of nearby persons or property by maintaining proper look-out, spacing between helicopter and obstructions;
- accomplish the applicable checklist items and performs the recommended procedures;
- maintain an appropriate taxi speed;
- comply with instructions issued by ATC (or the examiner simulating ATC);
- observe runway hold lines, localizer and glide slope critical areas, and other surface control markings and lighting to prevent a runway incursion;
- maintain constant vigilance and helicopter control during the taxi operation;
- complete the applicable after-landing checklist items in a timely manner and as recommended by the manufacturer, and
- record forms/logs and flight time/discrepancies.

3.4 Navigation En-Route Procedures

3.4.1 Navigate and Map read

Aim

Determine the candidate's ability to navigate the helicopter at various altitudes or heights by map reading, dead reckoning and the use of navigation aids.

Description
The area and route to be flown should be chosen by the FE. En-route navigation will commence on the ground with meticulous flight planning and the preparation of the Flight Log. The pilot must show satisfactory knowledge and ability to safely fly the route selected. The candidate will be required to demonstrate the ability to navigate and orientate the helicopter at various altitudes and heights, map read, dead reckon and use radio navigation aids (where available). Refer to Form TM/CAD/246 page 4 **Contents of the Skill Test for the issue of a PPL** (H) (a) and (b).

Performance Criteria
Base the assessment on the candidate's ability to ably fly the selected route whilst;
- Maintaining the correct height, speed;
- Observing airspace and regulations;
- Observing Altimeter setting;
- Monitoring flight progress;
- Correcting en-route deviations and track errors;
- Observing weather conditions;
- Preparing and using navigation aids;
- Liaising with ATC, and
- Diverting as necessary.

3.5 Flight Procedures and Maneouvres

3.5.1 General
Aim
Determine the candidate's ability to fly upper air manoeuvres safely using the correct technique and procedure.

Description
At an operationally safe altitude recommended by the manufacturer, training syllabus, or other training directive, but in no case lower than 1,000 feet AGL, the candidate will complete level flight and turns, including turns by sole reference to instruments, and also climbing and descending turns to specified headings in accordance with the Visual Flight Rules. The examiner will specify the selected altitude, airspeed and final heading before entering commencing the manoeuvre.

Performance Criteria Initial Climb
Base the assessment on the candidate's ability to:
- divide attention appropriately between outside visual references and instrument indications;
- maintain proper helicopter control and flight within operating limitations;
- demonstrate an ability to fly level whilst controlling heading, altitude or height and speed;
- establish the recommended entry airspeed;
- change headings;
- transition smoothly and accurately from straight and level flight to climbing and descending turns to specified headings;
- roll into the turn, using smooth and coordinated pitch, bank and power to control the climb or descent to the selected altitude within given limits;
- establish, where appropriate, a rate of climb or descent consistent with the Helicopter operating characteristics and safety;
- roll out of the turn at the selected heading;
- Level off at the selected altitude;
- monitor power-plant controls, settings, and instruments during the climbing and descending turns to specified headings to ensure all predetermined parameters are maintained;
- perform the required pitch/power changes and, as appropriate, performs or calls for and verifies the accomplishment of other required pilot-related activities at the required airspeed/V-speeds within the tolerances established in the POH or HFM and SOPs;
- avoid any indication of an abnormal flight attitude, or exceeding any structural or operating limitation during any part of the manoeuvre;
- use the applicable noise abatement and wake turbulence avoidance procedures, as required;
- accomplish or call for and verify the accomplishment of the appropriate checklist items, and

- comply with ATC clearances and instructions issued by ATC (or the examiner simulating ATC).

3.6 Abnormal and Emergency Procedures (Simulated where appropriate)

3.6.1 Abnormal/Emergencies procedures

Aim

Determine the candidate's ability to demonstrate practical knowledge of abnormal and emergency procedures and to complete recommended checks and procedures in accordance with the POH, HFM, or other applicable publications in event of system malfunctions or other emergencies. Determine the candidate's ability and operate helicopter systems in accordance with the POH/HFM.

Description

System malfunctions will consist of a selection adequate to determine that the pilot has satisfactory knowledge and ability to safely handle malfunctions. The candidate will be required to demonstrate the use of as many simulated abnormal and emergency procedures as is necessary to confirm that the pilot has an adequate knowledge and ability to perform these procedures.

Performance Criteria

Base the assessment on the candidate's ability to:

- demonstrate adequate knowledge of the emergency procedures appropriate to the approved HFM (as may be determined and briefed before the flight by the examiner) relating to the Helicopter type;
- identify the malfunctions;
- review causal factors, identify possible alternate course of action;
- apply correct checks and procedures in accordance with the POH/HFM, or other approved publication;
- consider and apply any restrictions or limitations to the operation of a system(s) and procedures in order to continue the flight;
- demonstrate knowledge and ability in the use of the electronic checklist and alerting system, as applicable; and
- develop a reasonable course of action for the remainder of the flight including a risk assessment (e.g.: FORDEC – Facts-Options-Risks-Decision-Execution-Check)

3.6.2 Engine, Fuel, Electrical and Hydraulic systems mulfunctions

Aim

Determine the candidate's ability to maintain control of the helicopter and carry out the systems failure procedures in accordance with the POH/HFM and/or SOPs.

Description

The pilot will demonstrate the ability to safely handle isolated or multiple systems malfunctions during any phase of the flight.

Performance Criteria

Base the assessment on the candidate's ability to:

- recognize the system malfunction as simulated by the examiner;
- determine the reason for the system malfunction;
- complete vital action checks from memory;
- set engine controls as necessary, and
- perform a safe landing if necessary.

3.6.3 Engine Failure, Tail rotor control failure or loss

Aim

Determine the candidate's ability to maintain control of the helicopter and carry out the appropriate engine failure procedures in accordance with the POH/HFM and/or SOPs. This may be accomplished through FFS (Full flight simulation) or discussion only. For Multi engine helicopters, demonstrate the ability to safely handle engine failures at take-off and landing in accordance with the POH/HFM and/or SOPs.

Description

The pilot will demonstrate the ability to maintain control and safely handle simulated engine failures and/or simulated tail rotor failure or loss, any time during the check.

Performance Criteria

Base the assessment on the candidate's ability to:

- recognize an engine failure or the need to shut down an engine as simulated by the examiner;
- complete engine failure vital action checks from memory;
- set engine controls, reduce drag as necessary, correctly identify and verify the inoperative engine after the failure (or simulated failure);
- maintain the operating engine within acceptable operating limits;
- establish the best autorotation airspeed as appropriate to the helicopter and condition of flight;
- establish and maintain the recommended flight attitude and configuration for the best performance for all manoeuvring necessary for the phase of flight;
- follow the prescribed helicopter checklist, and verify the procedures for securing the inoperative engine;
- determine the cause for the engine failure and if a restart is a viable option;
  For Multi-engine helicopters
- maintain desired altitude within given limits, when a constant altitude is specified and is within the capability of the helicopter;
- maintain the desired airspeed and heading within given limits;
- demonstrate proper engine restart or shutdown procedures (whatever appropriate) in accordance approved procedure/checklist or the manufacturer's recommended procedures and pertinent checklist items; and monitor all functions of the operating engine and make necessary adjustments,
  and/or
- recognize the tail rotor failure as simulated by the examiner;
- complete tail rotor failure vital action checks from memory;
- enter and establish the best autorotation airspeed as appropriate to the helicopter and condition of flight;
- establish and maintain the recommended flight attitude and configuration for the best performance for all manoeuvring necessary for the phase of flight;
- follow the prescribed helicopter checklist, and verify the procedures for securing the inoperative engine;
- If necessary, perform an out landing.

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Chapter 4 – LAPL and Private Pilot Licence (Helicopter) – LAPL/PPL (H)

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

All items of the skill test shall be performed utilising the flight test standards of Chapter 3 and flight test tolerances depicted on the skill test form.

4.1 Foreword

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

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

1. It can be assessed through normal situations of the flight. For instance, items 2.c. (climbing turns and levelling off) have a chance to be observed within the very first minutes of the flight.
2. It is assessed through the whole flight, or parts of it. For instance, items 2.a or 3.h (ATC liaison) or item 3.b maintaining altitude, heading and speed.

4.2 Helicopter

Quick Reference: Part-FCL reference	FCL.125 // FCL.235 // FCL.1015
Who can test:	Flight Examiner (FE) if they are individually authorised for this role. When an attempt is taken as two flights both parts are to be conducted by the same examiner.

4.3 General

The route to be flown for the skill test shall be chosen by the FE.

The applicant shall be responsible for the flight planning and shall ensure that all equipment and documentation for the execution of the flight are on board. The navigation section of the test shall have a duration of at least 30 minutes which allows the pilot to demonstrate his ability to complete a route with at least two identified waypoints and may be flown as agreed between applicant and FE with regards to the LAPL (H) and three waypoints for the PPL (H).

An applicant shall indicate to the FE the checks and duties carried out, including the identification of radio facilities. Checks shall be completed in accordance with the flight manual or the authorised checklist for the Helicopter on which the test is being taken. During pre-flight preparation for the test the applicant shall be 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 helicopter used.
GM1 FCL.1015 requires the duration of the flight to be at least 90 minutes.

4.4 Check of theoretical knowledge

Ensure that questions asked are in relation to the type of helicopter being used for the flight test.

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Chapter 5 – Commercial Pilot Licence – CPL (H)

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

All items of the skill test shall be performed utilising the flight test standards of Chapter 3 and flight test tolerances depicted on the skill test form.

5.1 Helicopter

Part-FCL reference	Appendix 4 to Part-FCL
Who can test:	Flight Examiner (FE) if they are individually authorised for this role. When an attempt is taken as two flights both parts are to be conducted by the same examiner.

5.2 General

The skill test and proficiency check will be performed according to Appendix 4 to Part-FCL.

In situations where the examiner does not occupy a pilot seat, he/she is responsible for briefing the safety pilot (Pilot-in-Command) on his duties throughout the test flight. Applicants will be assessed on all aspects of the helicopter operation. Sound basic and handling skills are essential as well as airmanship, navigation, instrument flying, correct RT phraseology, cockpit and overall flight management. The examiner may elect to evaluate certain aspects by asking questions.

The CPL skill test form is divided into six 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 - Relevant type items

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 in two attempts will require further training. The sequence of sections may vary depending on circumstances and the examiner's briefing will include the expected profile.

GM1 FCL.1015 requires the duration of the flight to be at least 90 minutes.

The route to be flown shall be chosen by the FE and the destination shall be a controlled aerodrome. The applicant shall be responsible for the flight planning and shall ensure that all equipment and documentation for the execution of the flight are on board.

Items in section 2 (c) and (e) (iv), and the whole of sections 5 and 6 may be performed in an FSTD. The FSTD must be approved for the purpose and must be of the same helicopter type as used for the remainder of the skill test.

Use of the helicopter checklists, airmanship, control of the helicopter by external visual reference, anti-icing / de-icing procedures if applicable, and principles of threat and error management apply in all sections.
The FE shall take no part in the operation of the helicopter except where intervention is necessary in the interests of safety or to avoid unacceptable delay to other traffic.

The CPL Skill Test is very demanding. It is acknowledged that even the most 'professional' or 'talented' pilots can make mistakes. This does not necessarily result in a "fail".

5.3 Conduct of CPL Skill Test

General

Transits to and from Sicily (or any other location or route as applicable) will be required so that the En-route section may be completed over land. These transits can be used to complete other sections of the test.

Section 1 – Departure

Performance planning must be carried out in accordance with the ATO Operations Manual. It is expected that the Operations Manual will require planning in accordance with EASA PART-OPS as the CPL course is designed to train pilots for commercial air transport.

Section 2 – Airwork

Both visual and instrument airwork can be completed during the transits to and from Sicily, once clear of the immediate vicinity of Luqa (or any other airport as approved by TM-CAD and listed in the ATO Manuals). By judicious use of lookout turns etc, a general movement towards one's destination can be achieved. It is assumed that visual straight & level, climbing, descending and medium turning will be assessed during the entire flight rather than as separate airwork items, although a VX climb may be used to help satisfy the slow flight requirement. During the airwork, the examiner will be responsible for ATC liaison and navigation. Instrument air work must be carried out with the applicant wearing TM-CAD approved foggles or hood. During limited panel work the PFD, if fitted, must be covered with a TM-CAD approved screen rather than just dimmed. If the helicopter is not fitted with a turn coordinator/turn needle, then use of a standby AI is acceptable.

Section 3 – En-route

The visual navigation legs of the En-route Section must be flown over Sicily. The transit to Sicily should be 'all aids' and the coast-in point can be set up as a GPS waypoint. Around 20 miles from Sicily any airwork should be terminated and the applicant briefed on his present position. He should then fly to the coast-in point. Once it is visually identified, all navigation aids should be disabled by de-tuning (VOR, DME, and ADF) or by blanking the MFD (winding the range out to 300nm or setting the traffic page is quite effective). Wind information should be removed from the PFD if possible. The first leg should be around 20 minutes duration and the applicant should use a recognised method of navigation. At or before reaching the first waypoint the applicant should be given a diversion destination. This destination should be a geographical feature around 20 minutes distant. There should be at least 30° between inbound and outbound tracks. On the diversion leg the applicant may use terrestrial radio aids to assist his navigation, but not processed GPS information. If the applicant has successfully reached the first waypoint, the diversion leg can be curtailed once it is apparent that the applicant is highly likely to reach the diversion destination. Section 3 also includes fixing and tracking using terrestrial radio aids while in instrument flight (wearing foggles or a hood); if no suitable aid is available to track, then a GPS 'direct to' may be substituted as long as the MFD remains hidden. These items are best carried out during the transits at the same time as the instrument airwork.

Section 4 – Approach and Landing

This section should, whenever possible be carried out at an airfield other than Luqa, such as Comiso. The arrival can be started directly from the end of the en-route diversion or after part of the airwork. Before handing responsibility for ATC liaison and navigation to the applicant, the examiner should brief him on current position and ATC service received. One approach, usually the single-engine landing (for ME helicopters), should be 'saved' for the final arrival at Luqa. However, unless the applicant's performance during the arrival at Comiso left doubt in the examiner's mind, the arrival procedure at Luqa should not form part of the assessment. Resetting the engine to 'failed' (simulated) during the arrival at Luqa is the examiner's responsibility and no emergency drills are required from the applicant. Examiners may need to use their judgement when considering whether ATC instructions are 'reasonable'. If they consider that the instructions are outside of normal aviation practice, then they may need to assist the applicant without penalty to him. Examiners should confirm touch-and-go procedures with the applicant before departure.

Section 5 – Abnormal Procedures

On an ME Helicopter, this section requires a fire and a system failure. The fire can be usefully combined with the actual engine shutdown required in Section 6. However, airmanship/TEM considerations must be adhered to: the shutdown (simulated touch drills with power limitations only) should be carried out at a safe height (minimum 2000ft agl / amsl or as required by the ATO Operations Manual) and within sensible range of an airfield with suitable weather conditions. The examiner will need to brief the required procedures before flight. System failures will be touch drills, but the applicant should be expected to carry out the appropriate airmanship/TEM actions by making in-cockpit radio calls and changing track if necessary. System failure drills are not 'memory items. Circuit breakers should not be pulled to simulate emergencies.

Section 6 –Relevant Type items

This section is to be included if the test is being carried out on a new type. It is important that the candidate demonstrates an adequate knowledge of the type in question with special emphasis placed on pre-flight inspection procedures, the operational limitations, mass and balance data, maintenance requirements and use of the approved checklist and POH/HFM.

5.4 When proficiency is not reached

Repeat Items

Repeats are at the examiner's discretion but should be used sparingly on a skill test, and only when some external factor is judged to have affected the applicant's performance.

Refer to the **EASA Flight Examiner Manual Module 1 – General 15.2** for the Repeat item flow chart.

Partial Pass

An applicant gaining a partial pass will be required to retake the failed section. He/she will be expected to put the helicopter in a position from which this section can be carried out. Once the failed section has been flown, the test is complete; however, if the applicant elects to fly the helicopter back to Luqa, then he/she will be assessed.

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Chapter 6 – Instrument Rating – IR (Helicopter)

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

All items of the skill test shall be performed utilising the flight test standards of Chapter 3 and flight test tolerances depicted on the skill test form.

6.1 Helicopter

Part-FCL reference	Appendix 7 to Part-FCL
Who can test:	IRE (an IRE or suitably qualified TRE may conduct the IR revalidation or renewal proficiency check)

6.2 General

The skill test and proficiency check will be performed according to Appendix 7 to Part-FCL.

The skill test form is divided into six sections:

Section 1 - Pre-flight operations and departure
Section 2 - General handling
Section 3 - En-route IFR procedures
Section 4 - Precision approach procedures
Section 5 - Non- precision approach procedures
Section 6 - Flight with one engine simulated inoperative (ME Helicopters)

An applicant for an IR shall have received instruction on the same type of helicopter to be used in the test.

An applicant 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 one section shall only repeat the failed section.

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 60 minutes.

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 fly the aircraft from a seat where the PIC functions can be performed and must carry out the test as if there was no other crew member. The examiner shall take no part in the operation of the aircraft, except when intervention is necessary in the interests of safety or to avoid unacceptable delay to other traffic.

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.

6.3 Conduct of Test/Check IR

<u>The Helicopter</u>
The helicopter for the IR-skill test/proficiency check shall be suitably equipped for instrument flight.

<u>The briefings</u>
The pre-flight briefing should be according to Chapter 2 of this manual.

If the examiner will not occupy a pilot seat during the test/check he/she must ensure that the safety pilot is briefed on the required methods of:

1. simulation of instrument conditions
2. simulation of an engine failure
3. removal of radio aid information when required
4. actions to take in case of an actual emergency
5. use of the radio if required to perform the test
6. any other item to be determined by the examiner

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

The skill test

The flight test items of the skill test/proficiency check must be performed according to the flight test standards in Chapter 3.

General

This test is intended to simulate a practical flight. To this end, the first preference should always be to fly the En-route Section as a transit to another airfield (Helipad or approved landing site) rather than as a triangular navigation exercise around the Malta FIR. Both Comiso and Catania Fontanarossa are within practical range. However, if it is obvious that weather conditions preclude an approach in Sicily, or ATC will not accept the movement, a route within the FIR would be acceptable as a last resort. Both precision (PBN and/or ILS) and a non-precision (VOR, NDB, LLZ, GPS) approaches are required. At least one approach must be procedural. The approaches can be flown in any order. Simulated weather conditions for the flight are: cloud throughout the levels flown and at minimums for the approaches; freezing level as actually experienced.

Section 1 – Departure

Performance planning must be in accordance with the ATO Operations Manual. The applicant must complete and submit an IFR flight plan. If possible, a SID should be flown. The applicant should don TM-CAD approved foggles/hood after take-off once the Helicopter has been put in the climb configuration. The applicant should check the OAT regularly and check for ice when appropriate.

Section 2 – Airwork

It is assumed that full panel straight & level, climbing, descending and turning will be assessed during the entire flight rather than as separate airwork items. Item (d) will be covered by recovery from vortex ring. Item (c), full panel unusual attitudes, will be covered by successful completion of Item (e). Before starting the limited panel manoeuvres, the PFD (or main AI and HSI/DI plus RMI) must be covered with TM-CAD approved screens, dimming is not sufficient. If a turn coordinator/turn needle is fitted then this should be used; otherwise, use of a standby AI is acceptable. Instrument airwork should be carried out on the transit back from Sicily or during the last navigation leg. The examiner is responsible for navigation and ATC liaison during the section. After the airwork the aircraft should be sufficiently far from Luqa for the applicant to carry out all the necessary arrival procedures within a reasonable time. The applicant should be briefed on his position and ATC service received before being given back responsibility for navigation and ATC liaison.

Section 3 – En-route

During the En-route Section the applicant should track towards and away from a facility. GPS can be used as required if the equipment has a current database. Autopilot may be used in the cruise and descent in Heading, Altitude or Vertical Speed modes. Position reports are as required by ATC. The examiner may simulate a build-up of ice and require appropriate touch-drills. The transit to Sicily should normally be made along an ATS route (usually N982). This will require a transit at the examiners' discretion. If, during the climb, it becomes apparent that the flight level selected will not be reached then a lower level, outside CAS, should be negotiated. Although the return from Sicily will normally be flight planned as IFR, examiners should consider cancelling IFR on departure from Comiso/Catania and transiting at a lower, VFR level during which the airwork can be carried out. IFR can be resumed before the recovery to Luqa.

Section 4 – Precision Approach

The precision approach (PBN and/or ILS) may be flown procedurally or using radar vectors. It can be the first or second approach flown. If Comiso or Catania is available, then it would be preferable to fly the ILS second as a vectored asymmetric approach at Luqa. GPS should be disabled and the MFD hidden if a procedural approach is flown. The approach must be hand-flown without the use of a flight director.

Section 5 – Non-precision approach

This can be a VOR, LLZ, NDB or GPS approach, flown procedurally or using radar vectors. It can be the first or second approach flown. If Comiso or Catania is available, it would be preferable to fly the non-precision approach first as a hold and procedural approach. If both approaches are to be at Luqa, it would be preferable to fly the hold and procedural approach first (precision or non-precision). If equipment allows, the hold should be a single-needle exercise. Wind information should be removed from the PFD if possible. Loss of glidepath information for the LLZ approach can be simulated on the G950/G1000 by a post-it type label being placed over the glidepath indicator. GPS should be disabled (if possible) and the MFD hidden during the hold and procedural approach. The approach must be hand-flown without use of a flight director. During the pre-flight brief the examiner must ascertain whether a CDFA is planned and what increment the applicant plans to add to MDA/H.

6.4 When proficiency is not reached (IR)

Repeat Items

Repeats are at the examiner's discretion but should be used sparingly on a skill test, and only when some external factor is judged to have affected the applicant's performance.

Partial Pass

An applicant gaining a partial pass will be required to retake the failed section. He will be expected to put the helicopter in a position from which this section can be carried out. Once the failed section has been flown, the test is complete; however, if the applicant elects to fly the helicopter back to Luqa, he will be assessed.

6.5 Combined Tests

Whilst it is usual to combine a type rating and instrument rating renewal/revalidation proficiency check, combining CPL and IR skills tests or Type rating revalidations and initial IR skills tests may not be in the best interests of the applicant.

6.6 CPL plus Initial IR

The CPL skills test, by itself, is likely to take at least 2:45 block time. Although there are some elements common to both tests (approach configuration stalls, limited panel, asymmetric work) and one of the transits to/from Sicily could be used for IR Section 3, the requirement to fly a hold and 2 instrument approaches will add at least 35 minutes to the flight. In addition, unsatisfactory performance in any of the 'shared' items will require them to be re-flown visually so that they can be assessed for the CPL. Expecting an ab-initio applicant to be on the top of his game for over 3 hours is unrealistic and so these tests should not normally be combined. Any request to do so (for example, an experienced ICAO licence holder converting to an EASA licence) should first be approved by TM-CAD.

Chapter 7 – Assessment of competence of instructors (helicopter)

For guidance refer to:

- Appendix 4 of this notice

7.1 Conduct of the Assessment

The assessment of competence must be performed according to FCL.935. The following books and documents shall be available for the briefings and the flight:

a) AIP
b) AICs
c) Navigation material, charts, computer
d) Flight handbooks
e) Instructor guides
f) Training syllabus
g) Pilot licences

7.2 Theoretical Knowledge oral test

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

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

If the test is used for the issue or revalidation of an IRI, the questions shall also focus on instrument flying techniques, IR regulations and procedures.

7.3 The Lecture

Refer to the **EASA Flight Examiner Manual Module 7.4 – Section 4 and 5**

The accommodation for the theoretical part of the test shall be a suitable location for giving a test lecture to students. Appropriate literature and training aids being representative for the test helicopter shall be used for the lecture and briefings.

7.4 The pre-flight briefing

The pre-flight briefing should be a short practical briefing of about 15 to 20 minutes.

7.5 The flight

The assessment shall consist of a minimum of 1 hour of flight instruction. The chosen exercise briefed during the pre-flight briefing shall be the main exercise of the flight.

Before the flight the examiner shall clearly identify:

1. which exercises the applicant is to fly without unnecessary instructional comments,
2. which exercises are to be taught to the student, and
3. which exercises may be demonstrated to the student but with necessary accompanying instructional comments.

During the skill test the applicant shall occupy the seat normally occupied by the instructor. The examiner acting as a student must act according to the instructions given by the applicant. The examiner should not deliberately set traps, but act as a normal student and introduce common student errors for the applicant to identify and correct.

The applicant shall:

1. demonstrate instructional knowledge of common errors made by students in performing exercises.
2. demonstrate and simultaneously explain the flight exercises.
3. analyse and correct simulated common errors.

The applicant will be expected to demonstrate personal standards of flying ability and airmanship to the level of a professional pilot.

The assessment of the flight will contain:

1. Arrangement of demo
2. Synchronisation of speech with demo
3. Correction of faults
4. Helicopter handling
5. Instructional technique
6. General airmanship/safety
7. Positioning, use of airspace

7.6 Post Flight Briefing

Refer to the **EASA Flight Examiner Manual Module 7.4 Sections 6**

Chapter 8 – Test Items and Aircraft Safety

8.1 General

Refer to the **EASA Flight Examiner Manual Module 1 – General, 14.0 TEST ITEMS**

8.2 Aircraft Safety

The safety of the flight must be the prime consideration at all times. The Examiner is expected to use good judgement when simulating any emergency or abnormal procedure, having regard to local conditions and aircraft safety throughout. The Examiner must be prepared to intervene if safety will be compromised.

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APPENDICES

Appendix 1 - Airmanship

Airmanship is the consistent use of good judgment and well-developed skills to accomplish flight objectives. This consistency is based on a cornerstone of uncompromising flight discipline and is developed through systematic skill acquisition and proficiency. A high state of situational awareness is obtained through knowledge of oneself, the aircraft, the whole environment, including

other crewmembers, if applicable, and associated risks. Examiners themselves are required to exercise proper airmanship competencies in conducting tests/checks as well as expecting the same from applicants.

Pass/Fail judgements based solely on airmanship issues must be carefully chosen since they may be subjective. It is therefore the examiner's role to observe how the applicant manages the resources available to him/her to achieve a safe and uneventful flight. The examiner must conclude that the success of the flight was a result of good airmanship and not good luck. If the applicant shows early and consistent awareness of airmanship (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.

<u>The foundations of airmanship</u>

KNOWLEDGE

- Knowledge of aircraft
  - Sub-systems, emergency procedures, automation, aircraft flight characteristics and operating limits.
- Knowledge of environment
  - Physical environment and the effects on aircraft control.
  - Regulatory environment.
  - Organisational environment and the challenges posed.
- Knowledge of risk
  - Discipline, skill and proficiency, knowledge, situational awareness, judgement, aircraft.

SKILLS

- Physical skills
  - Navigation skills
  - Instrument flying
  - Emergency handling / recovery
- Flight deck management skills
  - Avoiding the pitfalls of automation (over-reliance, complacency bias)
  - Information management skills
- Communication skills
  - Vigilance in monitoring communication
  - Using appropriate phraseology
  - Using clear & concise communication
  - Active listening - inquiry through communication
- Cognitive skills
  - Understanding and maintaining situational awareness
  - Problem solving / decision-making skills
  - Understanding and managing workload
  - Self-assessment
- Team skills
  - Performance monitoring
  - Leadership/initiative
  - Interpersonal skills
  - Co-ordination & decision-making
  - Team communication

ATTITUDE

Positive attitudes foster trust among flight crew. This trust can increase personal confidence and the ability to accomplish a task efficiently and safely. Even though trust can aid in team building, team members shall never accept a decision, action or proposed action without checking to see if it is correct for the situation. A good rule is to trust but verify. Pilots must be able to recognize and correct their negative attitude. Understanding the five main negative and hazardous attitudes, the antidotes and the impact on airmanship is essential. The below negative attitudes have been shown to increase accident likelihood.

Hazardous attitude	Antidote
Anti-authority: "Regulations are for someone else."	"Follow the rules. They are that way for a reason."
Impulsivity: "I must act now, there's no time"	"Not so fast. Think first"
Invulnerability: "It won't happen to me"	"It could happen to me"
Macho: "I'll show you. I can do it"	"Taking chances is foolish"
Resignation: "What's the use?"	"Never give up. There is always something I can do"

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Appendix 2 - Assessment System

The following four characteristics, when used carefully in the conduct of a flight test, will result in an accurate and effective evaluation.

1. RELIABILITY

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

Human factors can have a significant effect on flight test reliability. Some of these factors are:

- fatigue - insufficient sleep or rest prior to the test
- emotions - work or personal problems at home
- health - cold, flu, etc.
- time of day - very early in the morning, or last trip of the day
- distractions - noise, interruptions, etc.

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

Testing for the purpose of licensing must remain clearly distinguished from training in order to maintain the reliability of an evaluation. For this reason, an item will not be repeated unless one of the following conditions applies:

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

2. VALIDITY

Assessment of ground and air items must remain within the limits of the appropriate flight test standards. The scope of the test must be such that when candidates pass, they have met the skill requirements for the issuance of the certificate, licence or rating sought.

3. COMPREHENSIVENESS

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

4. OBJECTIVITY

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

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

Appendix 3 - The components of Threat and Error Management (TEM) Model

There are three basic components in the TEM framework: Threats, Errors, and Undesired Aircraft State (UAS). Hereunder is a detailed explanation of each component.

THREATS

Threats are defined as "*events that occur beyond the influence of the flight crew, they increase operational complexity, and must be managed to maintain the safety margin*". During typical flight operations, flight crew may encounter 3 categories of threats.

1) **Anticipated Threats** are events that are known or expected. Such as: forecasted weather, reported icing, low-visibility operations, known congested airports, complex SIDs/STARs/missed approaches, and more.
   Preparation and planning need to be applied to manage these types of threats.
2) **Unanticipated Threats** occur unexpectedly, suddenly or without warning. Examples can include aircraft malfunctions, un-forecasted weather/turbulence/icing, automation anomalies, loss of aircraft separation, laser attacks, unmanned aircraft systems, and more.
   Application of skill and knowledge acquired through training and/or experience are required to manage these situations.
3) **Latent Threats** are subtle or hidden threats that are not directly obvious. These are usually embedded in the organisation's culture or in the individual. Latent threats may be uncovered during safety analysis or in very particular scenarios. Examples of latent threats are equipment design issues, organisational changes, stress, over or under confidence, lack of recent experience, optical illusions, fatigue and more.

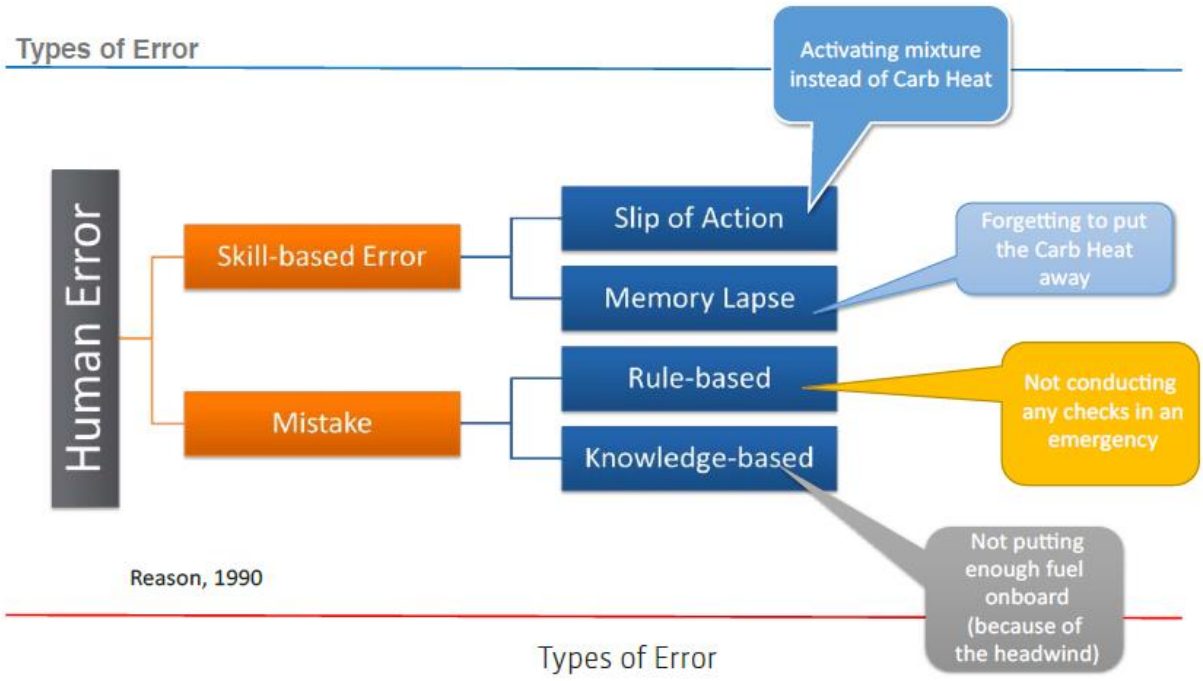
ERRORS

Errors are defined "*actions or inactions by the flight crew that lead to deviations from organizational or flight crew intentions or expectations*". Unmanaged or mismanaged errors, have the potential to reduce the margins of safety and could lead to additional errors or UAS.

Errors can be divided into the two main categories:

• **Slips** and **lapses** are failures in the execution of the intended action. Slips are actions that do not go as planned, while lapses are memory failures. For example, 'pulling the mixture instead of the (intended) carburettor heat is a slip. Forgetting to apply the carburettor heat is a lapse'.

• **Mistakes** are failures in the plan of action, resulting in an unintended outcome. Mistakes can be related to incorrect aircraft handling, miscommunication between crew, or the application of the incorrect procedure /rule.



UNDESIRED AIRCARFT STATE (UAS)

UASs are flight crew-induced aircraft position or speed deviations, misapplication of flight controls, or incorrect systems configuration, associated with a reduction in margins of safety. UAS results from ineffective threat or error management and may lead to compromising situations that require immediate action to avoid a mishap.

TEM TOOLS

A threat/error that is detected and effectively managed has no adverse impact on the flight. On the other hand, a mismanaged error reduces safety margins by linking to or inducing additional error or an undesired aircraft state.

The TEM philosophy emphasizes **planning**, **execution**, and **review** are countermeasures elements that enhance safety. Use of equipment (TCAS, GPS), briefings, checklists, training, SOPs and CRM are other safeguards that assist flight crew in safe flight. Vigilance remains crucial for recognizing adverse events and errors, leading to timely recovery.

EVALUATION BIASES TO AVOID

Examiners in aviation need to be aware of potential errors during evaluations. Here are some biases/errors that can influence your judgement as an assessor.

- **Personal bias**: Avoid allowing personal prejudices or preferences to influence the evaluation process.
- **Central tendency errors**: Avoid rating all or most candidates as average to simplify the evaluation process.
- **Generosity/Severity bias**: Be cautious about consistently rating candidates at the high or low of the scale. Only use the edges of the scale after considerable deliberation.
- **Halo/Horn effect**: Be aware that overall impression of a candidate can unintentionally influence your assessment of specific performance aspects, leading to either inflated or underestimated ratings.
- **Stereotyping**: Avoid allowing personal opinions or prejudices to influence their evaluation, ensuring that each candidate is assessed objectively based on their individual performance.
- **Logical errors**: Recognize that proficiency in one area does not automatically imply competence in another, ensuring that each item is assessed independently and according to specific criteria.
- **Delayed grading fade**: Aim to provide prompt assessments after each evaluated item to avoid biases caused by poor recall that may not accurately reflect the candidate's performance.
- **Standards errors**: Conduct evaluations to the prescribed standard, ensuring objectivity and validity.

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Appendix 4 - Oral questions

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

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

It is recommended that the examiner has a bank of questions prepared for all the required items or areas of the oral portion of the test. It is not intended that all the questions being prepared are to be asked. Moreover, a bank of questions will allow the examiner to vary the oral portion of the test from candidate to candidate to some extent.

The questions shall:
- be of a practical operational nature, based upon the aircraft and the trip assigned for the flight test.
- be easily understood and composed of common words.
- measure knowledge, not the use of language.
- focus on one idea only at a time. *The examiner can guide the candidate through a complex procedure by asking "what", "why", "where", "when" and "how" questions after the basic question has been asked.*
- help the candidate visualize the situation and then think about the answer to the specific question. *Knowing that something happens is not as important as understanding why it happens.*

Questions shall NOT be:
- Theoretical type questions as this area is covered by the written examinations.
- Closed ended. *Asking a question that requires a YES/NO answer doesn't really tell the examiner much about the candidate's level of understanding.*
- Ambiguous, tricky or irrelevant questions. *Questions shall be challenging for the candidate but all necessary information to come to the answer must be provided.*

Example of a basic question:
"What is meant by the term VFR in aviation?" Answer, "Visual Flight Rules"
"Is the weather VMC for today's flight?" Answer, "Yes/No" follow up with "How do you know?" etc.

Prepared written questions are preferred in place of *ad-hoc* questions.
The following are samples questions:

Air Law and legislation
Which pilot documents must be carried when flying an aircraft?
Which aircraft documents must be carried during a flight crossing Flight Information Regions?
What do the letters ICAO stand for?

Rules of the Air
Who is responsible for collision avoidance between two aircraft?
What is the difference between a 'long final' and a 'final'?
Who has priority in the air? A motorised glider or a helicopter?

Aerodromes
Is a runway considered part of a manoeuvring area of an aerodrome?
Is a taxiway considered part of a manoeuvring area of an aerodrome?
What is meant by a white dumbbell in a signals area?

Altimeter setting-procedures
What is the level above which aeroplanes cruise with 1013 set in the altimeter subscale?
What is meant by *clutch* QFE?

Airspace
What does the term MATZ stand for?
Describe the dimensions of an ATZ?

Air Traffic Services
What does SSR stand for?
What does a pilot expect from an 'INFO' Service?
What does SVFR stand for?

Visual Flight Rules
What are the conditions for VFR below 3,000 feet?
What is the minimum flight visibility below 10,000 feet?
What is the ANA definition of night?

Registration and Airworthiness
What shall an aircraft nationality and registration mark consist of?
Should an operator of an aircraft maintain a propeller logbook?

Pilot's Licenses and medicals
What are the limitations on the Private Pilot License?
May a student pilot fly without a valid medical certificate?

Operation of Aircraft
Should a drunk person be carried in an aircraft?
What is the meaning of a series of red flashes directed at an aircraft in flight?

Distress, Urgency and Warning Signals
What should a pilot do if he inadvertently enters a Prohibited Area?
What should a pilot do if he hears a May Day called out once?

Search and Rescue
What does SAR stand for?
Why is the filing of a flight plan, especially when crossing inhospitable terrain, important?

Accident and Investigation
Which is the entity entailed with Accident investigation in Malta?

ICAO Annex Terminology
What is an aerodrome beacon?
What is an airway?
Define altitude?

The list of prepared questions is limitless and shows a professional approach to testing. It is recommended the examiner prepares sample questions covering the following subjects:

Meteorology
Human Factors and Pilot Performance
Navigation
Communications
Instrument Flight, and
Flying Training

Handling of candidate answers
The examiner's role is different from the instructor's one. Examiners must strictly observe and evaluate. Instructors are involved in the training experience with the student. They explain, demonstrate, allow students to practice, supervise practice and, finally, evaluate to confirm learning. Examiners shall avoid confirming an answer. Moreover, responding, "No, that's not right" to an answer may undermine a candidate's self-confidence and affect performance for the remainder of the flight test. Examiners shall avoid leading candidates to the correct answer. However, an examiner may ask for clarification.

Appendix 5 - Strong and weak elements of performance

Refer to definitions in the beginning of this document.

Consider the following descriptions concerning a candidate's performance of the test sequence/item demonstrated:

Performance is well executed considering existing conditions:

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

Performance is observed to include minor errors:

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

Performance is observed to include major errors:

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

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

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