CARC

هيئة تنظيم الطيران المدني الاردني

JORDAN CIVIL AVIATION REGULATORY COMMISSION

Flight Examiners Manual
(A) & (H)

Flight Operations Standards Department Flight Examiners Manual

Flight Examiners Manual

Preface

Flight Examiner Manual has been prepared for the use and guidance of Flight Examiners in the performance of their responsibilities. Keeping in mind that our standards must be developed and applied in a manner that ensures the safe conduct of Jordan Civil Aviation, and also promotes values such as, quality of service, mutual respect and professionalism among our own ranks and before the public we serve.

With the exception of extracts from JCAR-FCL the Flight Examiner Manual contains guidance for CARC in their training and management of examiners. The guidance and procedures contained in this chapter will enhance the application of standards and best practices to meet JCAR-FCL requirements.

Comments and recommendations for revision/amendment action to this publication should be forwarded to the Director of Flight Operations Standards, Civil Aviation Regulatory Commission.

This manual is presented in full-page width on loose pages, each page being identified by the date of issue and the amendment number under which it is amended or re-issued. Further revisions to this manual will be indicated using a vertical solid bar adjacent to a paragraph to reflect a modification to that paragraph.

Capt. Mohammad Amin Quran
Chief Commissioner (CEO)
Civil Aviation Regulatory Commission

Flight Examiner Manual
Amendments

Amendment No.	Effective Date	Subpart &Paragraph	Page No.	Entered by

Flight Examiners Manual

Contents

Module	Subject	Page No.
1	General Requirements	006
2	Examiner Training	018
3	Test Standards Airplane	039
4	Test Standards Helicopter	082
5	Test Tolerances (Airplane and Helicopter)	083
6	PPL Skill Test (Airplane and Helicopter)	086
7	CPL Skill Test (Airplane and Helicopter)	095
8	Instrument Rating - IR (Airplane and Helicopter)	102
9	Type and Class Skill Test and Proficiency Checks	106
10	ATPL Skill Test	110
11	Instructor Skill Test and Proficiency Checks (Airplane and Helicopter)	114

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

Each module contains quick reference tables. These are intended to provide the examiner with a precise of the essential requirements for each test/check. These tables may be extracted into a Flight Examiners Handbook (FEH).

An index to the topics within each module is shown at the start of that module.

The following describes the purpose of each module

Module 1 – General Requirements
Guidance material for the CARC in its management of flight examiners

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

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

Module 4 – Test Standards Helicopter

Tables give a practical guide to the criteria to be considered by the examiner when assessing each item of JCAR-FCL Helicopter tests and checks

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

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

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

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

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

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

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

Module 1 – General Requirements

Contents

Guidance material for CARC in its management of flight examiners

No.	Subject	Page No
1.1	Standardization arrangements for examiners	0 6
1.2	Register of Examiners	0 8
1.3	Initial Selection and Knowledge tests	0 8
1.4	Examiner Qualifications and Roles	1 0
1.5	Examiner Training	1 3
1.6	Authorization	1 3
1.7	Addition of Privileges	1 3
1.8	Multiple roles	1 4
1.9	Period of validity of an authorization	1 4
1.10	Examiner Reauthorization	1 4
1.11	Authority to sign documentation after the Skill Test/Proficiency Check	1 6
1.12	Restrictions to the testing of applicants	1 6

1.1 Standardization arrangements for examiners.

JCAR-FCL 1.030/2.030

CARC will designate and authorize as Examiners suitably qualified persons of integrity to conduct, on its behalf, skill tests and proficiency checks. The minimum ratings for Examiners are detailed in JCAR-FCL 1 and 2; Subpart I. CARC will notify examiner responsibilities and privileges to them individually, in writing, specifying the type of skill tests and proficiency checks that may be conducted.

Appendix 1 to JCAR-FCL 1.425/2.425 paragraph 4

All Examiners must be suitably trained, qualified and experienced for their role on the relevant type/class of airplane/helicopter. No specific rules on qualification can be made because the particular circumstance of each organization will differ. It is important, however, that in every instance, the Examiner should, by background and experience, have the professional respect of the aviation community.

Appendix 1 to JCAR-FCL 1.425/2.425 paragraph 3

An examiner will be designated and authorized in accordance with JCAR-FCL and will be:

(a) A flight inspector from CARC; or
(b) An instructor from FTO, TRTO; manufacturer's facility or subcontracted facility; or
(c) A pilot holding a specific authorization from CARC.

AMC JCAR-FCL 1.425/2.425 paragraph 2

Any dispensation from the qualification requirements of JCAR–FCL 1.425/2.425 (a) through (c) should be limited to circumstances in which a fully qualified examiner cannot be made available. Such circumstances may, for example, include skill tests on a new or rare type or class, for which the examiner should at least hold an instructor rating on an airplane/helicopter having the same kind and number of engines and of the same order of mass. (See also JCAR-FCL 1.220/2.220 (a) (4) consider also the level of technology).

AMC JCAR-FCL 1.425/2.425 paragraph 3

Inspectors of CARC supervising examiners will ideally meet the same requirements as the examiners being supervised. However, it is unlikely that they could be so qualified on the large variety of types and tasks for which they have a responsibility and, since they normally only observe training and testing, it is acceptable if they are qualified for the role of an inspector.

1.1.1 Authorization as Senior Examiner

- Hold a valid/current Flight Examiner Authorization.
- Have Examiner experience level acceptable to CARC.
- Have produced a number of skill tests/proficiency checks conducted as JCAR-FCL Examiner.
- CARC may conduct a pre-assessment of the applicant/candidate carrying out a Skill Test/Proficiency Check under supervision of an Inspector from CARC.

Applicants will be required to attend a Senior Examiner Briefing / Course / Seminar arranged by CARC. Content and duration will be determined by CARC and should include:

- Pre course self-study.
- Legislation.
- The role of the Senior Examiner.
- JCAR-FCL examiner assessment (Standardization according to. AMC JCAR-FCL 1.425/2.425).
- CARC Administrative requirements.

Period of validity

Senior Examiner has an authorization as Examiner also with validity according to. JCAR-FCL 1.430/2.430 (one year)

Re-Authorization

The re-authorization of Senior Examiner is at the discretion of CARC and will include re-assessment arrangements established by CARC.

1.2 Register of examiners

CARC should maintain a register of examiners, containing the files of examiners who meet the requirements for the approvals sought.

Examiner candidates shall apply to CARC. A recommendation for the approval of a candidate who does not meet all of the applicable requirements may be accepted and will be forwarded to CARC for consideration. Recommendation should include a statement of all special circumstances affecting the approval.

1.3 Initial Selection and Knowledge Tests

If the candidate meets the applicable JCAR-FCL criteria, CARC will advise the candidate in writing if that application is accepted. The candidate may be called to undergo pre-approval Initial Flight Selection and Knowledge Tests.

At the discretion of CARC the candidate shall take, as an Initial Flight Selection Test, the skill test applicable to the examiner approval sought.

Use of 'Dummies' during the Acceptance Test for an Initial Examiners Authorization

Definitions

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

Applicant: Pilot requiring Rating etc.
Candidate: Pilot requiring Initial Examiners Authorization.
Dummy: Pilot acting as an Applicant.
Acceptance Test: Flight Test conducted by a Senior Examiner (SEN) for an Initial Examiners Authorization.

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

Duties of Crew during Acceptance Tests

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

Dummy

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

Senior Examiner (SEN)

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

Responsibilities

Captaincy

The candidate or his company shall provide the airplane. When the candidate is occupying a pilot's seat, he is the only one with a clear view and full access to the controls, and often is most familiar with the type, he must be the Captain and the safety of the flight is his responsibility. However, the SEN and the 'Dummy' also have an overriding responsibility not to endanger the airplane, but they may not have full access to lookout or controls.

1.4 Examiner Qualifications and Roles

JCAR-FCL 1.420/2.420

There will be six roles for Examiners (Airplanes) and five roles for Examiners (Helicopters):

a. Flight Examiner (FE) (A) and (H).
b. Type Rating Examiner (TRE) (A) and (H).
c. Class Rating Examiner (CRE) (A).
d. Instrument Rating Examiner (IRE) (A) and (H).
e. Synthetic Flight Examiner (SFE) (A) and (H).
f. Flight Instructor Examiner (FIE) (A) and (H).

1.4.1 Pre-requisites

JCAR-FCL 1.425/2.425 (a)

Before training and at all times when the examiner authorization is to be exercised (unless dispensation is given by CARC) examiners are to:

- Hold a license and rating granting privileges at least equal to the license or rating for which they are authorized to conduct tests/checks.
- Be qualified to act as pilot-in-command of each airplane/helicopter for which they are authorized unless specified otherwise.
- Hold the relevant flight instructor rating, unless specified otherwise.

1.4.2 Roles

Quick reference

Airplane and helicopter

FE (PPL) Authorization	
JCAR reference	JCAR-FCL 1.425/2,425
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Based on the PPL Skill test: brief, conduct and assess a skill test flown by an examiner acting as the applicant. • Where an authorization is required for Multi engine airplane / helicopter the test is to be conducted in that type/class

FE (CPL) Authorization	
JCAR reference	JCAR-FCL 1.425/2,425
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Based on the CPL Skill test: brief, conduct and assess a skill test flown by an examiner acting as the applicant. • Where an authorization is required for Multi engine airplane / helicopter the test is to be conducted in that type/class

TRE Authorization	
JCAR reference	JCAR-FCL 1.425/2,425
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Based on the ATPL Skill test: brief, conduct and assess a skill test flown by an examiner acting as the applicant. • The authorization will be type specific

CRE Authorization (not applicable to helicopter)	
JCAR reference	JCAR-FCL 1.425
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Based on the test for which the authorization is sought: brief, conduct and assess a skill test or proficiency check profile for a SPA rating, flown by the examiner acting as the applicants. • Where an authorization is required for Multi engine airplane the test is to be conducted in that type/class • Where instrument rating revalidation privileges are required the test is to include all instrument rating test/check requirements

IRE Authorization	
JCAR reference	JCAR-FCL 1.425/2.425
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Based on the Instrument Rating skill test: brief, conduct and assess a skill test flown by an examiner acting as the applicant. • Where an authorization is required for multi engine airplane/helicopter the test is to be conducted in that type/class

SFE Authorization	
JCAR reference	JCAR-FCL 1.425/2.425
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Based on the type rating skill test: brief, conduct and assess a skill test flown by an applicant, or an examiner or acting as the applicant. • The authorization will be flight simulator and Type Specific

FIE Authorization	
JCAR reference	JCAR-FCL 1.425/2.425
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Based on the Flight Instructor skill test: brief, conduct and assess an instructor skill test flown by the examiner acting as the applicant. • Present a Long Briefing on a subject from JCAR-AMC 1.340/2.340 (45 minutes) as an example briefing to a student flight instructor. • Take an oral exam on a range of subjects from JCAR-AMC 1.340/2.340 (2 hours) • Where an authorization is required for both single and multi engine airplane the required multi engine elements of test are to be conducted in that type/class as a second flight

1.5 Examiner training

Training for a first examiner authorization shall not commence until CARC has selected and approved the candidate for training.

Where a current examiner authorization is held CARC shall specify the required elements of training required.

Where an examiner no longer holds a valid authorization CARC shall apply both selection requirements and specify the required elements of training required.

Examiner Training content is explained at Module 2.

1.6 Authorization

JCAR–FCL 1.030/2.030

CARC will maintain a list of all examiners it has authorized stating for which roles they are authorized. The list will be made available to the air operator certificate holders.

CARC will designate the examiner for the conduct of the skill test (A/H).

Examiners shall be issued with a document showing precise details of:

- Their authorization.
- Airplane/helicopter on which they may test/check.
- Any restrictions to the authorization any further privileges to the authorization.

The grant of an authorization will require the successful completion of the appropriate examiner acceptance test.

1.7 Addition of privileges

Where the examiner requires the addition of a Type/Class, or other previously untested privilege to his authorization, CARC shall ensure that suitable training and testing is conducted before approving the altered authorization.

1.8 Multiple roles

JCAR-FCL 1.425/2.425 (b)

Providing that the examiners meet the ratings and experience requirements for each separate role undertaken, examiners are not confined to a single role as FE, TRE, CRE, IRE, SFE, or FIE. However, CARC may also limit number of examiners roles, types and classes or specific makes and basic models on which any examiner may test.

1.9 Period of validity of an Authorization

JCAR-FCL 1.430/2.430

An examiner's authorization is valid for not more than one year. Examiners are re-authorized at the discretion of CARC, and in accordance with Appendix 1 to JCAR-FCL 1.425/2.425.

1.10 Examiner Reauthorization

Appendix 1 to JCAR-FCL 1.425/2.425 paragraph 5

Examiners may be reauthorized in accordance with JCAR–FCL 1.430/2.430. To be reauthorized the examiner should have conducted at least two skill tests or proficiency checks during the validity period of the authorization. One of the skill tests or proficiency checks given by the examiner within the validity period of the authorization shall have been observed by an inspector of CARC or by a senior examiner specifically authorized for this purpose.

Quick reference:

Airplane

FE/FIE/CRE/TRE/SFE Reauthorization	
JCAR reference	Appendix 1 to JCAR-FCL 1.425
Reauthorization	An examiner's authorization is valid for not more than one years and shall be reauthorized at the discretion of CARC
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Conduct at least 2 Skill tests or Proficiency checks during the authorization period • 1 test within the validity period of the authorization to be observed or a 'dummy' test • Compliance with current standardization arrangements • Demonstration of knowledge of JCAR-FCL and operational document

Quick reference:

Helicopter

FE/FIE/TRE/SFE Reauthorization	
JCAR reference	Appendix 1 to JCAR-FCL 2.425
Reauthorization	An examiner's authorization is valid for not more than one years and shall be reauthorized at the discretion of CARC
Who can test	An Inspector or Senior Examiner appointed by CARC
Form used	
Test format	• Conduct at least 2 Skill tests or Proficiency checks during the authorization period • 1 test within the validity period of the authorization to be observed or a 'dummy' test • Compliance with current standardization arrangements • Demonstration of knowledge of JCAR-FCL and operational document

Combined Reauthorization

Where an examiner holds more than one authorization CARC may approve the reauthorization subject to compliance with the table 'Combination of Examiner Authorizations,' below.

CARC shall identify which of the authorizations held is to be used as the basis for observation. Other authorizations held by that examiner may then be checked orally to ensure the examiner can demonstrate:

- Compliance with the required administration.
- Knowledge of changes to JCAR-FCL formats or requirements.
- Standardization with JCAR-FCL and examiner requirements.

A new authorization cannot be added by oral check alone and is to be actioned as an initial authorization.

Quick reference:

Combination of Examiner Re-authorizations		
Examiner	**Who can test**	**Combined Reauthorization – format**
IRE FIE FE.CPL FE.PPL TRE SFE CRE	Inspector or Senior Examiner authorized by CARC	1. Observation of the test/check identified by CARC. 2. Oral questioning of all authorizations held to check for: • Compliance with the required administration • Knowledge of changes to JCAR-FCL formats or requirements • Standardization with JCAR-FCL and examiner requirements

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

CARC may grant examiners authorization to sign license pages for the revalidation of items successfully passed by Proficiency Check.

In the case of a practical test with an actual applicant and an unsuccessful examiner applicant, the inspector will complete and sign the appropriate documentation.

1.12 Restrictions to the testing of applicants

Notification of Examiners

JCAR-FCL 1.030/2.030

Examiners shall not test applicants to whom flight instruction has been given by them for that license or rating except with the express consent in writing of CARC.

Integrated course skill testing outside Jordan

Appendix 1(c) to JCAR-FCL 1.055 paragraph 6 and Appendix 1b to JCAR-FCL 2.055 Para (b)

On completion of the required training, the skill test for the CPL (A/H) in Phase 4 of the ATP integrated course may be taken with a locally-based FE (A/H) designated and authorized by CARC, provided that the examiner is authorized in accordance with JCAR-FCL Subpart I and completely independent from the FTO except with the expressed consent in writing of CARC.

Module 2 – Examiner Training

Contents

A guide to the practical training of examiners

No.	Subject	Page No
2.1	General	18
2.2	Training Content	19
2.3	Test/Check Standards	21
2.4	Purpose of test and checks	22
2.5	Examiner preparation for test/check	23
2.6	Weather minima	26
2.7	Pre flight – briefing	27
2.8	Applicant's planning and facilities	29
2.9	Airmanship	30
2.10	Assessment System	31
2.10.1	Flight Management	31
2.10.2	Conduct of test/check	32
2.10.3	Repeat items	34
2.10.4	Pass/fail criteria	34
2.10.5	The result	34
2.11	Post flight – debrief	37
2.12	Complaints and Appeals	38

2.1 General

IEM JCAR-FCL 1.425/2.425 paragraph 3

It is intended that all applicants for authorization should have received some formal training for this purpose before undertaking a test flight with an inspector/senior examiner. The training should be acceptable to the inspector observing the applicant.

AMC JCAR-FCL 1.425/2.425 paragraph 1

The standard of competence of pilots depends to a great extent on the competence of examiners. Examiners will be briefed by CARC on the JCAR–FCL requirements, the conduct of skill tests and proficiency checks, and their documentation and reporting.

Examiners should also be briefed on the protection requirements for personal data, liability and accident insurance.

IEM JCAR-FCL 1.425/2.425 paragraph 2

An inspector of CARC, or a senior examiner, will observe all examiner applicants conducting a test on an 'applicant' in an airplane/helicopter for which examiner authorization is sought. Items from the 'Syllabi for training and skill tests/proficiency check will be selected by the inspector for examination of the 'applicant' by the examiner applicant. Having agreed with the inspector the content of the test, the examiner applicant will be expected to manage the entire test. This will include briefing, the conduct of the flight, assessment and debriefing of the 'applicant'. The inspector/senior examiner will discuss the assessment with the examiner applicant before the 'applicant' is debriefed and informed of the result.

2.2 Training Content

2.2.1 Trainers

AMC JCAR-FCL 1.425/2.425 paragraph 3

Inspectors of CARC supervising examiners will ideally meet the same requirements as the examiners being supervised. However, it is unlikely that they could be so qualified on the large variety of types and tasks for which they have a responsibility and, since they normally only observe training and testing, it is acceptable if they are qualified for the role of an inspector.

AMC JCAR-FCL 1.425/2.425 paragraph 4

CARC will have available, a sufficient number of inspectors or senior examiners to conduct, supervise and/or inspect the standardization arrangements according to JCAR-FCL 1.425(c)/2.425(c).

2.2.2 Role and duties of the examiner

AMC JCAR-FCL 1.425/2.425 paragraph 4

The standardization arrangements should include, as appropriate to the role of the examiner, at least the following instruction:

(i) CARC requirements relevant to their examination duties;
(ii) Fundamentals of human performance and limitations relevant to flight examination;
(iii) Fundamentals of evaluation relevant to examinee's performance;
(iv) JCAR-FCL, related JCARs and CARC implementation Procedures.
(v) Quality System as related to JCAR-FCL; and
(vi) Multi-Crew Co-operation (MCC), Human Performance and Limitations, if applicable.

All items above are core knowledge requirements for an examiner and are recommended as core course material. This core course may be studied before recommended examiner training is commenced. The core course may utilize any training format and would be prepared by CARC.

2.2.3 Specific Flight Test and Check training

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

a. Knowledge and management of the test for which the authorization is to be sought. These are described in the relevant Modules in this FEM.
b. Knowledge of the administrative procedures pertaining to that test/check.
c. For an initial examiner authorization practical training in the examination of the test profile sought is required.
d. An Examiner Authorization Acceptance Test (EAAT) flight with an Inspector or senior examiner designated by CARC, eg. for FE (PPL) this is to be the PPL skill test.

Examples of acceptable means of compliance for initial examiner training

	CRE	TRE	FE (PPL)	FE (CPL)	FIE	IRE
Core course	• JCAR FEM package • FEH • Training course on JCAR-FCL requirements and procedures • Package self test					
Ground training	**Test of Core Course material:** • Test /check profiles • SE/ME test/check differences training (as required) • Partial pass criteria • Repeat criteria • Aborted test • Fail criteria • Use of STDs for test/check (as required) **One half day to cover:** • Administration • Revalidation by experience (SEP & TMG) only					
Flight test and check training(flight)	Two skill test/ proficiency check under supervision	One skill test or proficiency Check under supervision	Two skill test/ proficiency check under supervision			
Additional training	To be determined by the CARC					
Flight test (additional to course)	Examiner Authorization Acceptance Test (EAAT) with an inspector/senior examiner authorized by CARC					

2.3 Test/Check Standards

Standards of performance are central to a consistent conduct of tests and checks by Examiners:

a. **Appendix 1 to JCAR-FCL 1.425/2.425 paragraph 2**

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

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

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

d. 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.

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

2.4 Purpose of a test/check

Definitions: JCAR-FCL 1.001/2.001

- A Flight Test or Skill test is a demonstration of knowledge and skill for a license or rating issue and may include such oral examination as the Examiner may determine necessary.

- A Proficiency Check is a demonstration of continuing knowledge and skill to revalidate or renew ratings and may include such oral examination as the Examiner may determine necessary.

The purpose of a test/check is to:

- **AMC JCAR-FCL 1.425/2.425 paragraph 9:** Determine through practical demonstration during a test/check that an applicant has acquired or maintained the required level of knowledge and skill/proficiency;

- **AMC JCAR-FCL 1.425/2.425 paragraph 10:** Improve training and flight instruction in FTOs and TRTOs by feedback of information from examiners concerning items/sections of tests/checks that are most frequently failed;

- **AMC JCAR-FCL 1.425/2.425 paragraph 11**: Assist in maintaining and, where possible, improving air safety standards by having examiners display good airmanship and flight discipline during tests/checks.

AMC JCAR-FCL 1.425/2.425 paragraph 22

Before undertaking a test/check an examiner will verify that the airplane / helicopter or synthetic training device intended to be used, is suitable and appropriately equipped for the test/check. Only airplane/helicopter or synthetic training devices approved by the CARC for skill testing/proficiency checking may be used.

a. **AMC JCAR-FCL 1.425/2.425 paragraph 25 c**: Pre-flight briefing should include:
   - Test/check sequence;
   - Power setting and speeds; and
   - Safety considerations.

b. **AMC JCAR-FCL 1.425/2.425 paragraph 25 d**: In-flight exercises will include:
   - Each relevant item/section of the test/check.

c. **AMC JCAR-FCL 1.425/2.425 paragraph 25 e**: Post-flight de-briefing should include:
   - Assessment/evaluation of the applicant.
   - Documentation of the test/check with the applicants FI present, if possible.

2.5 Examiner preparation for test/check

AMC JCAR-FCL 1.425/2.425 paragraph 25 a

A test/check is comprised of:

- Oral examination on the ground (where applicable);
- Pre-flight briefing;
- In-flight exercises; and
- Post-flight de-briefing.

Examiner Approach

AMC JCAR-FCL 1.425/2.425 paragraph 20

An examiner should encourage a friendly and relaxed atmosphere to develop both before and during a test/check flight. A negative or hostile approach should not be used. During the test/check flight, the examiner should avoid negative comments or criticisms and all assessments should be reserved for the de-briefing.

AMC JCAR-FCL 1.425/2.425 paragraph 18

An examiner should supervise all aspects of the test/check flight preparation, including, where necessary, obtaining or assuring an ATC "slot" time.

AMC JCAR-FCL 1.425/2.425 paragraph 19

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

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

Test/check scheduling

AMC JCAR-FCL 1.425/2.425 paragraph 5

An examiner should plan per working day not more than three test checks relating to PPL, CPL, IR or class rating, or more than two tests/checks related to FI, CPL/IR and ATPL or more than four tests/checks relating to type/rating.

AMC JCAR-FCL 1.425/2.425 paragraph 6

An examiner should plan at least three hours for a PPL, CPL, IR or class rating test/checks, and at least four hours for FI, CPL/IR, ATPL or type rating tests / checks, including pre-flight briefing and preparation, conduct of the test/check, de-briefing and evaluation of the applicant and documentation.

AMC JCAR-FCL 1.425/2.425 paragraph 7

An examiner should allow an applicant adequate time to prepare for a test/check, normally not more than one hour.

AMC JCAR-FCL 1.425/2.425 paragraph 8

An examiner should plan a test/check flight so that the flight time in an airplane / helicopter or ground time in an approved synthetic training device is not less than:

- 90 Minutes for PPL and CPL, including navigation section;
- 60 Minutes for IR, FI and single pilot type/class rating; and
- 120 Minutes for CPL/IR and ATPL.

Preparing for the applicant

AMC JCAR-FCL 1.425/2.425 paragraph 18

Before meeting the applicant the Examiner must be properly prepared for the flight. The Examiner should supervise all aspects of the test/check flight preparation, including, where necessary, obtaining or assuring an ATC services as required.

AMC JCAR-FCL 1.425/2.425 paragraph 19

The Examiner will plan a test/check in accordance with JCAR-FCL requirements. Only those maneuvers and procedures required in the appropriate test/check form will be undertaken.

a. Adequate and appropriate briefing/debriefing facilities must be used for all tests.

b. Instruction for the associated theoretical knowledge examinations shall always have been completed before each skill test is taken.

c. Knowledge elements not evident in the demonstrated skills may be tested by questioning, at anytime, during the flight event. Questioning in flight should be used judiciously so that safety is not jeopardized. Questions may be deferred until after the flight portion of the test is completed.

d. For airplane/helicopter requiring only one pilot, the examiner may not assist the applicant in the management of the airplane/helicopter, radio communications, tuning and identifying navigational equipment, and using navigation charts.

e. If occupying a pilot seat the examiner shall not take part in the operation of the airplane/helicopter other than for safety.

f. Flight Safety shall be the prime consideration at all times. The examiner, applicant and any other crew shall be alert for other traffic.

Expansions of the details of the items a. to f. above are covered under the relevant paragraph headings below.

Route/profile planning

AMC JCAR-FCL 1.425/2.425 paragraph 26

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

2.6 Weather minima

AMC JCAR-FCL 1.425/2.425 paragraph 23

A test/check flight will be conducted in accordance with the airplane/helicopter flight manual (AFM) and, if applicable, the airplane/helicopter operators manual (AOM).

AMC FCL 1.425/2.425 paragraph 24

A test/check flight will be conducted within the limitations contained in the operations manual of a FTO/TRTO.

In all cases Weather minima shall be in accordance with JCAR Part-91.

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

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

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

2.7 Pre Flight – briefing

Examiner approach

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

Construction of the Briefing

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

Briefing content

IEM JCAR-FCL 1.425/2.425 paragraph 4

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

a. The objective of the flight.
b. Licensing checks, as necessary.
c. Freedom for the applicant to ask questions.
d. Operating procedures to be followed (e.g. operators manual).
e. Weather assessment.
f. Operating capacity of applicant and examiner.
g. Aims to be identified by applicant.
h. Simulated weather assumptions (e.g. icing, cloud base).
i. Contents of exercise to be performed.
j. Agreed speed and handling parameters (e.g. V-speeds, bank angle).
k. Use of R/T.
l. Respective roles of applicant and examiner (e.g. during emergency).
m. Administrative procedures (e.g. submission of flight plan) in flight.

IEM JCAR-FCL 1.425/2.425 paragraph 5

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

a. Involvement of examiner in a multi-pilot operating environment.
b. The need to give the 'applicant' precise instructions.
c. Responsibility for safe conduct of the flight.
d. Intervention by examiner, when necessary.
e. Use of screens.
f. Liaison with ATC and the need for concise, easily understood intentions.
g. Prompting the 'applicant' regarding required sequence of events (e.g. following a go- around).
h Keeping brief, factual and unobtrusive notes.

2.8 Applicant's Planning and facilities

The Examiner shall conduct each test/check in such a manner as to conform to the guidance given by CARC such that each applicant is allowed adequate time for the test, normally not more than one hour.

Adequate Planning facilities must be available to the applicant. The examiner will check that the applicant is aware of where resources are. A quiet briefing room should be used so that the planning can be completed without interruption or distraction.

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

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

- Route (including flight to the planned alternate aerodrome).
- Communication and NAV aid frequencies (note that where this information is clearly displayed on planning documents, such as the charts to be used, it is not necessary to copy that information to the log).
- Planned levels and altitudes.
- Timings, ETAs.
- MSA, safety height or minimum levels/altitudes.
- Fuel (showing contingency fuel and space to plot fuel remaining at way points).
- Space for logging ATIS and clearances in a chronological order.

The route may require flight through airspace other than Class G airspace and consideration should be given to any special precautions during planning.

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

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

2.9 Airmanship

2.9.1 Definition

The complex of all resources (knowledge, attitude and skills) enabling the pilot to safely handle his airplane/helicopter with due regard to rules and regulations, whatever the circumstances, both on the ground and in the air. Human resources include all other groups routinely working with the pilot who are involved in decisions that are required to operate a flight safely. These groups may include, but are not limited to: dispatchers, cabin crewmembers, maintenance personnel and air traffic controllers. Airmanship is not a single task but is a set of competencies, which must be evident in all tasks, conducted throughout the practical test standard as applied to a skill test or proficiency check.

2.9.2 Airmanship competencies

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

1. Communications Processes and Decisions:
   a. Briefing.
   b. Inquiry/Advocacy/Assertiveness.
   c. Self-Criticism.
   d. Communication with available personnel resources.
   e. Use of checklists.
   f. Decision making.

2. Building and Maintenance of Flight Cooperation:
   a. Leadership/Team skills.
   b. Interpersonal Relationships.

3. Workload Management and Situational Awareness:
   a. Preparation/Planning.
   b. Vigilance.
   c. Workload Distribution.
   d. Distraction Avoidance.
   e. Avoidance of undesirable situations (e.g., wake turbulence, inadequate airplane/helicopter spacing).

2.9.3 How the Examiner Assesses Airmanship

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

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

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

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

2.10 Assessment System

2.10.1 Flight management

AMC JCAR-FCL 1.425/2.425 paragraph 27

An examiner should maintain a flight log and assessment record during the test/check for reference during the post/flight de-brief. This record should be compiled without alerting or attracting the attention of the applicant.

Communications in flight should only be necessary:

- To prompt the applicant regarding required sequence of events using concise and easily understood intentions (e.g. following a go-around).

- **AMC JCAR-FCL 1.425/2.425 paragraph 28:** An examiner should be flexible to the possibility of changes arising to pre-flight briefs due to ATC instructions, or other circumstances affecting the test/check.

- **AMC JCAR-FCL 1.425/2.425 paragraph 29**: Where changes arise to a planned test/check an examiner should be satisfied that the applicant understands and accepts the changes. Otherwise, the test/check flight should be terminated.

- **JCAR- FCL 1.170/2.170 paragraph 6:** Should an applicant choose not to continue a test/check for reasons considered inadequate by an examiner, the applicant shall retake the entire skill test. If the test/check is terminated for reasons considered adequate by the examiner, only those items/sections not completed will be tested in a further flight.

- **AMC JCAR-FCL 1.425/2.425 paragraph 21 (last sentence):** An examiner should terminate a test/check only for the purpose of assessing the applicant, or for safety reasons.

Except when the Examiner has to give guidance or a reminder, the applicant should be allowed to conduct the flight without interruption. It should be remembered, however, that the Examiner is responsible for the safe conduct of the flight and the prevention of any infringements.

2.10.2 Conduct of Test/check

AMC JCAR-FCL 1.425/2.425 paragraph 13

Each item within a test/check section should be completed and assessed separately. The test/check schedule, as briefed, should not, normally, be altered by an examiner.

AMC JCAR-FCL 1.425/2.425 paragraph 14

Marginal or questionable performance of a test/check item should not influence an examiner's assessment of any subsequent items.

AMC JCAR-FCL 1.425/2.425 paragraph 15

An examiner should verify the requirements and limitations of a test/check with an applicant during the pre-flight briefing.

AMC JCAR-FCL 1.425/2.425 paragraph 16

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

AMC JCAR-FCL 1.425/2.425 paragraph 17

Any comment on, or disagreement with, an examiner's test/check evaluation /assessment made during a de-brief will be recorded by the examiner on the test/check report, and will be signed by the examiner and countersigned by the applicant.

AMC JCAR-FCL 1.425/2.425 paragraph 21

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

IEM JCAR-FCL 1.425/2.425 paragraph 6

The examiner applicant should refer to the flight test tolerances given in (JCAR–FCL and Module 5 for the appropriate test) Attention should be paid to the following points:

a. Questions from the 'applicant'.
b. Give results of the test and any sections failed.
c. Give reasons for failure.

2.10.3 Repeat Items

AMC JCAR-FCL 1.425/2.425 paragraph 31

At the discretion of the examiner, any maneuver or procedure of the test/check may be repeated once by the applicant. An examiner may terminate a test/check at any stage, if it is considered that the applicant's competency requires a complete re-test/re-check.

2.10.4 Pass/Fail criteria

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

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

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

2.10.5 The Result

There are several methods for evaluating an applicant's performance. CARC will select the Objective Assessment method.

Objective Assessment

Satisfactory Performance

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

- Performing the assignments specified in the Examiner's Manual for the license or rating sought within the approved standards.

- Demonstrating control of the airplane/helicopter and flight with the successful outcome of each assignment performed never seriously in doubt.

- Demonstrating sound judgment and crew resource management and single-pilot competence if the airplane/helicopter is type certificated for single-pilot operations.

Unsatisfactory Performance

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

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

Result

An examiner will use one of the following terms of assessment

Quick reference:

Airplane

Reference	The examiner is to check JCAR-FCL references for pass fail criteria relevant to the test to be conducted. In general the guidance is
Pass	The applicant shall pass all sections of the skill test or proficiency check
Partial Pass	**For SPA:** If any item in a section is failed, that section is failed. Any applicant failing only one section shall take the failed section again. The applicant retaking only that failed section, plus the departure section often completes the partial pass. Should either of those two be failed at a second attempt then the result of that test if a fail **For MPA**: Any applicant failing 5 or less items shall take the failed items
Fail	**For SPA:** If any item in a section is failed, that section is failed. Failure in more than one section will require the applicant to take the entire test/check again. Failure in any section of the re-test/re-check including those sections that have been passed at a previous attempt will require the applicant to take the entire test/check again. **For MPA**: The applicant shall pass all sections of the skill test/proficiency check. Failure of more than five items will require the applicant to take the entire test/check again. Failure in any item on the re-test/check including those items that have been passed at a previous attempt will require the applicant to take the entire check/test again **AMC JCAR-FCL 1.425 PARAGRAPH 21** provided that any of the following apply: i. The flight test tolerances have been exceeded after the examiner has made due allowance for turbulence or ATC instructions; ii. The aim of the test/check is not completed; iii. The aim of exercise is completed but at the expense of unsafe flight, violation of a rule or regulation, poor airmanship or rough handling; iv. An acceptable level of knowledge is not demonstrated; v. An acceptable level of flight management is not demonstrated; or vi. The intervention of the examiner or safety pilot is required in the interest of safety
Incomplete tests	Should an applicant choose not to continue a test/check for reasons considered inadequate by an examiner, the applicant shall retake the entire skill test. If the test/check is terminated for reasons considered adequate by the examiner, only those items/sections not completed will be tested in a further flight

Quick reference:

Helicopter

Reference	The examiner is to check JCAR-FCL references for pass fail criteria relevant to the test to be conducted. In general the guidance is:
Pass	Provided the applicant demonstrates the required level of knowledge, skill/proficiency and, where applicable, remains within the flight test tolerances for the license or rating
Partial Pass	The partial pass is not always an option on test/check. However, when applicable it is used to indicate that only one section of the test profile was failed. The applicant retaking only that failed section, plus the departure section often completes the partial pass. Should either of those two be failed at a second attempt then the result of that test if a fail
Fail	**Appendix 1 to JCAR-FCL 2.425 paragraph 21 b.** provided that any of the following apply: i. The flight test tolerances have been exceeded after the examiner has made due allowance for turbulence or ATC instructions; ii. The aim of the test/check is not completed; iii. The aim of exercise is completed but at the expense of unsafe flight, violation of a rule or regulation, poor airmanship or rough handling; iv. An acceptable level of knowledge is not demonstrated; v. An acceptable level of flight management is not demonstrated; or vi. The intervention of the examiner or safety pilot is required in the interest of safety
Incomplete tests	Should an applicant choose not to continue a test/check for reasons considered inadequate by an examiner, the applicant shall retake the entire skill test. If the test/check is terminated for reasons considered adequate by the examiner, only those items/sections not completed will be tested in a further flight

2.11 Post flight - debrief

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

- Take the time necessary to consider a fair, unbiased and correct assessment of the test/check.
- Deliver a clear decision on the result of the test/check with precise details of the reason for each failed item indicating any fail result in a friendly but firm manner.
- Where an existing rating has been failed instruct the applicant on the implications of his result.
- Direct the applicant in the administration required following his result.

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

IEM JCAR-FCL 1.425/2.425 paragraph 7

The following points may be discussed:

a. Advise the applicant how to avoid or correct mistakes.
b Mention any other points of criticism noted.
c Give any advice considered helpful.

2.12 Complaints and Appeals

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

Module 3 – Test Standards – Airplane

The Tables in this module give a practical guide to the criteria to be considered by the examiner when assessing each item of JCAR-FCL airplane/helicopter tests and checks. The table should be used in conjunction with the appropriate JCAR-FCL 1 test schedule.

Introductory Notes

Using a reference system of 7 Phases of Flight the Module 3 table describes the required competency standards for every item of tests or check listed in JCAR-FCL 1.

The Phase of Flight headings are:

No.	subject	Page
1	Pre Flight Procedures	41
2	Take Off and Departure Procedure	47
3	General Handling	52
4	En Route Procedures	58
5	Abnormal and Emergency Procedures	62
6	Instrument Procedures	70
7	Arrival and Landing Procedures	76
8	Night Operations (Applies to all phases of flight)	81

The table is separated into 4 columns as follows:

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

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

Airmanship

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

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

PRE-FLIGHT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Licenses			
To determine that the applicant exhibits knowledge of the elements related to license and documents by explaining:		• Pilot license privileges and limitations. • Medical certificate class and duration and how to renew it. • Pilot logbook or flight records	
Flight Documents			
To determine that the applicant exhibits knowledge of the elements related to flight preparation, with regard To:		• Airworthiness and registration certificates. • Operating limitations, placards, and instrument markings. • Weight and balance data and equipment list. • Airworthiness directives, compliance records, maintenance requirements, and appropriate records. • NOTAMS	
Weather information			
To determine that the applicant exhibits adequate knowledge of the elements related to aviation weather information by obtaining, reading, and analyzing the applicable items such as:		• Weather reports and forecasts. • Pilot and radar reports. • Surface analysis charts. • Radar summary charts. • Significant weather prognostics. • Winds and temperatures aloft. • Freezing level charts • Stability charts. • Severe weather outlook charts. • Tables and conversion graphs. • SIGMETs. • ATIS and VOLMET reports. • Correctly analyses the assembled weather information pertaining to the proposed route of flight and destination aerodrome, and determines whether an alternate aerodrome is required, and, if required, whether the selected alternate aerodrome meets the regulatory requirement. • Makes a competent "go/no-go" decision based on available weather information. • Completes the appropriate checklist	

PRE-FLIGHT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Airspace System			
To determine that the applicant exhibits knowledge of the elements related to the Airspace System by explaining:		• Basic VFR Weather Minimums for all classes of airspace. • Airspace classes, their boundaries and specifications IFR/VFR for the following : ▪ Class A. ▪ Class B. ▪ Class C. ▪ Class D. ▪ Class E. ▪ Class F. ▪ Class G. • Special use airspace and other airspace areas	
Preparation of Flight Plan			
To determine that the applicant exhibits adequate knowledge of the elements by presenting and explaining a pre-planned flight as previously assigned by the examiner (pre-planning at examiner's discretion). The Examiner must ensure that the Applicant:- Note; The flight should be planned using marginal weather conditions and conform to the regulatory requirements for flight rules within the airspace in which the flight will be conducted		• Exhibits adequate knowledge of the airplane's performance capabilities by calculating the estimated time en-route and total fuel requirement based upon such factors as- ▪ Power settings. ▪ Operating altitude or flight level. ▪ Wind. ▪ Fuel reserve requirements. • Selects and correctly interprets the current and applicable en-route charts, maps, SID (standard instrument departure), STAR (standard terminal arrival), and standard instrument approach procedure charts, as appropriate to the flight. • Obtains and correctly interprets applicable NOTAM information. • Determines the calculated performance is within the airplane's capability and operating limitations. • Completes and files a flight plan in a manner that accurately reflects the conditions of the proposed flight	

PRE-FLIGHT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Mass and Balance Calculation			
To determine that the applicant:	• Computes the centre-of-gravity location for a specific load condition (as specified by the examiner), including adding, removing, or shifting mass. • Determines if the computed centre of gravity is within the forward and aft centre-of-gravity limits, and that lateral fuel balance is within limits for takeoff and landing	• Demonstrates good planning and knowledge of procedures in applying operational factors affecting airplane performance	
Performance Calculation			
To determine that the applicant exhibits adequate knowledge of performance and limitations, including:	• A thorough knowledge of the adverse effects of exceeding any limitation. • Proficient use of (as appropriate to the airplane) performance charts, tables, graphs, or other data relating to items such as: ▪ Accelerate-stop distance. ▪ Accelerate-go distance. ▪ Takeoff performance-all engines, engine(s) inoperative. ▪ 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. ▪ Service ceiling-all engines, engine(s) inoperative(s) including drift down, if appropriate. ▪ Cruise performance. ▪ Fuel consumption, range, and endurance. ▪ Descent performance. ▪ Go-around from rejected landings. ▪ Operational factors affecting airplane performance. ▪ Other performance data appropriate to the test airplane. • Describing (as appropriate to the airplane) the airspeeds used during specific phases of flight. • Describing the effects of meteorological conditions upon performance characteristics and correctly applies these factors to a specific chart, table, graph or other performance data		

PRE-FLIGHT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Theoretical Knowledge			
To determine that the applicant exhibits adequate knowledge appropriate to the airplane; its systems and components; its normal, abnormal, and emergency procedures; and uses the correct terminology with regard to the following items: Note: Applicants must exhibit adequate knowledge of the contents of the Pilot's Operating Handbook or AFM with regard to the systems and components listed ; the Minimum Equipment List (MEL), if appropriate; and the Operations Specifications, if applicable	The examiner is expected to question the applicant on a selection from the following list. • Landing gear-indicators, brakes, antiskid, tires, nose-wheel steering, and shock absorbers. • Engine-controls and indications, induction system, carburetor and fuel injection, turbo charging, cooling, fire detection/protection, mounting points, turbine wheels, compressors, and de-icing, anti-icing, and other related components. • Propellers-type, controls, feathering/un feathering, auto feather, negative torque sensing, synchronizing, and synchrphasing. • Fuel system-capacity; drains; pumps; controls; indicators; cross feeding; transferring; jettison; fuel grade, color and additives; fuelling and defueling procedures; and substitutions, if applicable. • Oil system-capacity, grade, quantities, and indicators. • Hydraulic system-capacity, pumps, pressure, reservoirs, grade, and regulators. • Electrical system-alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings. • Environmental systems heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices. • Avionics and communications-autopilot; flight director; Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); Radar; Inertial Navigation Systems (INS); Global Positioning System (GPS); VOR, NDB, ILS/MLS, RNAV systems and components; indicating devices; transponder; emergency locator transmitter, TCAS, EGPWS. • Ice protection-anti-ice, de-ice, pitot-static system protection, propeller, windshield, wing and tail surfaces. • Crewmember and passenger equipment-oxygen system, survival gear, emergency exits, evacuation procedures and crew duties, and quick donning oxygen mask for crewmembers and passengers. • Flight controls-ailerons, elevator(s), rudder(s), winglets, control tabs, balance tabs, stabilizer, flaps, spoilers, and leading edge flaps/slats and trim systems. • Pitot-static system with associated instruments and the power source for the flight instruments		

PRE-FLIGHT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Inspection of Airplane and Equipment			
To determine that the applicant exhibits knowledge of the following elements: NOTE: If a flight engineer is a required crewmember for a particular type airplane, the actual visual inspection may be waived. The actual visual inspection may be replaced by using an approved pictorial means that realistically portrays the location and detail of inspection items. On airplanes requiring a flight engineer, a candidate must demonstrate adequate knowledge of the flight engineer functions for the safe completion of the flight if the flight engineer becomes ill or incapacitated during a flight		• Required instruments and equipment for day VFR.(night if applicable) • Procedures and limitations for operating the airplane with inoperative instruments. • Exhibits adequate knowledge of the pre-flight inspection procedures including: ▪ The purpose of inspecting the items which must be checked ▪ How to detect possible defects. ▪ The corrective action to take. ▪ Process for obtaining an MEL to include a letter of authorization. ▪ When a special flight permit would be required. ▪ Procedures for obtaining a special flight permit. • Exhibits adequate knowledge of the operational status of the airplane by locating and explaining the significance and importance of related documents such as: ▪ Airworthiness and registration certificates. ▪ Operating limitations, handbooks, and manuals. ▪ Mass and balance data. ▪ Maintenance requirements, tests, and appropriate records applicable to the proposed flight or operation; and maintenance that may be performed by the pilot • Uses the checklist to inspect the airplane externally and internally. • Verifies the airplane is safe for flight by emphasizing (as appropriate) the need to look at and explain the purpose of inspecting items such as: ▪ Engine, including controls and indicators. ▪ Fuel quantity, grade, type, contamination safeguards, and servicing procedures. ▪ Oil quantity, grade, and type. ▪ Hydraulic fluid quantity, grade, type, and servicing procedures. ▪ Oxygen quantity, pressures, servicing procedures, and associated systems and equipment for crew and passengers. ▪ Hull, landing gear, floats devices, brakes, and steering system. ▪ Tires for condition, inflation, and correct mounting, where applicable. ▪ Fire protection/detection systems for proper operation, servicing, pressures,	

		and discharge indications. ▪ Pneumatic system pressures and servicing. ▪ Ground environmental systems for proper servicing and operation. ▪ (Reserved) ▪ Flight control systems including trim, spoilers, and leading/trailing edge. ▪ Anti-ice, de-ices systems, servicing, and operation. • Co-ordinates with ground crew and ensures adequate clearance prior to moving any devices such as door, hatches, and flight control surfaces • Complies with the provisions of the appropriate Operations Specifications, if applicable, as they pertain to the particular airplane and operation • Demonstrates proper operation of all applicable airplane systems • Notes any discrepancies, determines if the airplane is airworthy and safe for flight, or takes the proper corrective action • Checks the general area around the airplane for hazards to the safety of the airplane and personnel • Makes a correct passenger and departure briefing • Performs all items up to start procedures by systematically following the check list items	
Engine starting			
To determine that the applicant exhibits adequate knowledge of the correct engine start procedures including:		• Use of an auxiliary power unit (APU) or external power source (GPU and/or ASU). • Starting under various atmospheric conditions, normal and abnormal starting limitations, and the proper action required in the event of a malfunction. • Ensuring the ground safety procedures are followed during the before-start, start, and after-start phases. • Ensuring the use of appropriate ground crew personnel during the start procedures. • All items of the start procedures by systematically following the approved briefing/checklist items for the before-start, start, and after-start phases. • Demonstrates sound judgment and operating practices in those instances where specific instructions or briefing/ checklist items are not published. • Completes the appropriate briefing/ checklist	

TAKE – OFF AND DEPARTURE PROCEDURES (TAKE-OFF)			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Taxiing			
To determine that the applicant exhibits adequate knowledge of safe taxi procedures: Before Take-off	• Demonstrates proficiency by maintaining correct and positive airplane control. • Maintains proper spacing on other airplane, obstructions, and persons	• Exhibits adequate knowledge of safe taxi procedures (as appropriate to the airplane including push-back or power back, as may be applicable). • Accomplishes the applicable briefing/ checklist items and performs recommended procedures. • Complies with instructions issued by ATC (or the examiner simulating ATC). • Observes runway hold lines, localizer and glide slope critical areas, beacons, and other surface control markings and lighting	• Maintains constant vigilance and lookout during taxi operation. • Demonstrates correct crew co-ordination (MPA) • Divides attention properly inside and outside cockpit. • Obtains appropriate clearance before Crossing /entering active runways
Before Take-off			
To determine that the applicant exhibits adequate knowledge of the pre-take-off procedures and actions	• Ensures that all systems are within their normal operating range prior to beginning, during the performance of, and at the completion of those checks required by the approved checklist. • Ensures that the airplane is correctly configured for take-off	• Exhibits adequate knowledge of the pre-takeoff checks by stating the reason for checking the items outlined on the checklist and explaining how to detect possible malfunctions. • Explains, as may be requested by the examiner, any normal or abnormal system-operating characteristic or limitation and the corrective action for a specific malfunction. • Determines the airplane's take off performance, considering such factors as wind, density altitude, weight, temperature, pressure altitude, and runway condition and length. • Completes the appropriate checklist	• Divides attention properly inside and outside cockpit • Determines if the airplane is safe for the proposed flight or requires maintenance. • Ensures that correct crew and passenger briefings are completed • Ensures or confirms that passengers, crew etc are correctly secured for take-off. • Obtains appropriate take-off clearance using standard R/T phraseology • Notes any surface conditions, obstructions or other hazards that might hinder a safe takeoff

TAKE – OFF AND DEPARTURE PROCEDURES (TAKE-OFF)			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Take-off (General)			
To determine the Applicant exhibits adequate knowledge of normal takeoffs and climbs including (as appropriate to the airplane) airspeeds, configurations, and emergency/ abnormal procedures	• Aligns the airplane on the runway centerline. • Applies the controls correctly to maintain longitudinal alignment on the centerline of the runway prior to initiating and during the take-off. • Correctly sets take-off power. • Adjusts the controls to attain the desired pitch attitude at the predetermined airspeed to obtain the desired performance. • Maintains the appropriate climb attitude. • Performs or calls for and verifies the accomplishment of gear and flap retractions, power adjustments, and other required pilot related activities at the required airspeeds within the tolerances established in the Pilot's Operating Handbook or AFM. • Adjusts the engine controls as recommended by the approved guidance for the existing conditions. • Achieves the appropriate airspeeds and climb segment airspeeds. • Maintains desired heading	• Verifies and correctly applies correction for the existing wind component to the takeoff performance. • Completes required checks prior to starting takeoff to verify the expected engine performance. Performs all required pre-takeoff checks. • Monitors engine controls, settings, and instruments during takeoff to ensure all predetermined parameters are maintained. • Uses the applicable noise abatement and wake turbulence avoidance procedures, as required. • Completes the appropriate briefing and checklist	• Correct crew co-ordination as required by type of operation (MPA) • Correctly assesses airplane acceleration during take-off. • Correctly assesses take-off and climb hazards particularly those related to obstacles
Instrument Take-off see Take-off (General)			
To determine that the applicant exhibits adequate knowledge of an instrument takeoff with instrument meteorological conditions simulated at or before reaching an altitude of 100 feet (30 meters) AGL	• Sets the applicable radios/ flight instruments to the desired setting prior to initiating the takeoff. • Transitions smoothly and accurately from visual meteorological conditions to actual or simulated instrument meteorological conditions	• Accomplishes the appropriate briefing /checklist items to ensure that the airplane systems applicable to the instrument takeoff are operating properly. • Complies with ATC clearances and instructions issued by ATC (or the examiner simulating ATC).	• Takes into account, prior to beginning the takeoff, operational factors which could affect the maneuver such as Take off Warning Inhibit Systems or other airplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety

TAKE – OFF AND DEPARTURE PROCEDURES (TAKE-OFF)			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Crosswind Take-off see Take-off (General)			
To determine that the applicant exhibits adequate knowledge of crosswind takeoff and climb techniques: NOTE: If no crosswind condition exists, the use of proper techniques may be orally checked.	• Sets correct configuration for cross wind take-off and makes suitable adjustments to airspeeds required • Applies the controls correctly for the cross wind condition, to maintain longitudinal alignment on the centerline of the runway prior to initiating and during the takeoff. • Transitions smoothly and accurately from the runway, into balanced, climbing flight maintaining the runway centerline	• Ensures operation of the aircraft within the airframe limitations as determined by the Pilots' Operating Handbook / AFM and Operations Manual, as Appropriate	• Correctly assesses the cross wind component
Short field Operations see Take-off (General)			
To determine that the applicant exhibits adequate knowledge of short-field take-off and initial climb	• Sets correct configuration for short field take-off and makes suitable adjustments to airspeed as required. • Taxies into the take off position so as to allow maximum utilization of available takeoff area and aligns the airplane on the runway centerline. • Rotates at the recommended airspeed, lifts off and accelerates to the recommended obstacle clearance airspeed or V_X. • Establishes the pitch attitude for the recommended obstacle clearance airspeed, or V_X and maintains that airspeed until the obstacle is cleared, or until the airplane is 50 feet (20 meters) above the surface whichever is greater. • After clearing the obstacle, accelerates to and maintains best rate of climb airspeed or V_y, • Maintains takeoff power to a safe maneuvering altitude. • Maintains directional control and proper wind-drift correction throughout the takeoff and climb	• Determines maximum performance, configuration, power and airspeeds in accordance with Operations Manual or AFM	

TAKE – OFF AND DEPARTURE PROCEDURES (TAKE-OFF)			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Take-off at Maximum Mass see Take-off (General)			
To determine that the applicant exhibits knowledge of the elements of takeoff and climb at maximum take-off mass	• Sets correct configuration for maximum mass take-off and makes suitable adjustments to airspeed as required. • Positions and aligns the airplane for maximum utilization of available take off area. • Establishes the pitch attitude for the recommended Obstacle clearance airspeed, or V_X and maintains that airspeed until the obstacle is cleared, or until the airplane is 50 feet (20 meters) above the surface • Establishes correct obstacle clearance track during Climb	• Determines maximum performance, configuration, power and airspeeds in accordance with Operations Manual or AFM	
ATC Clearances			
To determine that the applicant exhibits adequate knowledge of the elements related to ATC clearances and pilot/controller responsibilities to include tower en-route control and clearance NOTE: The ATC clearance may be an actual or simulated ATC clearance based upon the flight plan	• Sets the appropriate communication and navigation frequencies and transponder codes in compliance with the ATC clearance	• Determines that it is possible to comply with ATC clearance • Uses standard phraseology when reading back clearance	• Copies correctly, in a timely manner, the ATC clearance as issued. • Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. • Reads back correctly, in a timely manner, the ATC clearance in the sequence received

TAKE – OFF AND DEPARTURE PROCEDURES (AERODROME DEPARTURE)			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
IFR/VFR Departures			
To determine that the applicant exhibits adequate knowledge of VFR or IFR departure procedures	• Makes correct use of Instruments, flight director, autopilot, navigation equipment and communication equipment appropriate to the performance of the procedure. • Intercepts, in a timely manner, all courses, radials, and bearings (QDM/QDR's) appropriate to the procedure, route, ATC clearance, or as directed by the examiner. • Maintains the appropriate airspeed, altitude, headings	• Uses the current and appropriate navigation publications for the proposed flight. • Performs the airplane briefing/checklist items appropriate to the departure. • Establishes communications with ATC, using proper phraseology. • Complies, in a timely manner, with all ATC clearances, instructions, and restrictions. • Exhibits adequate knowledge of two-way communications failure procedures. • Adheres to airspeed restrictions and adjustments required by regulations ATC, the Pilot's Operating Handbook the AFM, and the examiner. • Complies with the provisions of the climb profile, SID, and other departure procedures, as appropriate • Performs correct altimetry procedures, in accordance with the regulations, operational procedures and ATC requirements • Completes the appropriate checklist	• Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. • Demonstrates terrain awareness, orientation, division of attention, and proper planning. • Ensures that correct crew and passenger briefings are completed • Liaises with other crewmembers for correct operation of the aircraft systems during departure. (MPA) • Demonstrates orientation, division of attention, and proper planning. • In VMC, demonstrates adequate lookout and traffic avoidance

GENERAL HANDLING OR MANOEUVRES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Normal Operation of All Systems			
To determine that the applicant possesses adequate knowledge of the normal and abnormal procedures of the systems, subsystems, and devices relative to the airplane type (as may be determined by the examiner)	• Demonstrates the proper use of the airplane systems, subsystems, and devices (as may be determined by the examiner) appropriate to the airplane	• Completes the appropriate checklist • Follow correct procedures for controlling the aircraft with or without automatic flight control systems, in accordance with the Aircraft / Systems Manual and Operations manual, as appropriate	• Liaise with other crewmembers for correct operation of the aircraft systems
Airplane control (General)			
To determine that the Applicant exhibits safe control of the airplane throughout the flight and any maneuvers required by the examiner: Note: Where JCAR FCL requires Instrument flight to be demonstrated, Simulated IMC conditions must be generated by a means acceptable to CARC and the Examiner. This method is to be agreed with the applicant, before flight.	Exhibits safe control of the airplane by observing: • Magnitude of control input • Smoothness of control, within the limitations of the airframe and control systems	• Demonstrates correct use of cockpit check lists • Demonstrates management and monitoring of engine(s) and other airplane systems. • Follows correct procedures for controlling the aircraft with automatic flight control systems, in accordance with the Pilots' Operating Handbook / AFM and Operations manual, as appropriate	• Maintains adequate lookout, before, during and after execution of any maneuver by visual references. • Demonstrates correct crew co-ordination as required by type of operation (MPA). • Divides attention properly inside and outside cockpit. • Demonstrates orientation throughout the maneuvers. • Ensures that correct crew and passenger briefings are completed
Turns (General)			
To determine that the Applicant exhibits safe control of the airplane by reference to visual attitudes (and by instruments where appropriate to the flight) and is able to Medium Turns (30° bank)	• Transition to the turning attitude, using proper instrument crosschecks and coordinated control application. • Turn onto specific visual references and headings by visual references (and solely by reference to instruments where appropriate to the flight)	• Follow correct procedures for the controlling the aircraft with/without automatic flight control systems, in accordance with the Aircraft / Systems Manual and Operations manual, as Appropriate	• Maintain adequate lookout, before, during and after turning by visual references. • Demonstrate orientation throughout the maneuver • Liaise with other crew members for lookout (MPA) • Follow appropriate SOP for the confirmation of intended heading (MPA).
Medium Turns (30° bank) see Airplane Control (General) and Turns (General)			
To determine that the applicant exhibits safe control of the aircraft during level, constant airspeed, medium (30° bank) turns and	• Establishes the configuration specified by the examiner. • Maintains the assigned altitude and airspeed throughout the turn		

GENERAL HANDLING OR MANOEUVRES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Steep Turns (45° bank or More)	**see Airplane Control (General) and Turns**		
To determine that the applicant exhibits adequate knowledge of steep turns (if applicable to the airplane) and the factors associated with performance, wing loading, angle of bank, stall speed, pitch, power requirements, and over-banking tendencies	• Selects a safe height as recommended by the manufacturer, training syllabus, or other training directive, or as agreed with the Examiner. • Establishes the recommended entry airspeed, in straight and level flight. • Rolls into a coordinated turn of 360° with a bank angle of not less than 45°. Maintains the bank angle in a stable, balanced turn. • Applies smooth coordinated pitch, bank, and power adjustments to maintain the specified altitude, attitude and airspeed. • Avoids any indication of an approaching stall, abnormal flight attitude, or exceeding any structural or operating limitation during any part of the maneuver. • Rolls out of the turn, stabilizes the airplane in straight-and level flight or, at the discretion of the examiner, reverses the direction of turn and repeats the maneuver in the opposite direction. • Recovers accurately onto the desired heading and at the desired airspeed for straight and level flight		
Airplane Specific Handling Including Critical Mach No., Buffet and Tuck Under. see Airplane Control (General)			
To determine that the applicant exhibits knowledge of, and recognizes, the elements related to Tuck under and Mach buffets, after reaching the critical Mach number, and other specific flight characteristics of the airplane (e.g. Dutch Roll): Note: an airplane may not be used for this exercise	• Establishes the recommended configuration and airspeed/ Mach, and maintain that airspeed /Mach • Uses proper technique to enter into, operate within, and recover from, specific flight situations		

GENERAL HANDLING OR MANOEUVRES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Straight and level flight at constant speed and with speed changes		**see Airplane Control**	
Objective. To determine that the Applicant exhibits safe control of the aircraft, by reference to visual attitudes (and by instruments where appropriate) in balanced, straight and level flight	• Maintains altitude, heading and balance, by visual references (and solely by reference to instruments, if applicable to flight) using correct instrument confirmation, and coordinated control application • Maintains altitude, heading and balance, whilst accelerating / decelerating to specific speeds, as determined by the Aircraft Flight, Operations or Training manual, or as specified by the Examiner. • Maintains altitude, heading and balance, at different airspeeds, power settings and configurations as determined by the Aircraft Flight / Operations or Training manuals or as specified by the Examiner		
Climbs (General)	**see Airplane Control (General)**		
To determine that the applicant exhibits knowledge of the elements related to climbing at different speeds and configurations, by visual references (and solely by reference to instruments, if applicable to flight) throughout all operational levels of the airplane	• Transitions to the climb power setting and pitch attitude, on an assigned heading, using proper instrument crosschecks and interpretation, and coordinated control application. • Demonstrates climbing at correct airspeed, to specific altitudes / levels, in straight flight, and whilst turning onto specific headings. • Levels off at the assigned altitude or level and establishes straight and level cruise.	• Applies correct altimeter setting procedures as appropriate to the level change required	• Uses correct RT phraseology for level change requests and instructions from • Follows appropriate procedure for the confirmation of intended level (MPA

GENERAL HANDLING OR MANOEUVRES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Climbing at Vy	**see Airplane Control (General) and Climbs (General)**		
To determine that the applicant exhibits knowledge of the performance elements relevant to climbing the best rate of climb in accordance with the Pilots' Operating Handbook / AFM	• Establishes best rate of climb speed and configuration, specified in the Pilots' Operating Handbook / AFM	• Demonstrates knowledge of climb performance and procedures	
Climbing at Vx	**see Airplane Control (General) and Climbs (General)**		
To determine that the applicant exhibits knowledge of the performance elements relevant to climbing at the best angle of climb (obstacle clearance climb) in accordance with the Pilots' Operating Handbook / AF M:	• Establishes best angle of climb speed and configuration, specified in the Pilots' Operating Handbook / AFM. • Turns onto specified headings whilst preserving the best angle of climb. • Transitions to climbing flight at best rate or other configuration, as determined by the examiner	• Demonstrates knowledge of obstacle clearance climb requirements	
Flight at Critically High Airspeed	**see Airplane Control (General)**		
To determine that the applicant exhibits knowledge of the elements related to critically high airspeeds	• Recognizes the critical high airspeed. • Establishes the recommended configuration and airspeed, and maintains that airspeed • Controls airplane smoothly within airplane limitations	• Follows the appropriate action in accordance with the flight manual	
Flight at Critically Low Airspeed	**see Airplane Control (General)**		
Objective. To determine that the applicant exhibits knowledge of the elements related to critically low airspeed	• Recognizes the critical low airspeed. • Establishes the recommended configuration and airspeed, and maintains that airspeed and desired heading • Controls airplane smoothly within airplane limitations	• Follows the appropriate action in accordance with the flight manual	

:

GENERAL HANDLING OR MANOEUVRES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Stalling General see Airplane Control (General)			
To determine that the applicant exhibits adequate knowledge of the factors which influence stall characteristics, including the use of various drag configurations, power settings, pitch attitudes, mass, and bank angles. Also, exhibits adequate knowledge of the proper procedure for resuming normal flight	• Slowly establishes the pitch attitude (using trim or elevator/stabilizer) ,bank angle, and power setting that will the desired target airspeed. Trim must not be used at less than 1.3 of Vs • Recognizes and announces the first indication of a stall appropriate to the specific airplane design and initiates recovery as directed by the examiner • Recovers to a reference airspeed altitude and heading, allowing only the acceptable altitude or airspeed loss and heading deviation using manufacturers recommended technique • Demonstrates smooth, positive control during entry, approach to a stall, and recovery	• Selects an entry altitude in accordance with safety requirements When accomplished in an FTD or flight simulator, the entry altitude may be at low, intermediate, or high altitude as appropriate for the airplane and the configuration, at the discretion of the examiner • Completes appropriate before stalling checklist.	• Ensures the airplane is in a safe area and clear of hazards prior to accomplishing an approach to a stall
Full Stall & Recovery in the Clean Configuration see Airplane Control (General) and Stalling (General)			
To determine that the applicant exhibits adequate knowledge of the full stall and recovery with entry from level flight with gear and flaps retracted	• Maintains level flight and desired heading on entry. • Recovers at the first sign of the full stall or as directed by examiner		
Approach to Stall & Recovery in Different Configurations see Airplane Control (General) and Stalling (General			
To determine that the applicant exhibits knowledge of the elements related to maneuvering during slow flight and approaching a stall in various configurations	• Configures the airplane as required by the examiner, from level flight, or descending as if on an approach path. • Recovers at the first indication of an impending stall as appropriate to airplane design, and initiates recovery or as directed by the examiner. • Retracts gear and flaps as appropriate.	• Selects an entry altitude in accordance with AFM or POH • Completes the appropriate briefing/checklist including go-around or after take-off checks	

GENERAL HANDLING OR MANOEUVRES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Descent With and Without Power	**see Airplane Control (General)**		
To determine that the applicant exhibits knowledge of the elements related to visual attitude /instrument flying during straight, constant airspeed and constant rate descents	• Establishes the descent configuration • Transitions to the descent pitch attitude and power setting on an assigned heading using proper instrument crosscheck and interpretation, and coordinated control application • Level off at the assigned altitude with correct co-ordination of power, attitude and balance • Achieves straight and level flight at the assigned altitude, at the correct speed heading and in trim	• Apply correct changes to altimeter settings as appropriate to the level change required. • Use correct RT phraseology for level change requests and instructions from ATC	
Recovery from Unusual Attitudes (visual and instrument flying)	**see Airplane Control (General)**		
To determine that the applicant exhibits knowledge of the elements related to attitude flying during recovery from unusual attitudes. Note: includes recovery from spiral dive	• Recovers promptly to a stabilized level flight attitude using smooth, coordinated control application in the correct sequence using visual attitude flying or instruments as required • Avoids exceeding airframe limitations		• Demonstrates orientation, division of attention, and proper planning. • Recognizes unusual flight attitudes
Limited Panel Instrument Flying	**see Airplane Control (General)**		
To determine that the applicant exhibits knowledge of the elements related to attitude instrument flying with limited panel during straight-and-level flight, straight, constant airspeed climbs, straight constant airspeed descents, turns to headings and unusual attitudes solely by reference to the basic flight instruments to simulate a system failure, a failure of the vacuum- and gyro-powered instruments (e.g. the attitude and heading indicators) using proper instrument crosscheck and interpretation, and coordinated control application	• Does not exceed airframe limitations. • Turns using no more than rate 1. • When making small heading corrections with the magnetic compass as when tracking a VOR radial or localizer use timed turns • Does not chase instrument indications or is not over controlling • Maintains a proper instrument scan. • Maintains heading altitude and airspeed within the prescribed limits	• Turns on the pitot heat well before flying in cloud or visible precipitation no matter what the temperature. • Opens a dedicated alternate source of static air for the airplane's pitot-static instruments. • Completes the appropriate checklist. • Use correct R/T procedures with ATC	• Demonstrates orientation, division of attention, and proper planning

EN-ROUTE PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Flight Planning			
To determine that the applicant exhibits knowledge of flight planning by planning a VFR navigation flight as assigned by the examiner. The flight shall be planned using latest forecast/actual weather	• Plots a course for the intended route of flight. • Identifies airspace, obstructions, and terrain features. • Selects easily identifiable en route checkpoints. • Selects the most favorable altitudes. • Computes headings, flight time, and fuel requirements. • Selects appropriate navigation systems /facilities and communication frequencies. • Confirms availability of alternate aerodromes.	• Uses appropriate current aeronautical charts. • Extracts and records pertinent information from NOTAM'S, the Aerodrome/Facility Directory, and other flight publications. • Completes a navigation log and files a VFR flight plan	
VFR Navigation (Dead reckoning, Map reading and Orientation.)			
To determine that the applicant exhibits knowledge of the elements related VFR navigation	• Follows the pre-planned track solely by reference to landmarks. • Identifies landmarks by relating surface features to chart symbols. • Navigates by means of pre-computed headings, ground speeds, and elapsed time. • Verifies the airplane's position in relation to the flight-planned route. • Correctly assesses track error and makes suitable adjustments to heading. • Arrives at the en route checkpoints and destination at the revised ETA	• Corrects for and records the differences between pre-flight fuel, ground speed, and heading and time calculations and those determined en route. • Completes all appropriate checklists. • Uses correct altimetry procedures	• Divides attention properly inside and outside cockpit. • Demonstrates orientation, division of attention, and proper planning • Maintains adequate lookout for other air Traffic
Navigation Systems & Radar Services			
To determine that the applicant exhibits knowledge of the elements related to navigation systems and radar services	• Locates the airplane's position using radials, bearing (QDM/QDR's), DME range or co-ordinates, as appropriate. • Intercepts and tracks a given radial or bearing (QDM/QDR), if appropriate. • Recognizes and describes the indication of station passage, if appropriate • Recognizes signal loss and takes appropriate action	• Selects, identifies and checks the appropriate navigation system / facility. • Uses proper communication procedures when utilizing ATC radar services • Completes all appropriate checklists • Uses the appropriate level of service for phase of flight	

EN-ROUTE PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Lookout & Collision Avoidance			
To determine that the applicant exhibits collision avoidance by adequate lookout. In IMC makes suitable use of radar services or other sources of traffic information to avoid collision	• Uses proper visual scanning technique. • Understands relationship between poor visual scanning habits and increased collision risk. • Uses TCAS or other collision avoidance equipment if fitted • Takes appropriate avoiding action if Required		• Correctly divides attention inside and outside the cockpit. • Correctly shares lookout and collision avoidance task with other crew members • Uses correct R/T procedure for collision avoidance. • Uses correct TCAS procedure where Appropriate • Requests correct level of radar service appropriate to flight conditions • Avoids situations that involve the greatest collision risk
Maintenance of Altitude, Heading & Speed			
To determine that the applicant is able to fly accurately while carrying out other activities such as navigation	• Maintains straight-and-level flight by visual attitude flying (or solely by reference to instruments in IMC) using proper instrument cross check and interpretation, and coordinated control application. • Maintains the applicable airspeed, headings and altitude	• Completes checklist items	• Demonstrates correct crew co-ordination
Altimeter Setting			
To determine that the applicant applies correct altimeter setting procedures:		• Applies correct altimeter sub scale settings for each stage of flight • Carries out altimeter checks and altitude call–out in accordance with Operations Manual	• Demonstrates correct crew coordination as required by type of operation (MPA)
Timing & Revision of ETA's			
To determine that the applicant correctly assesses and adjusts timing (ETA) Note: also see VFR Navigation	• Ensures arrival at navigation point at ETA ±3 minutes	• Monitors flight progress and uses flight plan to give estimated time of Arrival (ETA) at navigation points • Revises ETA when appropriate.	

EN-ROUTE PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Monitoring of Flight Progress, Flight Log, Fuel Usage, Instrument Monitoring			
To determine that the applicant can maintain good cockpit management, monitor the flight and keep suitable records		• Maintains a flight log of Clearances, position fixes, times, ETAs, fuel states, and information as required by Operating Procedures, such that the flight may be reconstructed from the log after landing	• Manages cockpit duties in an efficient manner. • Ensures correct division of crew duties.(MPA) • Monitors fuel usage • Monitors aircraft systems and Instruments
Observation of Weather Conditions			
To determine that the applicant is able to assess weather conditions, decide whether flight may continue in accordance with VFR, or plan and execute alternative action	• Exhibits adequate knowledge of the elements of observation of weather conditions and obtaining preflight weather briefings and in-flight weather information	• Complies with Operations Manual or aircraft manual weather limitations	• Exhibits adequate assessment when VFR flight is proposed and sky conditions or visibilities are present, or forecast, that would make flight under VFR doubtful • Exhibits adequate assessment of winds aloft • Exhibits adequate assessment of current and reported weather conditions • Makes satisfactory GO/NO GO or in flight decisions based on correct assessment of weather conditions • Plans and correctly executes weather avoidance when necessary in-flight
Diversion to Alternate Destination/Aerodrome			
To determine that the applicant exhibits adequate knowledge of planning and executing a diversion from pre-planned track to an alternative destination / aerodrome Note: Diversion to a new destination is normally initiated by the examiner	• Maintains the applicable airspeed, headings and altitude • Exhibits adequate navigational skill to reach destination within time limit	• Completes the appropriate checklist. • Obtains appropriate ATC service. • Completes flight log. • Complies with Operations Manual Procedures	• Selects an appropriate alternate aerodrome if necessary. • Plans a suitable route to the new destination. • Diverts promptly toward the new destination • Makes an accurate estimate of heading, groundspeed, arrival time and fuel consumption to the alternate aerodrome /destination

EN-ROUTE PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Intercepting & Tracking Radio Navigation Aids (VOR, NDB, DME)			
To determine that the applicant exhibits adequate knowledge of the use of Radio Navigation aids, and is able to intercept and maintain specified bearings or radials or tracks	• Intercepts and tracks a specific bearing/radial (QDM/QDR) to or from the NDB facility, using appropriate interception procedures • Intercepts and tracks a specific DME arc if required, using appropriate interception procedures. • Maintains, while intercepting and tracking, the applicable airspeed, headings and altitude. • Applies proper correction for wind to maintain track	• Correctly tunes and identifies the facility. • Correctly sets cockpit displays (HISRMI etc.) • Correctly monitors the facility for failure (failure flags, coding etc as appropriate) • Recognizes facility failure, and, when required, reports the failure to ATC. • Determines accurately the relative bearing (QDM/QDR) of the VOR/ NDB facility. • Determines the aircraft position relative to the facility. • Completes the appropriate checklist Selects an appropriate alternate aerodrome if necessary.	• Correctly utilizes crew to operate equipment and identify navigational aids (MPA)
Ice Protection Procedures			
To determine that the applicant exhibits knowledge of the elements related to ice protection equipment and procedures	• Inspects all surfaces of the airplane with emphasis on ice. • Clears all surfaces of ice before flight • Operates anti/de-icing equipment correctly.	• Taxies and accomplishes the before takeoff check adhering to good operating practice for flight into icing conditions. • Performs takeoff and climb, cruise, descent and landing with emphasis on correct procedures in icing conditions. • Completes all appropriate briefing/checklists	• Monitors ice accretion during flight. • Plans and executes ice avoidance if necessary. • Demonstrates correct crew coordination as required by type of operation
ATC Liaison – Compliance, RT Procedures – Airmanship (applies to all phases of flight)			
To determine that the applicant uses correct R/T procedures, complies with ATC instructions and conducts the flight efficiently and safely	• Operates radio equipment correctly. • Operates transponder correctly	• Uses ICAO R/T phraseology. • Speaks clearly on R/T. • Reads back clearances correctly. • Complies with ATC clearances or Instructions	• Manages flight safely with due regard to weather, other traffic and procedures – see description of Airmanship on page

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

ABNORMAL AND EMERGENCY PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Rejected Take-off	**see Abnormal and Emergency Procedures (General)**		
To determine that the applicant exhibits adequate knowledge of the technique and procedure for accomplishing a rejected take off after engine/system(s) failure /warnings, including related safety factors Note: if no FTD available a rejected take-off reasonable speed must be determined (e.g. 50% of VMCA) giving due consideration to airplane characteristics, runway length, surface conditions, wind direction, brake heat energy, and any other factors that might adversely affect safety.	• Abandons the takeoff if any major problem or failure occurs at a point during the takeoff where the abort procedure can be initiated and the airplane can be safely stopped on the remaining runway/stop way • Uses spoilers, propeller reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, maintaining positive control in such a manner as to bring the airplane to a safe stop.	• Accomplishes the appropriate engine failure or other procedures and/or briefing/ checklists as set forth in the Pilot's Operating Handbook or AFM. • Completes the appropriate briefing/ checklist	• Takes into account, prior to beginning the takeoff, operational factors, which could affect the maneuver such as Take off Warning Inhibit Systems or other airplane characteristics, runway length, surface conditions, wind, obstructions, and other related factors that could affect takeoff performance and could adversely affect safety. • Identifies critical situation and makes timely decision to abandon take-off. • Informs ATC when practicable.
Simulated Engine Failure Between V_1 & V_2 (ME Airplanes Simulator Only) **see Abnormal and Emergency Procedures (General)**			
To determine that the applicant exhibits adequate knowledge of the procedures used during engine failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required. SIMULATOR ONLY: On a multi-engine airplane with published V1,VR, and/or V2 speeds (performance Class A), the failure of the most critical engine should be simulated at a point: After V1 and prior to V2; or As close as possible after V1 when V1 and V2 or V1 and VR are identical.	• Maintains the airplane alignment with the heading appropriate for climb performance and terrain clearance when engine failure occurs. • Adjusts the engine controls as recommended by the approved guidance for the existing Condit	• Completes required checks prior to starting takeoff to verify the expected engine performance.	• Takes into account, prior to beginning the takeoff, operational factors which could affect the maneuver such as Takeoff Warning Inhibit Systems or other airplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety. • Identifies critical situation and makes timely decision to continue take-off.

ABNORMAL AND EMERGENCY PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Simulated Engine Failure After Take-off, (SE Airplane Only) (General)		**see Abnormal and Emergency Procedures**	
To determine that the candidate exhibits knowledge of the elements related to engine failure after take-off	• Maintains control following engine failure • Establishes the recommended glide airspeed. • Trims the airplane, and maintains control. • Simulates feathering the propeller if applicable. • Flies a suitable approach to chosen landing area such that a safe landing would not be in doubt	• Carries out the recommended emergency procedure. • Follows the checklist to verify procedures for securing the engine. • Demonstrates engine restart in accordance with recommended procedures if appropriate	• Recognizes engine failure. • Attempts to determine the reason for the engine malfunction, if appropriate. • Selects a suitable landing area, noting any surface conditions, obstructions or other hazards that might hinder a safe landing
Simulated Engine Failure After Take-off, ME Airplane Only		**see Abnormal and Emergency Procedures (General)**	
To determine that the candidate exhibits knowledge of the elements related to engine failure after take-off.	• Maintains control following engine failure. • Reduces drag, and verifies the inoperative engine. • Secures the inoperative engine, if appropriate. • Simulates feathering the propeller of the inoperative engine, if appropriate. • Establishes VYSE; if obstructions are present, establishes V XSE or VMC +10, whichever is greater, until obstructions are cleared, then transitions to VYSE. • Banks toward the operating engine up to 5° as required for best performance trims the airplane and maintains control. • Monitors the operating engine and makes adjustments as necessary.	• Carries out the recommended emergency procedure.	• Recognizes engine failure promptly and correctly identifies inoperative engine. • Assesses the airplane's performance capabilities and makes suitable decision to continue climb, return to aerodrome or prepare for a forced landing.

ABNORMAL AND EMERGENCY PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Simulated Engine Failure, Shutdown and Restart at Safe Height (ME Airplanes Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the flight characteristics and controllability associated with maneuvering with engine(s) inoperative. To determine that the applicant can demonstrate an engine restart in flight. Note: These procedures must be initiated at a safe height	• Maintains positive airplane control to maintain coordinated flight, and properly trims for that condition. • Sets engine controls, reduces drag as necessary • Maintains the operating engine(s) within acceptable operating limits. • Maintains desired altitude when a constant altitude is specified and is within the capability of the airplane. • Maintains the desired airspeed and heading	• Follows the prescribed airplane checklist, and verifies the procedures for securing the inoperative engine(s). • Demonstrates proper engine restart procedures in accordance with approved procedure / checklist or the manufacturer's recommended procedures and pertinent checklist items.	• Correctly identifies and verifies the inoperative engine(s) after the failure • Determines the cause for the engine(s) failure and if a restart is a viable option.
Simulated Engine Failure During Approach (ME Airplanes Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits knowledge of the elements related to an approach and landing with an inoperative engine.	• Maintains crosswind correction and directional control throughout the approach and landing. • Sets the engine controls, reduces drag, and identifies and verifies the inoperative engine after simulated engine failure. • Simulates feathering the propeller of the inoperative engine, if appropriate. • Establishes the recommended best engine inoperative approach landing configuration, and airspeed. • Monitors the operating engine and makes adjustments as necessary. • Maintains a stabilized approach and the recommended approach airspeed until landing is assured. • Makes smooth, timely, and correct control application during the round out and touchdown. • Touches down smoothly at the predetermined zone, with no drift, and with the airplane's longitudinal axis aligned with and over the runway centerline.	• Carries out the recommended emergency procedure	• Recognizes engine failure promptly and correctly identifies inoperative engine. • Considers the wind conditions, landing surface, and obstructions, and selects the most suitable touchdown point.

ABNORMAL AND EMERGENCY PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Asymmetric Approach (ME Airplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits knowledge of the elements related to a published instrument approach with one engine inoperative (by reference to instruments). Note: see 'Instrument Approach Procedures' for assessment of instrument procedures and apply the additional criteria for asymmetric approaches.	• Establishes and maintains the recommended flight attitude and configuration for the best performance for all maneuvering necessary for the instrument approach procedure. • Maintains a stabilized approach and the recommended approach airspeed until landing is assured. • Monitors the operating engine(s) and makes adjustments as necessary.	• Complies with the published approach procedure. • Applies additional allowance to approach minima as required for asymmetric condition.	• Displays efficient cockpit management procedures throughout the approach.
Go-around with Engine(s) (Simulated) Inoperative (ME Airplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of a go-around procedure with one engine simulated inoperative, including the conditions that dictate a rejected landing, the importance of a timely decision, the recommended airspeeds	• Applies the appropriate power setting for the flight condition and establishes a pitch attitude necessary to obtain the desired performance. • Establishes a positive rate of climb and climb at the appropriate airspeed to the correct acceleration altitude. • Retracts the wing flaps / drag devices and landing gear, if appropriate, in the correct sequence. • Trims the airplane as necessary, and maintains the proper ground track and altitudes during the rejected landing procedure	• Accomplishes the appropriate briefing/ checklist items in a timely manner in accordance with approved procedures.	• Makes a timely decision to reject the landing for actual or simulated circumstances and makes appropriate notification when safety of flight is not an issue

ABNORMAL AND EMERGENCY PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Landing with Engine(s) (Simulated) Inoperative (ME Airplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the flight characteristics and controllability associated with maneuvering to a landing with (a) engine(s) inoperative (or simulated inoperative) including the controllability factors associated with maneuvering, and the applicable emergency procedures.	• Establishes the approach and landing configuration appropriate for the runway and meteorological conditions; and adjusts the engine controls as required. • Maintains a stabilized approach and the desired airspeed • Maintains the operating engine(s) within acceptable operating limits • Accomplishes a smooth, positively controlled transition from final approach to touchdown. • Uses spoilers, propeller reverse, thrust reversers, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the airplane to a safe stop after landing. • Maintains positive directional control and crosswind corrections during the after-landing roll.	• Completes the applicable before landing checklist. • Completes the applicable after landing briefing/ checklist items in a timely manner, after clearing the runway, and as recommended by the manufacturer	
Emergency & Survival Equipment see Abnormal and Emergency Procedures			
To determine that the applicant exhibits knowledge of the elements related to emergency equipment and survival gear appropriate to the airplane provided for the flight test. Note: Examiner questions applicant on location and use of emergency equipment	• Location in the airplane. • Method of operation or use. • Servicing requirements. • Method of safe storage. • Equipment and survival gear appropriate for operation in various climates and topographical environments		

ABNORMAL AND EMERGENCY PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Simulated Forced Landing (SE Airplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of the flight characteristics, approach and forced (emergency) landing procedures, and related procedures to use in the event of an engine failure (as appropriate to the airplane). NOTE: No simulated engine failure shall be given by the examiner in an airplane when an actual touchdown could not be safely completed should it become necessary.	• Maintains positive control throughout the maneuver. • Establishes and maintains the recommended best glide airspeed and configuration during a simulated engine failure. • Establishes a proper flight circuit to the selected aerodrome or landing area • Uses configuration devices such as landing gear and flaps in a manner recommended by the manufacturer and/ or approved. • Flies a suitable approach to chosen landing area such that a safe landing would not be in doubt.	• Follows the emergency checklist items appropriate to the airplane	• Selects a suitable aerodrome or landing area, which is within the performance capability of the airplane. • Takes into account altitude, wind, terrain, obstructions, and other pertinent operational factors. • Determines the cause for the simulated engine failure (if altitude permits) and if a restart is a viable option.
Simulated Precautionary Landing (With Power) – (SE Airplane Only) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits knowledge of the elements related to lost procedures and precautionary forced landing with power.	• Maintains the appropriate heading, and if necessary, climbs. • Establishes a proper flight circuit to the selected aerodrome or landing area. • Flies a suitable approach to chosen landing area such that a safe landing would not be in doubt.		• Selects the best course of action when given a lost situation. • Attempts to identify nearest prominent landmark(s). • Uses available navigation aids and/or contacts an appropriate facility for assistance. • Plans a precautionary landing if deteriorating weather and/or fuel exhaustion is impending. • Selects a suitable aerodrome or landing area, which is within the performance capability of the airplane.

ABNORMAL AND EMERGENCY PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Fire Drills see Abnormal and Emergency Procedures (General)			
To determine that the applicant possesses adequate knowledge of the emergency procedures (as may be determined by the examiner) relating to the particular airplane type.	• Exhibits adequate knowledge of fire detection and extinguishing systems. • Performs all actions required by the fire drills. • Maintains airplane control.	• Demonstrates proper procedures in accordance with approved procedure / briefing/ checklist or the manufacturer's recommended procedures	• Identifies source of smoke/fire in a timely manner. • Takes care of passenger/ crew safety. • Initiates emergency descent/diversion if appropriate.
Wind shear During Take-off & Landing see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of wind shear at takeoff/ landing.	• Demonstrates sound judgment and knowledge of the airplane maneuvering capabilities throughout the procedure. • Adjusts airplane configuration and speeds as appropriate. • Maintains smooth and positive control within airplane limitations.	• Performs all procedures required for wind shear at take-off/landing and airplane control in a smooth, positive, and timely manner.	
Simulated Cabin Pressure Failure/Emergency Descent See Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge (simulated) cabin pressure failure/ emergency descent	• Demonstrates sound judgment and knowledge of the airplane maneuvering capabilities throughout the procedure. • Performs emergency descent in a smooth, positive, and timely manner without exceeding limitations.	• Demonstrates proper procedures in accordance with approved procedure/ briefing/ checklist or the manufacturer's recommended procedures and pertinent briefing/ checklist items.	
Incapacitation of Flight Crew Member (only for MPA) see Abnormal and Emergency Procedures (General)			
To determine that the applicant exhibits adequate knowledge of incapacitation of flight crewmember.	• Maintains airplane control in a smooth, positive, and timely manner.	• Performs all procedures for incapacitation of flight crewmember in accordance with approved procedure/ briefing/ checklist or the manufacturer's recommended procedures and pertinent briefing/ checklist item	• Identifies crew incapacitation in a timely manner. • Ensures safety of crewmember and clear of airplane controls.

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

INSTRUMENT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Setting Navigation Aids and Identification of Facilities see Arrival Procedures and Instrument Procedures (General)			
To determine that the applicant correctly selects and identifies all navigation and communications equipment, instrument references, flight director and associated navigational aids, for descent and arrival and exhibits adequate knowledge of the Morse Code.	• Tunes and identifies navigational facilities as appropriate to the procedure. • Correctly selects Navigational aids to flight instruments such as HSI, RMI, OBS, flight director, autopilot etc. as appropriate. • Demonstrates adequate knowledge of Morse Code to identify aids. • Demonstrates correct use of course indicators to indicate QDM/QDR. • Demonstrates correct use of communications equipment including SSR equipment.		• Monitors Navigation equipment for signal/ equipment failure.
Approach and Landing Briefing, Including Descent, Approach and Landing Checks see Arrival Procedures and Instrument Procedures (General)			
To determine that the applicant exhibits adequate knowledge of approach and landing briefings, whether single or multi-pilot, including descent, approach and landing checks. NOTES: The approach briefing should include weather considerations and confirmation of instrument approach procedure minima. All procedures, checks and drills in preparation for landing and for missed approach. The briefing shall include appropriate corrections for PEC and temperature adjustments, as well as performance considerations and reference speeds to be used. The applicant shall be required also, to ensure that the passengers receive a safety briefing.	• Demonstrates sound judgment and consideration of the airplane maneuvering capabilities throughout the briefings. • Performs all procedures required and maintains airplane control in a smooth, positive, and timely manner.	• Presents proper briefings in accordance with the operator's standard, approved procedures or the manufacturer's recommended procedures for the correct operation of the aircraft systems.	• Involves other crew members in the briefing and correctly follows correct SOP for confirmation of the intended approach procedure, approach minima and missed approach procedure. • Demonstrates orientation, division of attention and proper planning for the approach and landing phase. • Includes due consideration for missed approach procedures and diversion planning, in the briefing.

INSTRUMENT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Holding Procedures see Arrival Procedures and Instrument Procedures (General)			
To determine that the applicant, In actual or simulated instrument conditions, exhibits adequate knowledge of and proficiency in holding procedures for standard and non standard, published and non-published IFR holding patterns.	• Changes to the recommended holding airspeed appropriate for the airplane and holding altitude, so as to cross the holding fix at or below maximum holding airspeed. • Uses wind-drift correction techniques accurately to maintain the appropriate joining and holding pattern and to establish and maintain the correct tracks and bearings. • Maintains the appropriate airspeed, altitude and headings accurately to establish and maintain the correct tracks and bearings. • Demonstrates adequate knowledge of holding endurance, including, but not necessarily limited to, fuel on board, fuel flow while holding, fuel required to alternate, etc.	• Recognizes arrival at the clearance limit or holding fix. • Follows appropriate entry procedures in accordance with standard operational procedures or as required by ATC or the examiner. • Complies with ATC reporting requirements. • Uses the correct timing criteria where required by the holding procedure, ATC or the examiner's instructions. • Makes appropriate adjustments to then procedure timing, to allow for the effects of known wind. • Makes appropriate adjustments in order to arrive over the holding fix as close as possible to the "Expected Approach Time"	

INSTRUMENT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Instrument Approaches (General)			
To determine that the applicant exhibits adequate knowledge of altitude, speed and heading control and performs a stabilized approach in the correct configuration.	• Establishes the appropriate airplane configuration and airspeed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions. • Prior to beginning the final approach segment, maintains the desired altitude, heading and airspeed and accurately tracks radials, courses, and bearings, in accordance with the approach procedure or as directed by ATC. • Demonstrates satisfactory altitude, speed and heading control, with the aircraft in trim such that a stable approach path is achieved and maintained to the approach minima. • Transitions to a normal landing approach only when the airplane is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering.	• Selects, tunes, identifies, and monitors the operational status of ground and airplane navigation equipment used for the approach. • Advises ATC anytime the applicant is unable to comply with a clearance. • Completes the airplane briefing/ checklist items appropriate to the phase of flight or approach segment, including engine out approach and landing briefing/ checklists. • Follows the published approach procedure in accordance with ATC instructions, or as directed by the examiner. • Makes appropriate adjustments to the procedure timing, to allow for the effects of known wind. • Applies the necessary adjustments to the published approach minima criteria for the airplane approach category, and with due regard for - NOTAMS - Inoperative navigation equipment - Inoperative visual aids associated with the landing environment. - Reported weather conditions • Completes the appropriate briefing/checklist.	• Establishes two-way communications with ATC using the proper communications phraseology and techniques. • Copies correctly, in a timely manner, the ATC clearance as issued. • Ensures that correct crew and passenger briefings are completed • Ensures or confirms that passengers, crew etc are correctly secured for landing. • Demonstrates correct crew coordination as required by type of operation • Demonstrates orientation throughout the maneuver • Encourages participation of other crewmembers in accordance with approved SOP.

INSTRUMENT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Precision approach see Instrument Approaches (General)			
To determine that the applicant exhibits adequate knowledge and skill in accomplishing the precision instrument approach procedures, as determined by the examiner, with all engines operating, and / or with one engine inoperative, where applicable. NOTE: Precision approaches, using airplane NAVAID equipment for centerline and glide slope guidance may be accomplished in simulated or actual instrument conditions to Decision Altitude/Height (DA/DH) and must be flown without the use of an autopilot. Where the approach is required to be flown with one engine inoperative, simulated engine shutdown must be completed before the final approach segment. This engine out condition should be preserved until completion of the landing run or throughout the go-around procedure. For ILS displays with a normal scale, the approach should be contained within a half scale deflection of the localizer and glide slope indications. For aircraft with an expanded scale display of the localizer, the approach should be contained within the full scale deflection of the localizer and half scale deflection of the glide slope indications.	• Intercepts and tracks localizer within prescribed limits. • Establishes a predetermined rate of descent at the point where the electronic glide slope begins, in order to follow the glide slope. Maintains electronic glide slope within prescribed limits. • Arrives at the DA/DH in such a position that a landing, go-around or circling approach may be accomplished safely. • Avoids descent below the DA/DH before initiating a missed approach procedure or transitioning to a Landing. • Initiates immediately the missed approach, when at the DA/DH, if the required visual references for the runway are not unmistakably visible and identifiable. • Maintains localizer and glide slope during the visual descent from DA/DH to a point over the runway where glide slope must be abandoned to accomplish a normal landing	• See Instrument Approaches General	• See Instrument Approaches General
Non Precision approach see Instrument Approaches (General)			
To determine that the applicant exhibits adequate knowledge and skill in accomplishing the non-precision instrument approach procedures, as determined by the examiner, with all engines operating, and / or with one engine inoperative, where applicable.	• Establishes a rate of descent that will ensure arrival at the MDA/H (at, or prior to reaching, the visual descent point if published) with the airplane in a position from which a descent from MDA/H to a landing on the intended runway can be made, at a normal rate using normal maneuvering. • Executes the missed approach if the required visual references for the intended runway are not unmistakably visible and identifiable at the missed approach point.	• Demonstrates adequate judgment and knowledge of the airplane. performance in order to comply with published approach procedures equipment used for the approach.	

INSTRUMENT PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Circling Approach see Instrument Approaches (General)			
To determine that the applicant exhibits adequate, knowledge and skill in accomplishing circling approach procedures, as determined by operational conditions, or by the examiner, with all engines operating, and / or with one engine inoperative, where applicable.	• Demonstrates knowledge of circling approach categories, speeds and procedures. • Uses the appropriate airplane configuration for normal and abnormal situations and procedures. • Maneuvers the airplane, by visual references, after reaching the authorized circling approach altitude, to maintain a flight path that permits a normal landing on a runway at least 90° from the final approach course, or according to published procedure. • Maintains at least the published minimum circling level throughout the circling procedure until a position is reached, from which a descent to a normal landing can be made. • Maintains visual contact with the landing threshold throughout the circling procedure. • Performs the procedure without excessive maneuvering and without exceeding the normal operating limits of the airplane (the angle of bank should not normally exceed 30°).	• Confirms the direction of traffic and adheres to all restrictions and instructions issued by ATC. • Maintains the correct circling pattern and follows any prescribed tracks in accordance with the published procedure or as directed by ATC or the Examiner. • Turns in the appropriate direction, when a missed approach is dictated during the circling approach, and uses the correct procedure and airplane configuration	• Demonstrates sound judgment and knowledge of the airplane maneuvering capabilities throughout the circling approach.
Go-Around & Missed approach see Instrument Approaches (General)			
To determine that the applicant exhibits adequate knowledge and skill in the application of missed approach procedures associated with standard instrument procedures	• Initiates the missed approach procedure promptly by the timely application of power, establishes the proper climb attitude, and re-configures the aircraft in accordance with the approved procedures. • Maintains the desired altitudes, airspeed, heading and accurately tracks courses, radials, and bearings.	• Follows the recommended airplane briefing/checklist items appropriate to the go around procedure for the airplane used. • Complies with the appropriate missed approach procedure or ATC clearance	• Requests clearance, if appropriate, to the alternate aerodrome, another approach, a holding fix, or as directed by the examiner. • Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change.

ARRIVAL AND LANDING PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Aerodrome Arrival Procedures			
To determine that the applicant exhibits adequate knowledge of the appropriate arrival procedures and relevant pilot and controller responsibilities, and makes proper reference to the appropriate navigation publications and charts.	• Maintains the appropriate airspeed altitude, headings • Exhibits adequate knowledge of two way communications failure procedures.	• Uses the current and appropriate navigation publications for the proposed arrival routing. • Complies in a timely manner with ATC instructions and airspace restrictions. • Performs the airplane briefing / checklist items appropriate to the arrival. • Performs correct altimetry procedures, in accordance with the regulations, operational procedures and ATC requirements. • Completes the appropriate checklist.	• Establishes communications with ATC, using proper phraseology. • Interprets correctly the ATC clearance received and, when necessary, requests clarification, verification, or change. • Demonstrates terrain awareness, orientation, division of attention, and proper planning. • Liaises with other crewmembers for correct operation of the aircraft systems throughout the arrival phase. • Divides attention properly inside and outside cockpit. • Ensures that correct crew and passenger briefings are completed • Liaises with other crew members for lookout (where appropriate)

ARRIVAL AND LANDING PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
All landings (Including Normal Landing) General			
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of landings, with due regard for recommended approach angles, airspeed, configuration, performance limitations, wake turbulence, and safety factors (as appropriate to the airplane).	• Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required, to maintain the correct approach path and airspeed. • Maintains a ground track that ensures the desired traffic circuit will be flown, taking into account any obstructions and ATC or examiner requirements. • Makes proper correction for drift, (using existing wind conditions) and maintains a precise ground track. • Achieves and maintains a stabilized approach. • Accomplishes a smooth, positively controlled transition from final approach to touchdown. • Achieves a landing within the designated touchdown zone, at the correct speed, in the correct attitude and on the runway centerline. • Touches down with no side drift and with the airplane aligned with the runway centerline. • Maintains positive directional control throughout the landing roll. • Uses spoilers, propeller reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the airplane to a safe stop.	• Completes the appropriate pre-landing checklist • Completes the appropriate after-landing checklist items	• Ensures or confirms that passengers and crew are correctly secured for take-off / landing. • Correctly interprets the ATC clearance received and, when necessary, requests clarification, verification or change • Liaises with other crew members for correct operation of the aircraft systems during approach and landing. • Considers the wind conditions, landing surface and obstructions, and selects the correct touchdown point. • Listens to the RT environment to establish satisfactory awareness of other traffic • Demonstrates orientation, division of attention, and proper planning • Divides attention properly inside and outside cockpit. • Maintains adequate look-out for other airplanes • Notes any surface conditions, obstructions or other hazards that might hinder a safe takeoff / landing • Shows consideration for other airplanes on the ground and in the air

ARRIVAL AND LANDING PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Short Field Approach & Landing See All Landings General			
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of a short-field approach and landing.	• Maintains a stabilized approach and achieves the recommended approach airspeed, or in its absence at 1.3 VSO , with gust factor applied • Achieves a landing, accurately within the runway touchdown zone. • Applies brakes, spoilers, reverse thrust and / or such other devices for the slowing of the aircraft in accordance with the manufacturers' recommendations, to stop in the shortest distance consistent with safety and the certificated performance of the aircraft.		
Flapless Landing See All Landings General			
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of a safe landing without flaps or with slats /flaps malfunction.	• Maintains a stabilized approach at an appropriate approach speed, in accordance with the Pilot's Operating Handbook / AFMA • Accomplishes a smooth, positively controlled transition from final approach to touchdown.		• Makes due allowance for landing performance in the no flap/no slat configuration.
Approach and Landing with Idle Power (Single Engine Airplanes Only) See All Landings General			
To determine that the applicant exhibits satisfactory knowledge and skill in the execution of a safe landing with the engine at idle power.	• Reduces to idle power in such a position as to achieve a glide descent and landing on the runway, in an area pre-selected by the applicant or nominated by the examiner. • Adjusts pitch attitude to maintain the correct gliding airspeed. • Uses drag and configuration changes to ensure the touchdown point is within the selected area. • Applies brakes, to stop in the shortest distance consistent with safety.		• Uses correct RT phraseology to obtain the appropriate clearance and advise ATC of any technical problem. • Makes due allowance for traffic pattern and other airplanes • Correctly assess effect of wind on glide performance.

ARRIVAL AND LANDING PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Landing with simulated jammed horizontal stabilizer in any out-of-trim position See All Landings General			
To determine that the applicant exhibits adequate knowledge of the factors which influence control of the aircraft with jammed stabilizer, in any out-of-trim position, including the use of various drag configurations, power settings, pitch attitudes, weights, and bank angles	• Demonstrates sound judgment and knowledge of the airplane maneuvering capabilities throughout the procedure. • Maintains safe airplane control in a smooth, positive, and timely manner	• Demonstrates proper procedures in accordance with approved procedure/ briefing/checklist or the manufacturer's recommended procedures and pertinent briefing/ checklist items.	• Demonstrates satisfactory situation / problem analysis • Involves other crew members in problem analysis (MPA) • Shows correct fault diagnosis • Confirms fault diagnosis (with other crew members in MPA) • Reviews causal factors (with other crew members in MPA) • Identifies alternative courses of action, if appropriate • Involves other crew members in option analysis (MPA) • Confirms intended plan of action (with other crew members in MPA) • Uses correct RT phraseology to obtain the appropriate clearance and advise ATC of any technical problem.
Touch and go			
To determine that the applicant exhibits knowledge of the elements related to a touch and go including the importance of a timely decision to continue or to stop on the runway	• Establishes the recommended takeoff configuration and applies take-off power, to transition safely to normal or short field take-off, as appropriate to the aircraft type and the conditions • Maintains directional control and drift correction. • Establishes a safe climb in the correct configuration and at the correct speed.	• Complies with the appropriate traffic pattern and noise abatement procedures.	• Makes a timely decision to discontinue the landing.

ARRIVAL AND LANDING PROCEDURES			
OBJECTIVE	**TECHNICAL**	**PROCEDURAL**	**NONTECHNICAL**
Go-around from low height			
To determine that the applicant exhibits adequate knowledge and skill in a rejected landing procedure, including the conditions that dictate a rejected landing, the importance of a timely decision, the recommended airspeeds, and also the appropriate reconfiguration procedure. NOTE: The maneuver may be combined with visual, instrument, circling, or missed approach procedures, but instrument conditions need not be simulated below 100 feet (30 meters) above the runway. This maneuver should be initiated in the landing configuration, when approximately 50 feet (15 meters) above the runway and approximately over the runway threshold or as recommended.	• Applies the appropriate power setting for the flight condition and establishes a pitch attitude necessary to obtain the desired performance. • Retracts the wing flaps/ drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, establishes a positive rate of climb and the appropriate airspeed • Trims the airplane as necessary, and maintains the proper ground track during the rejected landing procedure	• Accomplishes the appropriate checklist items in a timely manner in accordance with approved procedures.	• Makes a timely decision to reject the landing for actual or simulated circumstances and makes appropriate notification when safety-of-flight is not an issue. • Demonstrates proper consultation with other crew members (MPA) • Liaises with other crew members for correct operation of the aircraft systems whilst changing power setting, configuration and airspeed (MPA). • Correctly interprets the ATC clearance received and, when necessary, requests clarification, verification or change
After Landing and taxiing			
To determine that the applicant exhibits adequate knowledge of safe after landing and taxi procedures as appropriate.	• Demonstrates proficiency by maintaining correct and positive control. • Maintains proper spacing on other airplane, obstructions, and persons. Maintains the appropriate speed • Maintains constant vigilance and airplane control during the taxi operation.	• Accomplishes the applicable briefing/ checklist items and performs the recommended procedures. • Complies with instructions issued by ATC (or the examiner simulating ATC). • Observes runway hold lines, localizer and glide slope critical areas, and other surface control markings and lighting • Completes the appropriate checklist	• Demonstrates correct crew coordination as required by type of operation (MPA) • Ensures that correct crew and passenger briefings are completed • Liaises with other crew members for lookout (MPA) • Divides attention properly inside and outside cockpit
Parking and Securing			
To determine that the applicant exhibits adequate knowledge of parking and securing airplane procedures	• Correctly parks and secures airplane.	• Completes the airplane flight records including flight time records and discrepancies.	

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

MODULE 4 – Test Standards – Helicopter

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

MODULE 5 - Test Tolerances (Airplane and Helicopter)

The nominated tolerances are extracted from JCAR-FCL with some additional figures for standardization and general guidance of examiners shown in italics.

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

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

5.1 Airplane

Quick reference:

Test tolerances - Refer to JCAR-FCL 1 for changes to this quick reference table

PROFILE	PPL Skill Test	CPL Skill Test	IR, ATPL and all type or class skill test and proficiency checks
Altitude or Height (in feet)			
Normal Flight	± 150	± 100	± 100
With simulated engine failure	± 200	± 150	± 100
Limited or partial panel		± 200	± 200
Starting go-around at decision ALT/HT			+ 50 / - 0 (one engine inoperative + 100 / - 0)
Minimum descent altitude / height			+ 50 / - 0 (one engine inoperative +100/ - 0)
Circling minima			+ 100 / - 0
Tracking			
On radio aids	± 10°	± 5°	± 5°
Precision approach			half scale deflection azimuth and glide path
DME arcing			± 1nm

Heading

All engines operating	± 10°	± 10°	± 5°
With simulated engine failure	± 15°	± 15°	± 10°
Limited or Partial panel		± 15°	± 15°

Speeds (in knots)

Take-off / Vr	+ 10 / - 0	+ 5 / - 0	+ 5 / - 0
Climb and approach	± 15	± 10	± 5
Vat / Vref	+ 15 / - 5	+ 5 / - 0	+ 5 / - 0
Cruise	± 15	± 10	± 5
Limited or Partial Panel		± 10	± 10
With simulated engine failure	+ 15 / - 5	+ 10 / - 5	+ 10 / - 5
Blue Line speed or Vyse / V2	± 5	± 5	± 5
Maximum airspeed error in any other regime	± 15	± 10	± 10

5.2 Helicopter

Quick reference:

Test tolerances - Refer to JCAR-FCL 2 for changes to this quick reference table

PROFILE	PPL Skill Test	CPL Skill Test	IR, ATPL and all type skill test and proficiency checks

Altitude or Height (in feet)

Normal Flight	± 150	± 100	± 100 starting a go-around at DH + 50 MDH/MDA + 50 – 0
With simulated engine failure	± 200	± 150	
Hovering IGE	± 2		

Heading & Tracking

Normal Flight	± 10°	± 10°	± 5°
With simulated engine failure	± 15°	± 15°	On precision approach - half scale deflection azimuth and glide path

Speeds (in knots)

Take-off/approach	-10 / +15	± 5	All engines operating + 5 / - 0
All other regimes	± 15	± 10	With simulated engine failure +10 -5

Ground Drift (in feet)

Take-off, hover IGE	± 3	± 3	
Landing	No sideways or backwards movement	No sideways or backwards movement	

MODULE 6 – Private Pilot License (Airplane and Helicopter) – PPL (A/H)

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

The following comments and information are offered to assist the examiner to conduct a thorough flight test. These suggestions will aid in making accurate assessments of the applicant's skill and knowledge. All items of the skill test should be performed utilizing the Flight Test Standards of Module 3/4 and Tolerances of Module 5.

6.1 Airplane

Quick Reference:

JCAR reference:	Appendix 1 to JCAR-FCL 1.130 & 1.135
Who can test	FE, provided that they are individually authorized for this role Examiners shall not test applicants to whom they have given flight instruction for that license, (Progress and Safety Checks do not count as flight instruction). When an attempt is taken as two flights both parts are to be conducted by the same examiner.
Form used	

6.2 Foreword

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

Some items must be assessed through a dedicated exercise, for instance, item 2.h.i (stalling) requires an air work exercise as a medium. Other items are assessed without setting a particular drill because:

- They can be assessed through the normal situations of the flight. For instance, items 2.c.ii and 2.c.iii (climbing turns and leveling off) have a chance to be observable within the very first minutes of the flight.

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

6.3 Single Engine – Airplane/helicopter

6.3.1 Airplane/helicopter Familiarization and Preparation for Flight

6.3.1.1 Documents and Airworthiness.

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

6.3.1.2 Airplane/helicopter Performance.

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

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

6.3.1.3. Mass and Balance - Loading.

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

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

6.3.1.4 Pre-Flight Inspection.

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

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

a. Check to see if the applicant uses the briefing/checklist provided in the airplane/helicopter. If the examiner does not agree with the content of the briefing/checklist, the applicant should not be penalized. This would be an item for the examiner to discuss with the training unit or establishment, and if necessary CARC.

b. The check carried out by an applicant should cover at least the items mentioned in the appropriate Pilot Operating Handbook. The applicant should be questioned at this time to determine what action would be taken if the checks revealed a problem, (e.g. excessive magneto-drop, instruments not indicating when mixture or carburetor heat controls, etc. are selected and/or reset).

c. The applicant is expected to conduct the oral passenger safety briefing at this time.

6.3.1.6 Ancillary Controls

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

6.3.1.7 Taxiing

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

6.3.1.8 Steep Turn

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

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

6.3.1.9 Slow Flight

The aim of this exercise is to determine that the applicant can establish slow flight, control the airplane/helicopter and return to normal airspeeds., The applicant must be able to set the airplane in slow flight and change heading with appropriate angle of bank and then resume normal flight, at all times keeping control (bank, speed, altitude, slip). Failure to prevent a stall must be assessed as a fail.

6.3.1.10 Stall

The examiner must be aware of the manufacturer's recommendation in this regard for the type of airplane to be used on the flight test. The JCAR-FCL requirement is for a clean stall with a minimum loss of altitude.

6.3.1.11 Takeoff

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

b. Aircraft configuration and airspeeds utilized should be those specified in the Pilot Operating Handbook.

6.3.1.12 Circuit

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

6.3.1.13 Approach and Landing

In assessing the ability to land within a pre-determined touchdown zone it is not intended that examiners turn this item into a spot landing exercise, rather the applicant's ability to land within a specified portion of the runway is to be assessed. The overshoot will be assessed in conjunction with this exercise.

6.3.1.14 Simulated Precautionary Landing

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

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

6.3.1.15 Simulated Forced Landing

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

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

6.3.2 En route Navigation

6.3.2.1 Pre-flight Planning Procedures

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

The applicant shall:

a. Select a safe and efficient route complying with air-regulation.
b. Obtain and interpret weather information.
c. Determine the appropriate departure procedure.
d. Obtain operational information re en-route and destination aerodromes.
e. Determine the acceptability of the departure and destination runways under existing or forecast conditions.

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

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

6.3.2.2 Departure Procedure

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

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

6.3.2.3 En-route Procedure

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

6.3.2.4 Diversion to an Alternate

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

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

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

When tested at low level (reasonable height) the selected destination should not require the applicant to over-fly populated areas en-route. Remember this is not a test of pure navigational skills but is an assessment of ability to proceed to an alternate using mental dead reckoning and natural geographic features such as roads; railway tracks etc., if they are available. Rulers, protractors, and computers shall not be used for this procedure.

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

6.3.2.5 Instrument Flying and Use of Radio Navigation Aids

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

6.3.3 Emergency Procedures

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

b. It is not intended that all possible emergency procedures be assessed with each and every applicant. The examiners should request two emergency procedures in the testing of this exercise, one while airborne and the other with the airplane on the ground. Examiners should use a random sampling system, varying the emergency procedures requested to prevent the examiners flight test from becoming known to the applicants, and to ensure all systems and emergency procedures have been covered in training.

c. One method found very effective by many examiners, and one, which you may wish to use when assessing the emergency on the ground, is to assess this exercise either prior to engine start-up or upon returning to the apron, when the engine is shut down. With controls in the normal shutdown position, the examiner places the throttle, mixture, related switches, and the various ancillary controls etc., in the position they would normally be for an engine running at cruise power. The examiner will then describe to the applicant an emergency situation such as an engine fire. The examiner may then make an assessment based on how the applicant actually positions the appropriate controls, switches or valves associated with the drill rather than assessing only a verbal statement of how things should be done. Utilizing this method should preclude an applicant from receiving a favorable assessment based on the ability to recite an emergency drill when they in fact have no understanding or appreciation of the action the drill requires.

d. Examiners should not compound the requested emergencies, nor request so many that it becomes an exercise in endurance until such time as the applicant gets a procedure wrong.

6.3.4 Radio Communications

a. The demonstration of correct radio procedures throughout the whole flight requires the examiner to make the assessment of this exercise only when the flight has been completed.

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

6.4 Multi-Engine – Airplane (Reserved)

6.5 Helicopter

Quick reference:

PPL(H) Skill Test	
JCAR reference	Appendix 1 to JCAR-FCL 2.130 & 2.135
Who can test	PPL (H) - FE (H) Examiners shall not test applicants to whom they have given flight instruction for that license, (Progress and Safety Checks do not count as flight instruction). When an attempt is taken as two flights both the en-route procedure and General handling are to conducted by the same examiner The same FE (H) may be used for any second attempt but the student can opt for a change of FE (H). For further attempts CARC shall be consulted
Form used	
Test format	Skill Test as described in Appendix 2 to JCAR-FCL 2.135. The test may be completed in two parts, however Section 1 shall be included on each flight and the items of Section 5 may be tested on either flight.
Notes	**Training** If the test is to be conducted on a Multi-Engine helicopter then applicants must have 70 hrs PIC helicopters and have completed the JCAR-FCL 2 specified type rating requirements. The applicants must also have passed a written test set by the TRTO and approved by CARC, on the helicopter type (75% pass mark). **Training Validity (JCAR-FCL 2):** Skill test must be started within 6 months of completing flight instruction and subsequent tests must be completed within 6 months of the first attempt
Revalidation	Type rating valid for 1 year. Proficiency Check for revalidation may be completed within 3 months of due date with validity from due date

MODULE 7 – Commercial Pilot License (Airplane and Helicopter) – CPL (A/H)

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

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

7.1 Airplane

Quick Reference:

JCAR reference	Appendix 1 to JCAR-FCL 1.160 & 165.
Who can test	FE provided that they are individually authorized for this role Examiners shall not test applicants to whom they have given flight instruction for that license, (Progress and Safety Checks do not count as flight instruction). When an attempt is taken as two flights both parts are to be conducted by the same examiner.
Form used	

7.2 Expanded Guidance

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

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

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

Appendix 1 to JCAR-FCL 1.170 requires that the duration of the flight is to be at least 90 minutes. Section 3 normally takes about 1 hour and 15 minutes, and Sections 2 and 4 combined about 1 hour. Section 5 may be combined, at the discretion of the Examiner, with Sections 1 through 4, and Section 6, where applicable, may be combined with Section 1 through 5. The whole test could, therefore, take up to 2 hours and 30 minutes.

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

The following notes reflect the style and sequence of the briefing that the applicant may expect to hear. However, the examiner may make variations in the delivery of the briefing and may have to modify the sequence in which items are briefed and flown.

From pre-flight to post-flight the applicant will be assessed on his general flight management and flying skills.

7.3 Section 1

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

The applicant must instruct the Examiner on the actions he should take in the event of an emergency. Passenger briefing cards are acceptable but the examiner may ask questions.

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

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

The departure should comply with any instructions given by ATC.

7.4 Section 3

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

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

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

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

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

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

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

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

7.5 Section 2

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

7.5.1 Visual Air work

Control of the airplane by external visual reference including:

a. Straight and level flight at various airspeeds and configurations. Climbing and descending at various speeds and rates which may include best angle (Vx) and best rate (Vy).
b. Flight at critically low airspeeds and slow flight maneuvers.
c. Turns, including turns in landing configuration; level steep turns at not less than 45° bank; steep turns in a gliding configuration.
d. Flight at critically high airspeeds (approaching VNE) and recognition of, and recovery from, spiral dives. These maneuvers are often combined; the Examiner may put the airplane into a steep dive or a spiral dive with speed increasing rapidly and hand control to the applicant to initiate appropriate recovery action either to straight and level flight or into a climb.

e. Recognition and recovery from stalls:

- Normally the first stall will be a clean, fully developed stall entering from straight and level flight, with the throttle(s) closed.
- The second stall will be from an approach configuration, (flap setting and gear) and appropriate power. The stall should be initiated from a turn (level or descending with about 20° AOB) and the applicant should recover at the first symptom of the approaching stall.
- The third stall will be in a landing configuration and appropriate set power. The stall should be initiated from straight flight as if established on final approach to land (i.e. not climbing); the applicant must recover at the first symptom of the approaching stall.
- All recoveries shall be made with the minimum loss of height and returning to a clean climb, wings level.

7.5.2 Instrument Air work

Control of the airplane by sole reference to instruments including:

7.5.3 Full Panel:

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

7.5.4 Limited Panel:

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

7.6 Section 4

This section may be flown at the base aerodrome or at an alternate aerodrome nominated by the examiner before flight. Applicants will be expected to carry out a safe and expeditious join to the circuit. This involves entry to the most convenient point in the circuit with the airplane in the appropriate configuration and at the

correct speed. Applicants will be expected to carry out a number of approaches and landings (usually 'touch and go' landings) involving the following:

a. Normal landing.
b. Cross wind landing (when practical).
c. Go around from a low height/altitude.
d. Short field or Performance landing. This may be combined with a simulated bad visibility/low level circuit. In order to assess this exercise the Examiner may limit the amount of runway available.
e. Approach and landing without the use of power (glide approach). The examiner may limit the amount of runway available.
f. Approach and landing without the use of flaps (flapless).
g. Post flight action. The applicant will be responsible for taxiing and parking, after landing and shut down checks, and the completion of airplane documentation.

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

7.7 Section 5

The items of this section may be combined with Sections 1 through 4. The Examiner will simulate an abnormal or emergency situation; the applicant is expected to carry out the appropriate emergency actions. If drills involve the operation of fuel cocks, fuel shut off valves, mixture controls and any critical engine control, operations should be simulated by "touch actions" only. Emergency radio calls should be made aloud but not transmitted. Applicants should not assume that any simulated emergency is complete until told by the Examiner.

7.8 Section 6

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

The applicant will be expected to carry out a circuit to go-around under asymmetric power and an asymmetric approach to land. This section may, at the discretion of the Examiner, be combined with Sections 4 and 5 of the flight.

Applicants who are required to fly Section 6 will not be expected to fly the steep gliding turns in Section 2, the glide approach in Section 4 or the practice forced landing and engine failure at section 5.

7.8.1 Flight Simulator or Flight & Navigation Procedure Trainer

The following items may be performed in an (FNPT II):
a. Air work (Section 2) - items c and e (iv)
b. Abnormal and Emergency Procedures (Section 5) - all items
c. Simulated Asymmetric Flying (Section 6) - all items
The simulator or FNPT II must be approved for the purpose and of the same airplane type/class as used for the remainder of the skill test.

7.9 General Note

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

7.10 Helicopter

Quick reference:

CPL(H) Skill Test	
JCAR reference	JCAR-FCL 2 - Subpart D and Appendix 1 to JCAR-FCL 2.170
Who can test	CPL(H) - AE(H)
Form used	
Test format	Skill Test as shown in Appendix 2 to JCAR-FCL 2.170. The test may be completed in two parts, however Section 1 shall be included on each flight and items from Section 5 may be completed in either flight. Section 4 should normally be completed with Section 3 following the diversion
Form guidance	Failure of a second attempt requires the Form to be sent to CARC who may prescribe mandatory training. Following failure of a second attempt CARC may nominate another examiner for subsequent attempts. Countersign applicant's logbook if requested
Notes	The Skill Test will add the helicopter Type to the license when issued
Validity	Valid for 6 months. Applicants must complete all other requirements for license issue. After license issue type rating validity period is as for PPL(H)

MODULE 8 - Instrument Rating - IR (Airplane and Helicopter)

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

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

8.1 Airplane

Quick Reference:

Table 4 A	IR Skill Test
JCAR reference	JCAR-FCL 1.210
Who can test	IRE (an IRE or suitably authorized CRE may conduct the IR revalidation or renewal proficiency check)
Form used	
Test format	

8.2 General

The skill test and proficiency check will be performed according JCAR-FCL 1.210 and Appendix 1 to 1.210.

The skill test form is divided into six sections:

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

8.3 Test Conduct

Appendix 1 to JCAR-FCL 1.210/2.210 paragraph 5
The duration of the flight shall be at least one hour

The duration of the total test/check might be at least 2 hours. All sections of the test/check are to be completed in the course of the flight. The sequence of the sections may vary, depending of the circumstances and the briefing of the examiner.

8.4 Weather Minima

The weather minima for conducting the practical flight test/check for an IR (A) shall be in accordance with JCAR-Part 91.

8.5 The Airplane

The airplane for the IR –Skill tests/Proficiency checks shall be suitably equipped to simulate instrument meteorological conditions and suitably equipped for instrument flight training. (JCAR-FCL Appendix 1a of 1.055)

8.6 The composition of the flight crew and role of the examiner/safety pilot

Appendix 1 to JCAR-FCL 1.210/2.210 paragraph 9

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

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

8.7 The Briefings

The Pre flight briefing should be according to Module 2 of this FEM.

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

a. Simulation of instrument conditions.
b. Simulation of an engine failure.
c. Removal of radio aid information when required.
d. Actions to take in case of an actual emergency.
e. Use of the radio if required to perform the test.
f. Any other item to be determined by the examiner.

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

8.8 The Skill test

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

8.9 Test Tolerances

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

8.10 Helicopter

Quick reference:

IR(H) Skill Test	
JCAR reference	JCAR-FCL 2 Subpart E - Appendix 1 to JCAR-FCL 2.210
Who can test	IRE(H)
Test format	As shown in Appendix 2 to JCAR-FCL 2.210
Notes	Where RNAV is available this may be used as briefed by the IRE (H).

IR(H) Revalidation	
JCAR reference	JCAR-FCL 2 Subpart F - Appendix 3 to JCAR-FCL 2.240
Revalidation	12 months validity The revalidation may be flown within 3 months of the due date, the new validity being 12 months from that due date.
Who can test	TRE(H) with IR(H) privileges
Test format	As shown in Appendix 3 to JCAR-FCL 2.240 JCAR-FCL 2 recommends that the IR (H) be flown as an integral part of the pilot's annual SPH Type rating revalidation. The examiner may repeat items in flight. If the final result is a failure the failed item or items are, following any recommended mandatory retraining, to be rechecked on a subsequent flight. However, the examiner may fail the whole of the IR(H) revalidation if he considers it unacceptable, in which case the whole of the IR(H) section is to be repeated, again after mandatory retraining is completed

MODULE 9 – Type and Class Ratings (Airplane and Helicopter)

A guide to the structure of the skill test for rating issue and the revalidation proficiency check for then TRE and CRE

All items of the proficiency check test should be performed utilizing the Flight Test Standards of Module 3/4 and Tolerances of Module 5.

9.1 Airplane

Quick Reference:

JCAR reference	**SPA:** Appendix 3 to JCAR-FCL 1.240 **MPA:** Appendix 2 to JCAR-FCL 1.240 & 1.295
Who can test	**SPA:** CRE, FE(PPL), FE(CPL), FIE **MPA:** TRE
Form used	

9.2 SPA

Appendix 3 to JCAR–FCL 1.240

Contents of the class/type rating/training/skill test and proficiency check on single-engine and multi-engine single- pilot airplanes.

(See JCAR–FCL 1.240 through 1.262 and 1.295)

- **Para. 6**

  When a proficiency check on a single-pilot airplane is performed in a multi-pilot operation in accordance with JCAR-OPS 1, the type/class rating will be restricted to multi-pilot.

- **Para. 7**

  A flight simulator or FNPT II shall be used for practical training for type or multi-engine class ratings if the simulator or FNPT II forms part of an approved type or class rating course. The following considerations will apply to the approval of the course:

(a) The qualification of the flight simulator or FNPT II as set out in JCAR–STD;
(b) The qualifications of the instructors and examiner;
(c) The amount of flight simulator or FNPT II training provided on the course; and
(d) The qualifications and previous experience of the pilot under training.

9.3 Expanded guidance

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

AMC JCAR-FCL 1.425 paragraph 8

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

For SPA, the single route sector in 1.245(b) (2), if applicable, shall be completed as part of the proficiency check, in accordance to Appendix 3 to 1.240, item 4. For SE SPA, at least section 3A or 3B in the skill test/proficiency check shall always be completed.

For MPA, the single route sector may be included in the proficiency check, or completed separately prior to the proficiency check within the validity period.

9.4 Synthetic Training Devices (STDs)

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

9.5 MPA

MPA skill test and proficiency check the profiles may be conducted using the guidance in Module 10.

9.6 Helicopters

Quick Reference:

MPH.IR(H) – Initial issue skill test conducted on MP(H)	
JCAR reference	JCAR-FCL 2 Subpart F Appendix 2 to JCAR-FCL 2.240 & 2.295
Who can test	TRE (H).
Form used	
Test format	**The test is conducted in a similar manner to the IR (H) skill test conducted as SPH. The following considerations are required (also see under Notes);** • The pre –flight briefing is to be attended by all flight crew members • Briefing must specify that the Safety Pilot will not exercise judgment decisions or pre-empt P1 requirements. The P1 is to call for all checks and equipment set-up. **The following items are to be decided pre-flight:** • The method for simulating engine failure. • The method of screening and limited panel practice. • Items which for safety reasons cannot be conducted in flight which may be • checked by the examiner by oral questioning • Any minima that the P1 is subject to by the airplane operator
Notes	Unless the Examiner is rated on the type he shall not take the co-pilot seat unless specifically authorized by CARC. The Safety Pilot is to be qualified as a TRI (H) or equivalent and is to act as both lookout and safety pilot.
Revalidation	IR (H) is valid only for helicopter type on which the skill test is completed. MPH type rating and MPH IR (H) is not valid for SPH role on type and vice versa. If the rating lapses by more than 5 years it shall be renewed by MPH IR(H) renewal by an examiner of CARC and by skill test If the rating lapses by more than 7 years the entire IR(H) Skill Test and the IR Theoretical Knowledge exams shall be completed again

SPH type rating license skill test	
JCAR reference	JCAR-FCL 2 Subpart F Appendix 3 to JCAR-FCL 2.240
Form used	
Who can test	AE(H) - SEH/MEH, FE(H) - PPL SEH, TRE(H) - SEH/MEH
Notes	**Training** If the test is to be conducted on a Multi-Engine helicopter then applicants must have 70 hrs PIC helicopters and have completed the JCAR-FCL 2 specified type rating requirements. The applicants must also have passed a written test set by the TRTO and approved by the CARC, on the helicopter type (75% pass mark). **Testing** Applicants not wishing to revalidate an IR(H) shall omit this Section

SPH Type Rating Proficiency Check	
JCAR reference	Appendix 3 to JCAR-FCL 2.240
Period	12 months for all types (as defined in JCAR-FCL 2.220) Proficiency Checks can be flown up to 3 months before the expiry date with no loss to the original expiry date provided at least 2 flight hours have been completed on the type in the 12 month preceding expiry. If the expiry date is passed by less than 5 years the applicant may Renew the rating as above. If the expiry date has exceeded 5 years CARC may direct refresher training prior to a Renewal test flight
Who can test	AE(H) - SEH/MEH, FE(H) - PPL SEH, TRE(H) - SEH/MEH
Form used	
Test format	To revalidate by experience for SEH Piston group as shown in Appendix 1 to JCAR-FCL 2.245(b)(3): SEH Piston types as listed in Appendix 1 to JCAR-FCL 2.245(b)(3) may be revalidated by experience of 2 hours on each type in the 12 months preceding expiry provided a proficiency check is completed with an Examiner on one of the SEH Piston types on the list. The license entry for the type ratings revalidated by experience shall show the same validity expiry date as that on which the proficiency check was completed
Notes	Applicants with a valid IR(H) on the type shall revalidate their IR(H) as part of the check. However if the IR(H) has to be assessed separately due to weather it may be flown on a separate flight within the revalidation/renewal period and both flights should be signed off at the same time.

MODULE 10 – Airline Transport Pilot License (Airplane) – ATPL (A)

A guide to the structure of the ATPL skill test for the TRE

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

10.1 Airplane

Quick Reference:

JCAR reference	Appendix 1 to JCAR-FCL 1.240 & 1.295
Who can test	TRE
Form used	
Test Format	See below

10.2 Expanded guidance

Appendix 1 to JCAR–FCL 1.240 & 1.295
Skill test and proficiency check for airplane type/class ratings and ATPL

Test Format

1 The applicant shall have completed the required instruction in accordance with the syllabus. The administrative arrangements for confirming the applicant's suitability to take the test, including disclosure of the applicant's training record to the examiner shall be determined by CARC.

2 Items to be covered in skill tests are given in the applicable appendix 2 and 3 to JCAR-FCL 1.240. With the approval of CARC, several different skill test scenarios may be developed simulated line operations. The examiner will select one of these scenarios. Flight simulators, if available and other training devices as approved shall be used.

3 (a) **For SPA**: (Not included in this Module of the FEM).

(b) **For MPA**: The applicant shall pass all sections of the skill test/proficiency check. Failure of more than five items will require the applicant to take the entire test/check again. Any applicant failing 5 or less items shall take the failed items again. Failure in any item on the retest/check

including those items that have been passed at a previous attempt will require the applicant to take the entire check/test again.

(c) In case the applicant fails only or does not take Section 6, the type rating will be issued without Cat II or III privileges.

(d) Section 6 is not part of the ATPL skill test.

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

Conduct of the test/check – General

1. CARC will provide the examiner with safety criteria to be observed in the conduct of the test.

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

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

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

5. The test for a multi-pilot airplane shall be performed in a multi-crew environment. Another applicant, or another pilot, may function as second pilot. If an airplane, rather than a simulator, is used for the test/check, the second pilot shall be a TRI.

6. An applicant for the initial issue of an ATPL (A) shall be required to operate as 'pilot flying' (PF) during all sections of the test (in accordance with Appendix 2 to 1.240 & 1.295). The applicant shall also demonstrate the ability to act as 'pilot not flying' (PNF). The applicant may choose either the left hand or the right hand seat for the test.

7. The following matters shall be specifically checked when testing applicants for the ATPL (A) extending to the duties of a pilot-in-command, irrespective of whether the applicant acts as PF or PNF:

   (a) Management of crew co-operation;
   (b) Maintaining a general survey of the airplane operation by appropriate supervision; and,
   (c) Setting priorities and making decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation, including emergencies.

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

Flight Test Tolerances

1 The applicant shall demonstrate the ability to:

   (a) Operate the airplane within its limitations;
   (b) Complete all maneuvers with smoothness and accuracy;
   (c) Exercise good judgment and airmanship;
   (d) Apply aeronautical knowledge;
   (e) Maintain control of the airplane at all times in such a manner that the successful outcome of a procedure or maneuver is never in doubt;
   (f) Understand and apply crew co-ordination and incapacitation procedures, if applicable; and,
   (g) Communicate effectively with the other crew members, if applicable.

10.3 Test Tolerances: refer to Module 5

.

Content of the skill test

The skill test contents and sections are set out in Appendix 2 to JCAR-FCL 1.240 & 1.295.

The format and application form to the skill test will be determined by CARC, see IEM JCAR-FCL 1.240 (b) (1).

MODULE 11 – Examination of Instructors (Airplane and Helicopter)

A guide to the structure of flight instructor initial skill tests and revalidation proficiency checks for the FIE

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

11.1 General

The skill test and proficiency check are to be performed according to JCAR-FCL 1.345/2.345 and 1.355/2.355 (a) (3) set out in the Appendices 1 and 2 to JCAR FCL 1.330/2.330 and 1.345/2.345. The test comprises oral theoretical examinations on the ground, pre-flight and post flight briefings and in flight FI (A) demonstrations.

The skill test form is divided into 7 sections:

Section 1 Theoretical knowledge oral
Section 2 Pre-flight briefing
Section 3 Flight
Section 4 Other exercises
Section 5 Multi-engine exercises
Section 6 Instrument exercises
Section 7 Post flight de-briefing

Note that:

- Section 1 is subdivided into two parts:
  a. A short lecture < 45 minutes, the subject selected from items 1-8 of Section 1, the applicant being advised of the subject the previous day.
  b. An oral exam for knowledge of items 1-9 of Section 1 and the 'teaching and learning' content given in the FI (A) courses.

- Section 4 is intentionally left blank on forms and is used for additional flight instructor demonstrations, as decided by the examiner and acknowledged by the applicant before the skill test.

- Section 5 will be used for a FI (A) rating for ME (SPA) or CRI (ME) (A).

- Section 6 will be used for a FI (A) for instrument rating or IRI (A).

All sections should be completed within a period of 6 months; however, if possible the test/check should be completed in 1 day.

Failure in any exercise within Sections 2, 3, 4, 5, and 6 requires a re-test covering all exercises. Section 1, if failed, may be retaken separately.

The weather minima for the FI/CRI/IRI skill test and proficiency check will be determined by CARC.

The airplane shall be suitably equipped to perform all the exercises and maneuvers required in the test/check.

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

The accommodation for the theoretical part of the test shall be a suitable location for giving a test lecture to students.

The following books and documents should be available for the briefings and the flight:

- AIP.
- AIC's.
- JCAR-FCL 1 or 2 as applicable.
- Navigation material, charts, computer
- Flight manuals.
- Instructor guides.
- PPL training syllabus.
- Pilot licenses.

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

11.2 Theoretical Knowledge

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

a. Air Law.
b Airplane/helicopter General Knowledge.
c. Flight Performance and Planning.
d. Human Performance and Limitations.
e. Meteorology.
f. Navigation.
g. Operational Procedures.
h. Principles of Flight.
i. Administration.

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

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

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

If the test is used for the issue or revalidation of a FI (ME) or CRI (ME) specific questions relating to asymmetric flight are to be asked.

11.3 The Lecture

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

- The subject of the lecture will be determined by the examiner and preferably chosen from the exercises from AMC JCAR-FCL 1.340/2.340 for FI, AMC JCAR-FCL 1.380/2.380 for CRI and AMC-FCL 1.395/2.395 for IRI or the training syllabus for PPL.

- The applicant will be given at least 24 hours notice of the lecture topic and time to prepare himself for its delivery on the day.

- The lecture should not exceed 45 minutes.

- The examiner, acting as a student, should clearly explain which level he must be considered as a student.

- Applicants must expect to use whatever training aids and equipment are available.

- An airplane/helicopter model, representing the test airplane/helicopter, is essential.

The four basic components of the lecture will be:

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

The lecture should contain:

- A good time frame.
- A structural "build up".
- No untrue statements.
- A theoretical explanation of the practical lesson.
- Explanation of airmanship.
- Mention of common failures of students during exercises.
- Explanation of the corrections on the failures.
- All practical flight details.
- Check questions for the audience.
- Time for the audience to ask questions.

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

- Visual presentation.
- Technical accuracy.
- Clarity of explanation.
- Clarity of speech.
- Instructional techniques.
- Use of models and aids.
- Student participation.

11.4 The Preflight Briefing

An exercise will be chosen by the examiner from the flight syllabus of the FI training course (see AMC JCAR-FCL 1.340/2.340, 1.380/2.380 and 1.395/2.395).

The four basic components of the exercise briefing will be:

a. The Aim.
b. Principles of Flight (briefest reference only).
c. The Air Exercises (what and how and by whom).
d. Airmanship (weather, flight safety etc).

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

The examiner should explain that throughout the flight he, or another FI, will act as the student. The level of experience of this student is to be clearly identified.

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

11.5 The Flight

The flight test following the pre flight briefing should last at least 60 minutes.

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

Before the flight the examiner should clearly identify:

- Which exercises the applicant is to fly without instructional 'patter',
- Which exercises are to be taught to the student, and
- Which exercises may be demonstrated to the student but with accompanying 'patter'.

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

The applicant should:

- Exhibit instructional knowledge of common errors of students in performing exercise.
- Demonstrate and simultaneously explain the flight exercises.
- Analyze and correct simulated common errors.

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

Assessment of the flight will contain:

- Arrangement of Demo.
- Synchronization of Speech with Demo.
- Correction of Faults.
- Airplane Handling.
- Instructional Technique.
- General Airmanship / Safety.
- Positioning, use of Airspace.

11.6 Post Flight Briefing

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

11.7 Flight Test Standards

The applicant's knowledge of check items flown during the flight test are to be assessed against the relevant Flight Test Standards in Module 3 of this FEM.

11.8 Test Tolerances

The Test Tolerances for CPL, shown at Module 5 of this FEM, are to be used for assessment of the FI applicant. However, as the circumstances of each test/check may vary, it is also important that the examiner's assessment takes into account any adverse conditions encountered during the flight.