



**Circulaire**

**CIR/FCL 19**

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**Objet : La qualification IRI (A)**

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Arrêté royal du 4 mars 2008 réglementant les licences civiles de pilote d'avions. Art. 91 et 92

JAR-FCL 1.330, 1.395 & 1.400  
Appendix 1 & 2 to JAR-FCL 1.330 & 1.345  
Appendix 1 to JAR-FCL 1.395  
AMC FCL 1.395  
IEM FCL 1.330

**Betreft : De bevoegdverklaring IRI (A)**

**Ref. :**

Koninklijk besluit van 4 maart 2008 tot regeling van de burgerlijke vergunningen van bestuurder van vliegtuigen. Art. 91 en 92

JAR-FCL 1.330, 1.395 & 1.400  
Appendix 1 & 2 to JAR-FCL 1.330 & 1.345  
Appendix 1 to JAR-FCL 1.395  
AMC FCL 1.395  
IEM FCL 1.330

Le Directeur général a.i.,  
De Directeur-generaal a.i.,

L'édition 4 comprend  
De 4<sup>de</sup> uitgave bevat

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## FCL 19

Cette circulaire décrit la formation, le programme et les procédures qui sont d'application pour l'épreuve d'aptitude en vue de l'obtention de la qualification d'instructeur de vol aux instruments IRI(A).

Elle comprend :

- **JAR-FCL 1.395**
- **AMC FCL 1.395**  
Course IRI(A).
- **Appendix 1 to JAR-FCL 1.330 & 1.345**  
Arrangements for the FI(A) skill test.
- **Appendix 2 to JAR-FCL 1.330 & 1.345**  
(amended)  
Contents of the IRI(A) skill test.
- **Appendix 1 to JAR-FCL 1.395**
- **IEM FCL 1.330** (amended)  
IRI(A) skill test

## FCL 19

Deze circulaire beschrijft de opleiding, het programma en de procedures die van toepassing zijn voor de vaardigheidstest met het oog op het bekomen van de bevoegdverklaring instructeur instrumentvliegen IRI(A).

Zij omvat:

- **JAR-FCL 1.395**
- **AMC FCL 1.395**  
Course IRI(A).
- **Appendix 1 to JAR-FCL 1.330 & 1.345**  
Arrangements for the FI(A) skill test.
- **Appendix 2 to JAR-FCL 1.330 & 1.345**  
(amended)  
Contents of the IRI(A) skill test.
- **Appendix 1 to JAR-FCL 1.395**
- **IEM FCL 1.330** (amended)  
IRI(A) skill test.

**JAR-FCL 1.395 IRI(A) – Requirements**

(See Appendix 1 to JAR-FCL 1.330 & 1.345)

(See Appendix 1 to JAR-FCL 1.395)

(See AMC FCL 1.395)

An applicant for an IRI(A) rating shall have:

- (a) completed at least 800 hours flight time under IFR, of which at least 400 hours shall be in aeroplanes;
- (b) successfully completed at an approved FTO an approved course (see Appendix 1 to JAR-FCL 1.395 and AMC FCL 1.395) comprising theoretical knowledge instruction and at least ten hours of flight instruction on an aeroplane, flight simulator or FNPT II; and
- (c) passed a skill test as set out in Appendices 1 and 2 to JAR-FCL 1.330 & 1.345.

**AMC FCL 1.395**

**Course for the instrument rating instructor rating (aeroplane) (IRI(A))**

**See JAR-FCL 1.395**

**See Appendix 1 to JAR-FCL 1.395**

COURSE OBJECTIVE

1 The IRI(A) course should give particular stress to the role of the individual in relation to the importance of human factors in the man-machine environment. Special attention should be paid to the applicant's levels of maturity and judgement including an understanding of adults, their behavioural attitudes and variable levels of education.

2 With the exception of the section on Teaching and Learning, all the subject detail contained in the theoretical and Flight Training Syllabus is complementary to the Instrument Rating Pilot Course Syllabus which should already be known by the applicant. Therefore the objective of the course is to:

- a. refresh and bring up to date the technical knowledge of the student instructor;
- b. train pilots in accordance with the requirements of the modular instrument flying training course (Appendix 1 to JAR-FCL 1.210);
- c. enable the applicant to develop the necessary instructional techniques required for teaching of instrument flying, radio navigation and instrument procedures to the level required for the issue of an instrument rating; and
- d. ensure that the student instrument rating instructor's flying is of a sufficiently high standard.

3 During the course, the applicants should be made aware of their own attitudes to the important aspect of flight safety. Improving safety awareness should be a fundamental objective throughout the course. It will be of major importance for the course of training to aim at giving applicants the knowledge, skills and attitudes relevant to an instructor's task and to achieve this, the course curriculum, in terms of objectives should comprise at least the following areas.

## PART 1

### TEACHING AND LEARNING

Item No.

1 THE LEARNING PROCESS

Motivation  
Perception and understanding  
Memory and its application  
Habits and transfer  
Obstacles to learning  
Incentives to learning  
Learning methods  
Rates of learning

2 THE TEACHING PROCESS

Elements of effective teaching  
Planning of instructional activity  
Teaching methods  
Teaching from the 'known' to the 'unknown'  
Use of 'lesson plans'

3 TRAINING PHILOSOPHIES

Value of a structured (approved) course of training  
Importance of a planned syllabus  
Integration of theoretical knowledge and flight instruction

4 TECHNIQUES OF APPLIED INSTRUCTION

- a. Theoretical knowledge – Classroom instruction techniques  
Use of training aids  
Group lectures  
Individual briefings  
Student participation/discussion
- b. FLIGHT – Airborne instruction techniques  
The flight/cockpit environment  
Techniques of applied instruction  
Post-flight and inflight judgement and decision making

5 STUDENT EVALUATION AND TESTING

- a. Assessment of student performance
- The function of progress tests  
Recall of knowledge  
Translation of knowledge into understanding  
Development of understanding into actions  
The need to evaluate rate of progress

b. Analysis of student errors

- Establish the reason for errors
- Tackle major faults first, minor faults second
- Avoidance of over criticism
- The need for clear concise communication

6 TRAINING PROGRAMME DEVELOPMENT

- Lesson planning
- Preparation
- Explanation and demonstration
- Student participation and practice
- Evaluation

7 HUMAN PERFORMANCE AND LIMITATIONS RELEVANT TO FLIGHT INSTRUCTION

- Physiological factors
- Psychological factors
- Human information processing
- Behavioural attitudes
- Development of judgement and decision making

8 HAZARDS INVOLVED IN SIMULATING SYSTEMS FAILURES AND MALFUNCTIONS IN THE AEROPLANE DURING FLIGHT

- Selection of a safe altitude
- Importance of 'touch drills'
- Situational awareness
- Adherence to correct procedures

9 TRAINING ADMINISTRATION

- Flight theoretical knowledge instruction records
- Pilot's personal flying log book
- The flight/ground curriculum
- Study material
- Official forms
- Aircraft Flight/Owner's Manuals/Pilot's Operating Handbooks
- Flight authorisation papers
- Aircraft documents
- The private pilot's licence regulations

NOTE: A suggested breakdown of hours for this part is found in the Flight Instructor Course, AMC FCL 1.340.

## PART 2

### THEORETICAL KNOWLEDGE INSTRUCTION SYLLABUS

The theoretical subjects covered below should be used to develop the instructor's teaching skills. The items selected should relate to the student's background and should be applied to training for an IR(A).

#### GENERAL SUBJECTS

#### PHYSIOLOGICAL/PSYCHOLOGICAL FACTORS

The Senses  
Spatial Disorientation  
Sensory Illusions  
Stress

#### FLIGHT INSTRUMENTS

Airspeed Indicator  
Altimeter  
Vertical Speed Indicator  
Attitude Indicator  
Heading Indicator  
Turn and Slip Indicator  
Magnetic Compass

In relation to the above instruments the following items should be covered:

Principles of Operation  
Errors and in-flight Serviceability Checks  
System Failures

#### RADIO NAVIGATION AIDS

Basic Radio Principles  
Use of VHF RTF Channels  
The Morse Code  
Basic Principles of Radio Aids  
VHF Omni Range (VOR)  
Ground and Aeroplane Equipment  
Non Directional Beacons (NDB/ADF)  
Ground and Aeroplane Equipment  
VHF Direction Finding (VHF/DF)  
Radio Detection and Ranging (RADAR)  
Ground Equipment  
Primary Radar  
Secondary Surveillance Radar  
Aeroplane Equipment  
Transponders  
Precision Approach System  
Other Navigational Systems (as applicable) in current Operational use  
Ground and Aeroplane Equipment  
Distance Measuring Equipment (DME)  
Ground and Aeroplane Equipment

Marker Beacons  
Ground and Aeroplane Equipment  
Pre-flight Serviceability Checks  
Range, Accuracy and Limitations of Equipment

## FLIGHT PLANNING CONSIDERATIONS

### AERONAUTICAL INFORMATION PUBLICATIONS

The course of training should cover the items listed below, but the applicant's aptitude and previous aviation experience should be taken into account when determining the amount of instructional time allotted.

Although a number of items contained under this heading are complementary to those contained in the PPL/CPL/IR syllabi, the instructor should ensure that they have been covered during the applicant's training and due allowance should be made for the time needed to revise these items as necessary.

The Aeronautical Information Publication  
NOTAM Class 1 and 2  
Aeronautical Information Circulars  
Information of an Operational Nature

The Rules of the Air and Air Traffic Services (RAC)  
Visual Flight Rules and Instrument Flight Rules  
Flight Plans and ATS Messages  
Use of Radar in Air Traffic Services  
Radio Failure

Classification of Airspace  
Airspace Restrictions and Hazards

Holding and Approach to Land Procedures  
Precision Approaches/Non Precision Approaches  
Radar Approach Procedures  
Missed Approach Procedures  
Visual Manoeuvring after an Instrument Approach  
Conflict Hazards in Uncontrolled Airspace

Communications  
Types of Services  
Extraction of AIP Data Relating to Radio Aids

Charts Available  
En-route  
Departure and Arrival  
Instrument Approach and Landing  
Amendments, Corrections and Revision Service

## FLIGHT PLANNING GENERAL

The Objectives of Flight Planning  
Factors Affecting Aeroplane and Engine Performance

Selection of Alternate(s)  
Obtaining Meteorological Information  
Services Available  
Met Briefing  
Telephone or Electronic Data Processing  
Actual Weather Reports (TAFs, METARs and SIGMET Messages)  
The Route Forecast  
The Operational Significance of the Meteorological Information Obtained (including Icing, Turbulence and Visibility)  
Altimeter Considerations  
Definitions of  
Transition Altitude  
Transition Level  
Flight Level  
QNH  
Regional QNH  
Standard Pressure Setting  
QFE  
Altimeter Setting Procedures  
Pre-flight Altimeter Checks  
Take off and Climb  
En-Route  
Approach and Landing  
Missed Approach  
Terrain Clearance  
Selection of a Minimum Safe En-Route Altitude  
Instrument Flight Rules  
Preparation of Charts  
Choice of Routes and Flight Levels  
Compilation of Flight Plan/Log Sheet  
Log Sheet Entries  
Navigation Ground Aids to be used  
Frequencies/Identification  
Radials and Bearings  
Tracks and Fixes  
Safety Altitude(s)  
Fuel Calculations  
ATC Frequencies (VHF)  
Tower, Approach, En-Route, Radar, FIS, ATIS, and Weather Reports  
Minimum Sector Altitudes at Destination and Alternate Aerodromes  
Determination of Minimum Safe Descent Heights/Altitudes (Decision Heights) at Destination and Alternate Aerodromes

#### THE PRIVILEGES OF THE INSTRUMENT RATING

Outside Controlled Airspace  
Within Controlled Airspace

Period of Validity and Renewal Procedures

## **PART 3**

### **FLIGHT TRAINING SYLLABUS**

#### **LONG BRIEFINGS AND AIR EXERCISES**

- 1 Instrument Flying (For revision as deemed necessary by the Course Instructor)
- 2 Instrument Flying (Advanced)
- 3 Radio Navigation (Applied Procedures) – use of VOR
- 4 Radio Navigation (Applied Procedures) – use of NDB
- 5 Radio Navigation (Applied Procedures) – use of VHF/DF
- 6 Radio Navigation (Applied Procedures) – use of DME
- 7 Radio Navigation (Applied Procedures) – use of Transponders
- 8 Radio Navigation (Applied Procedures) – use of En-Route Radar Services
- 9 Pre-flight and Aerodrome Departure and Arrival Procedures
- 10 Instrument Approach – ILS Approaches to Specified Minima – Missed Approach Procedures
- 11 Instrument Approach – NDB Approaches to Specified Minima – Missed Approach Procedures
- 12 Radio Navigation (applied procedures) use of GPS (to be developed)

#### **LONG BRIEFING 1**

##### **INSTRUMENT FLYING (Basic)**

Flight Instruments

Physiological Considerations

Instrument Appreciation

Attitude Instrument Flight

Pitch Indications

Bank Indications

Different Instrument Presentations

Introduction to the Use of the Attitude Indicator

Pitch Attitude

Bank Attitude

Maintenance of Heading and Balanced flight

Instrument Limitations (inc. System Failures)

##### **ATTITUDE, POWER & PERFORMANCE**

Attitude Instrument Flight

Control Instruments

Performance Instruments

Effect of Changing Power and configuration

Cross Checking the Instrument Indications

Instrument Interpretation

Direct and Indirect Indications (Performance Instruments)

Instrument Lag

Selective Radial Scan

## THE BASIC FLIGHT MANOEUVRES (FULL PANEL)

Straight and Level Flight at Various Airspeeds and Aeroplane Configurations

Climbing

Descending

Standard Rate Turns

Level, Climbing and Descending On to Pre-Selected Headings

## AIR EXERCISE 1

### INSTRUMENT FLYING (Basic)

Physiological Sensations

Instrument Appreciation

Attitude Instrument Flight

Pitch Attitude

Bank Attitude

Maintenance of Heading and Balanced Flight

Attitude Instrument Flight

Effect of Changing Power and configuration

Cross Checking the Instruments

Selective Radial Scan

## THE BASIC FLIGHT MANOEUVRES (FULL PANEL)

Straight and Level Flight at various Airspeeds and Aeroplane Configurations

Climbing

Descending

Standard Rate Turns

Level, Climbing and Descending on to Pre-Selected Headings

## **LONG BRIEFING 2**

### INSTRUMENT FLYING (Advanced)

Full Panel

30° Level Turns

Unusual Attitudes – Recoveries

Transference to Instruments after Take-off

Limited Panel

Basic Flight Manoeuvres

Unusual Attitudes – Recoveries

## AIR EXERCISE 2

Full Panel

30° Level Turns

Unusual Attitudes – Recoveries

Limited Panel

Repeat of the Above Exercises

### **LONG BRIEFING 3**

#### **RADIO NAVIGATION (APPLIED PROCEDURES)**

##### **USE OF VOR (VHF OMNI RANGE)**

Availability of VOR Stations En-Route  
Station Frequencies and Identification  
Signal Reception Range  
Effect of Altitude  
VOR Radials  
Use of Omni Bearing Selector  
To/From Indicator  
Orientation  
Selecting Radials  
Intercepting a Pre-Selected Radial  
Assessment of Distance to Interception  
Effects of Wind  
Maintaining a Radial  
Tracking To/From a VOR Station  
Procedure Turns  
Station Passage  
Use of Two Stations for Obtaining a Fix  
Pre-Selecting Fixes Along a Track  
Assessment of Ground Speed and Timing  
Holding Procedures  
Various Entries  
Communication (R/T Procedures and ATC Liaison)

##### **AIR EXERCISE 3**

#### **RADIO NAVIGATION (APPLIED PROCEDURES)**

##### **USE OF VOR (VHF OMNI RANGE)**

Station Selection and Identification  
Orientation  
Intercepting a Pre-Selected Radial  
R/T Procedures and ATC Liaison  
Maintaining a Radial Inbound  
Recognition of Station Passage  
Maintaining a Radial Outbound  
Procedure Turns  
Use of Two Stations to Obtain a Fix Along the Track  
Assessment of Ground Speed and Timing  
  
Holding Procedures/Entries  
Holding at a Pre-Selected Fix  
Holding at a VOR Station

## **LONG BRIEFING 4**

### **RADIO NAVIGATION (APPLIED PROCEDURES)**

#### **USE OF ADF (AUTOMATIC DIRECTION FINDING EQUIPMENT)**

Availability of NDB (Non Directional Beacons) Facilities En-Route  
Location, Frequencies, Tuning (as applicable) and Identification Codes  
Signal Reception Range  
Static Interference  
Night Effect  
Station Interference  
Mountain Effect  
Coastal Refraction  
Orientation in Relation to a NDB  
Homing  
Intercepting a Pre-Selected Magnetic Bearing and Tracking Inbound  
Station Passage  
Tracking Outbound  
Time/Distance Checks  
Use of Two NDBs to Obtain a Fix or alternatively use of One NDB and One other Navaid  
Holding Procedures/Various Approved Entries  
Communication (R/T Procedures and ATC Liaison)

## **AIR EXERCISE 4**

### **RADIO NAVIGATION (APPLIED PROCEDURES)**

#### **USE OF ADF (AUTOMATIC DIRECTION FINDING EQUIPMENT)**

Selecting, Tuning and Identifying a NDB  
ADF Orientation  
Communication (R/T Procedures and ATC Liaison)  
Homing  
Tracking Inbound  
Station Passage  
Tracking Outbound  
Time/Distance Checks  
Intercepting a Pre-Selected Magnetic Bearing  
Determining the Aeroplane's position from Two NDBs or alternatively from One NDB and One Other Navaid  
ADF Holding Procedures/Various Approved Entries

## **LONG BRIEFING 5**

### **RADIO NAVIGATION (APPLIED PROCEDURES)**

#### **USE OF VHF/DF (Very High Frequency/Direction Finding)**

Availability of VHF/DF Facilities En-Route  
Location, Frequencies, Station Call Signs and Hours of Operation

Signal and Reception Range  
Effect of Altitude  
Communication (R/T Procedures and ATC Liaison)  
Obtaining and Using Types of Bearings, e.g. QTE, QDM, QDR  
Homing to a Station  
Effect of Wind  
Use of Two VHF/DF Stations to Obtain a Fix (or alternatively One VHF/DF Station and One other Navaid)  
Assessment of Groundspeed and Timing

#### AIR EXERCISE 5

##### RADIO NAVIGATION (APPLIED PROCEDURES)

##### USE OF VHF/DF (Very High Frequency/Direction Finding)

Establishing Contact with a VHF/DF Station  
R/T Procedures and ATC Liaison  
Obtaining and Using a QDR and QTE  
Homing to a Station  
Effect of Wind  
Use of Two VHF/DF Stations to Obtain a Fix (or alternatively One VHF/DF Station and One other Navaid)  
Assessment of Groundspeed and Timing

#### LONG BRIEFING 6

##### USE OF DME (Distance Measuring Equipment)

Availability of DME Facilities  
Location, Frequencies and Identification Codes  
Signal Reception Range  
Slant Range  
Use of DME to obtain Distance, Groundspeed and Timing  
Use of DME to obtain a Fix

#### AIR EXERCISE 6

##### USE OF DME (Distance Measuring Equipment)

Station Selection and Identification  
Use of Equipment Functions  
Distance  
Groundspeed  
Timing  
DME Arc Approach  
DME Holding

## **LONG BRIEFING 7**

### USE OF TRANSPONDERS (SSR)

Operation of Transponders  
Code Selection Procedure  
Emergency Codes  
Precautions when using Airborne Equipment

### AIR EXERCISE 7

#### USE OF TRANSPONDERS (SSR)

Operation of Transponders  
  
Types of Transponders  
Code Selection Procedure  
Emergency Codes  
Precautions when Selecting the Required Code

## **LONG BRIEFING 8**

### USE OF EN-ROUTE RADAR

Availability of Radar Services  
Location, Station Frequencies, Call Signs and Hours of Operation  
AIP and NOTAMs  
Provision of Service  
Communication (R/T, Procedures and ATC Liaison)  
Airspace Radar Advisory Service  
Emergency Service  
Aircraft Separation Standards

### AIR EXERCISE 8

#### USE OF EN-ROUTE RADAR

Communication (R/T Procedures and ATC Liaison)  
Establishing the Service Required and Position Reporting  
Method of Reporting Conflicting Traffic  
Terrain Clearance

## **LONG BRIEFING 9**

### PRE-FLIGHT AND AERODROME DEPARTURE

Determining the Serviceability of the Aeroplane Radio  
Navigation Equipment  
Obtaining the Departure Clearance  
Setting up Radio Nav aids prior to Take-off e.g. VOR Frequencies, Required Radials, etc.  
Aerodrome Departure Procedures, Frequency Changes  
Altitude and Position Reporting as Required  
Standard Instrument Departure Procedures (SIDs)  
Obstacle Clearance Considerations

## AIR EXERCISE 9

### PRE-FLIGHT AND AERODROME DEPARTURE

Radio Equipment Serviceability Checks  
Departure Clearance  
Navaid Selection  
Frequencies, Radials, etc.  
Aerodrome Departure Checks, Frequency Changes, Altitude and Position Reports  
Standard Instrument Departure Procedures (SIDs)

## LONG BRIEFING 10

### INITIAL/INTERMEDIATE/FINAL APPROACH PROCEDURES

Precision Approach Charts  
Approach to the Initial Approach Fix and Minimum Sector Altitude  
Navaid Requirements, e.g. Radar, ADF, etc.  
Communication (ATC Liaison and R/T Phraseology)

#### Review:

Holding Procedure  
The Final Approach Track  
Forming a Mental Picture of the Approach  
Completion of Aerodrome Approach Checks  
Initial Approach Procedure  
Selection of the ILS Frequency and Identification  
Obstacle Clearance Altitude/Height  
Operating Minima  
Achieving the Horizontal and Vertical Patterns  
Assessment of Distance, Groundspeed Time, and Rate of Descent from the Final Approach Fix to the Aerodrome  
Use of DME (as applicable)  
Go Around and Missed Approach Procedure  
Review of the Published Instructions  
Transition from Instrument to Visual Flight (Sensory Illusions)

### VISUAL MANOEUVRING AFTER AN INSTRUMENT APPROACH

Circling Approach  
Visual Approach to Landing

## AIR EXERCISE 10

### PRECISION APPROACH PROCEDURE

Initial Approach to the ILS  
Completion of Approach Planning  
Holding Procedure  
Frequency Selection and Identification of ILS  
Review of the Published Procedure and Minimum Sector Altitude  
Communication (ATC Liaison and R/T Phraseology)  
Determination of Operating Minima and Altimeter Setting  
Weather Consideration, e.g. Cloud Base and Visibility  
Availability of Runway Lighting  
ILS Entry Methods

Radar Vectors  
Procedural Method  
Assessment of Approach Time from the Final Approach Fix to the Aerodrome

Determination of:  
The Descent Rate on Final Approach  
The Wind Velocity at the Surface and the Length of the Landing Runway  
The Obstruction Heights to be borne in mind during Visual manoeuvring after an Instrument Approach  
Circling approach

The Approach:  
At the Final Approach Fix  
Use of DME (as applicable)  
ATC liaison  
Note Time and establish Airspeed and Descent Rate  
Maintaining the Localiser and Glide Path  
Anticipation in Change of Wind Velocity and its Effect on Drift  
Decision Height  
Runway Direction  
Overshoot and Missed Approach Procedure  
Transition from Instrument to Visual Flight  
Circling Approach  
Visual Approach to Landing

## **LONG BRIEFING 11**

### **NON-PRECISION APPROACH PROCEDURE**

Non-Precision Approach Charts  
Initial Approach to the Initial Approach Fix and Minimum Sector Altitude  
ATC Liaison  
Communication (ATC Procedures and R/T Phraseology)

Approach Planning:  
Holding Procedure  
The Approach Track  
Forming a Mental Picture of the Approach  
Initial Approach Procedure  
Operating Minima  
Completion of Approach Planning  
Achieving the Horizontal and Vertical Patterns  
Assessment of Distance, Groundspeed Time, and Rate of Descent from the Final Approach Fix (FAF) to the Aerodrome  
Use of DME (as applicable)  
Go around and Missed Approach Procedure  
Review of the Published Instructions  
Transition from Instrument to Visual Flight (Sensory Illusions)  
Visual Manoeuvring after an Instrument Approach  
Circling Approach  
Visual Approach to Landing

## AIR EXERCISE 11

### NON-PRECISION APPROACH PROCEDURE

Completion of Approach Planning including

Determination of:

Descent Rate from the Final Approach Fix

The Wind Velocity at the Surface and Length of the Landing Runway

The Obstruction Heights to be Borne in Mind During Visual Manoeuvring after an Instrument Approach

Circling Approach

Go Around and Missed Approach Procedure

Initial Approach

Frequency Selection and Identification

Review of the Published Procedure and Minimum Safe Sector Altitude

ATC liaison and R/T Phraseology

Determination of Decision Height and Altimeter Setting

Weather Considerations, e.g. Cloud Base and Visibility

Availability of Runway Lighting

Determination of Inbound Track

Assessment of Time from Final Approach Fix to the Missed Approach Point

ATC Liaison

The Outbound Procedure (incl. Completion of Pre-Landing Checks)

The Inbound Procedure

Re-Check of Identification Code

Altimeter Setting Re-Checked

The Final Approach

Note Time and Establish Airspeed and Descent Rate

Maintaining the Final Approach Track

Anticipation of Change in Wind Velocity and its Effect on the Drift

Minimum Descent Altitude/Height

Runway Direction

Go around and Missed Approach Procedure

Transition from Instrument to Visual Flight (Sensory Illusions)

Visual Approach

### **LONG BRIEFING 12**

#### AIR EXERCISES

Use of GPS.

## **Appendix 1 to JAR–FCL 1.330 & 1.345**

### **Arrangements for the flight instructor rating (FI(A)) skill test, proficiency check and oral theoretical knowledge examination**

(See JAR–FCL 1.330, 1.345, 1.355, 1.380, 1.385 and 1.395)

1 The skill test for a FI(A) rating is set out in Appendix 2 to JAR–FCL 1.330 & 1.345. The test comprises oral theoretical examinations on the ground, pre-flight and post flight briefings and in-flight FI(A) demonstrations during skill tests in an aeroplane.

2 An applicant for the skill test shall have received instruction on the same type or class of aeroplane used for the test. The aeroplane used for the test shall meet the requirements set out in Appendix 1a to JAR–FCL 1.055, paragraph 25. (see circular FCL 2 – FTO)

3 Before taking the skill test an applicant shall have completed the required training. The FTO shall produce the applicant's training records when required by the examiner.

4 Section 1, the oral theoretical knowledge examination part of the skill test, is sub-divided into two parts:

(a) the applicant is required to give a lecture under test conditions to other 'student(s)', one of whom will be the examiner. The test lecture is to be selected from items a–h of Section 1. The amount of time for preparation of the test lecture shall be agreed beforehand with the examiner. Appropriate literature may be used by the applicant. The test lecture should not exceed 45 minutes.

(b) the applicant is tested orally by an examiner for knowledge of items a–i of Section 1 and the 'teaching and learning' content given in the FI(A) courses.

5 Section 2, 3 and 7 are for a FI(A) rating for single engine (SE) single pilot aeroplanes (SPAs). These sections comprise exercises to demonstrate the ability to be a FI(A) (ie. instructor demonstration exercises) chosen by the examiner from the flight syllabus of the FI(A) training courses (see AMC FCL 1.340, 1.380 and 1.395). The applicant will be required to demonstrate FI(A) abilities, including briefing, flight instruction and de-briefing.

6 Section 4 is intentionally blank and may be used for the inclusion of other FI(A) demonstration exercises, as decided by the examiner and acknowledged by the applicant before the skill test.

7 Section 5 comprises additional instructor demonstration exercises for a FI(A) rating for multi-engine (ME) SPAs. This section, if required, shall use a ME SPA, simulator or FNPT II. If a simulator or FNPT is used, this shall simulate a ME aeroplane. This section shall be completed in addition to Section 2, 3 and 4 (if applicable) and 7.

8 Section 6 is intentionally blank. This part will include additional FI(A) rating demonstration exercises, as decided by the examiner and agreed with the applicant before the skill test, for a FI(A) rating for instrument ratings (IR). These exercises will be related to the training requirements for the initial issue of an IR.

9 During the skill test the applicant shall occupy the seat normally occupied by the FI(A). The examiner or another FI(A) shall function as the 'student'. The applicant shall be required to explain the relevant exercises and to demonstrate their conduct to the 'student', where appropriate. Thereafter, the 'student' shall execute the same manoeuvre including typical mistakes of inexperienced students. The applicant is expected to correct mistakes orally and/or, if necessary, by intervening.

10 Section 1 and 2 through 7 (as relevant) shall be completed within a period of six months but all Sections should, wherever possible, be completed on the same day. Failure in any exercise within Sections 2, 3 and 4 (if applicable) and 5/6 (if relevant) requires a re-test covering all exercises. Section 1, if failed, may be retaken separately.

11 The examiner may terminate the test at any stage if it is considered that the applicant's demonstration of flying or instructional skills require a re-test.

12 The examiner shall be the pilot-in-command, except in circumstances agreed by the examiner when another FI(A) is designated as pilot-in-command for the flight. Responsibility for the flight shall be allocated in accordance with national regulations.

13 The skill test contents and sections set out in Appendix 2 to JAR–FCL 1.330 & 1.345 shall be used for the skill test. The applicant for the test will use the application form as set out in IEM FCL 1.330.

**Appendix 2 to JAR-FCL 1.330 & 1.345 (amended for IRI(A))**

**Contents of the IRI(A) skill test, oral theoretical knowledge examination and proficiency check**

<b>SECTION 1 THEORETICAL KNOWLEDGE ORAL</b>	
a	Air law
b	Aircraft General Knowledge
c	Flight Performance and Planning
d	Human Performance and Limitations
e	Meteorology
f	Navigation
g	Operational Procedures
h	Principles of Flight
i	Training Administration

**SECTIONS 2 AND 3 SELECTED MAIN EXERCISE:**

<b>SECTION 2 PRE-FLIGHT BRIEFING</b>	
a	Visual Presentation
b	Technical Accuracy
c	Clarity of Explanation
d	Clarity of Speech
e	Instructional Technique
f	Use of Models and Aids
g	Student Participation

<b>SECTION 3 FLIGHT</b>	
a	Arrangement of Demo
b	Synchronisation of Speech with Demo
c	Correction of Faults
d	Aeroplane Handling
e	Instructional Technique
f	General Airmanship/Safety
g	Positioning, use of Airspace
<b>SECTION 4 OTHER EXERCISES</b>	
a	
b	
c	
d	
e	
f	
g	
<b>SECTION 5 MULTI-ENGINE EXERCISES</b>	
a	<sup>1</sup> Actions following an Engine failure shortly after take-off
b	<sup>1</sup> A single-engine approach and go around
c	<sup>1</sup> A single-engine approach and landing
d	
e	
f	
g	

<sup>1</sup> These exercises shall be demonstrated at the skill test for the single-pilot multi-engine class rating instructor rating.

<b>SECTION 6 INSTRUMENT EXERCISES</b>	
a	
b	
c	
d	
e	
f	
g	
<b>SECTION 7 POSTFLIGHT DE-BRIEFING</b>	
a	Visual Presentation
b	Technical Accuracy
c	Clarity of Explanation
d	Clarity of Speech
e	Instructional Technique
f	Use of Models and Aids
g	Student Participation

## **Appendix 1 to JAR FCL 1.395**

### **Course for the instrument rating instructor rating (Aeroplane) (IRI(A))**

**See JAR-FCL 1.395**

**See AMC FCL 1.395**

1 The aim of this course is to train aeroplane licence holders to the level of proficiency necessary for the issue of an IRI(A) rating. The course shall be designed to give the applicant adequate training in ground and flying instructional techniques based upon established teaching methods.

#### TEACHING AND LEARNING

2 Syllabus is set out in AMC FCL 1.395. An approved IRI(A) Teaching and Learning course shall comprise not less than 25 hours. Pilots holding or having held one of the following ratings are credited for the IRI(A) Teaching and Learning part of the IRI course:

FI(A), CRI(A), TRI(A), SFI(A)

FI(H), TRI(H),SFI(H)

Pilots holding a IRI(H) who meet the requirements set out in JAR-FCL 1.395(a) are credited of the course except for the "Long Briefing 2", "Air Exercise 2" and Skill Test.

#### FLIGHT TRAINING

3 An approved IRI(A) course shall comprise not less than 10 hours or 5 hours in the case of a FI(A) of flight training on an aeroplane, flight simulator or FPNT II.

#### SKILL TEST

4 On completion of the course, the applicant shall take the skill test in accordance with Appendices 1 and 2 to JAR FCL 1.330 & 1.345.

**IEM FCL 1.330 (amended for IRI(A))  
IRI(A) skill test and proficiency check form**

**APPLICATION AND REPORT FORM FOR THE IRI(A) SKILL TEST**

<b>1</b>	<b>Applicants personal particulars:</b>		
Applicant's last name:		First names:	
Date of Birth:		Tel (Home):	Tel (Work):
Address:		Country:	

<b>2</b>	<b>Licence Details</b>		
Licence type:		Number:	
Class ratings included in the licence:		Exp. Date:	
Type ratings included in the licence:	1.		
	2.		
	3.		
	4.		
	5.		
Other ratings included in the licence:	1.		
	2.		
	3.		
	4.		
	5.		

<b>3</b>	<b>Pre-course flying experience (See JAR-FCL 1.335)</b>			
TOTAL FLYING HOURS	PIC hours	SINGLE-ENGINE (PISTON) preceding 6 months	INSTRUMENT FLIGHT INSTRUCTION	CROSS-COUNTRY hours

*CPL THEORETICAL EXAMINATION PASSED .....(date) (For PPL holders only)  
(Copy of pass shall be submitted with this form)*

<b>4</b>	<b>Pre-entry flight test (See JAR–FCL 1.335(f))</b>
<i>I recommend .....for the Flight Instructor Course.</i>	
Name of FTO:	Date of flight test:
Name of FI conducting the test (Block capitals):	
Licence number:	
Signature:	

<b>5</b>	<b>Declaration by the applicant</b>				
<i>I have received a course of training in accordance with the syllabus approved by the Authority for the: (Tick as applicable)</i>					
Flight Instructor Rating FI(A)		Instrument Rating Instructor Rating (IRI(A))		Class Rating Instructor Rating for multi- engine SPA – (CRI(A) ME SPA)	
Applicant's name: (Block Letters)			Signature:		

<b>6</b>	<b>Declaration by the chief flight instructor</b>				
<i>I certify that ..... has satisfactorily completed an approved course of training for the</i>					
Flight Instructor Rating FI(A)		Instrument Rating Instructor Rating (IRI(A))		Class Rating Instructor Rating for multi- engine SPA – (CRI(A) ME SPA)	
<i>in accordance with the relevant syllabus approved by the Authority.</i>					
Flying hours during the course:					
Aeroplane/s, simulator/s or flight and navigation procedure trainers used :					
Name of CFI:					
Signature:					
Name of FTO:					

7	<b>Flight instructor examiner's certificate</b>		
<i>I have tested the applicant according to the examination report</i>			
<b>A – FLIGHT INSTRUCTOR EXAMINER'S ASSESSMENT in case of partial pass:</b>			
Theoretical oral examination:		Skill test:	
<i>Passed</i>	<i>Failed</i>	<i>Passed</i>	<i>Failed</i>
	I recommend further flight/ground training with a FI instructor before re-test		
	I do not consider further flight/theoretical instruction necessary before re-test		
<i>Tick as applicable</i>			
<b>B – FLIGHT INSTRUCTOR EXAMINER'S ASSESSMENT:</b>			
	Flight Instructor rating		
	Instrument Instructor rating		
	Class Rating Instructor Rating for multi-engine SPA		
<i>Tick as applicable</i>			
FIE's name (block letters):			
Signature:			
Licence number:		Date:	