

Flight Instructor Course Handbook

Volume 4: The Instrument Instructor & IRI Courses



A Study Guide by Steve Pells

Optimised for iPad

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Flight Instructor Course Handbook

The following volumes are available:

Volume 1: FI Course

Volume 2: Single Engine CRI Course

Volume 3: Multi Engine CRI Course

Volume 4: Instrument Instructor & IRI Course

Volume 5: Night Instructor Course

Volume 6: FIC Preparation Course

Volume 7: MCCI Course

Volume 8: Aerobatics Instructor Course

Volume 9: CPL Instructor Guidance

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Contents

Abbreviations

Introduction

Overview

Part 1: Instructor Certificates

Instructor Certificates

The Stand-Alone Instrument Rating Instructor (IRI) Certificate

The 'Add-On' Instrument Rating Instructor Certificate

Part 2: Instructor Courses

The Instrument Rating Instructor (IRI) Course

Part 4: Student Ratings & Courses

The Instrument Rating (IR)

Modular Instrument Rating

Competency Based Instrument Rating (CB-IR)

Instrument Rating (Aeroplane) Skill Test

The UK IMC Rating (IRR) & Course

Part 5: Appendices

Appendix 1: Instructional Techniques

Appendix 2: Long Briefings

Appendix 3 Pre-Flight Briefings (Short Briefs)

Appendix 4: FIC Groundschool

Appendix 5: Flight Training

Appendix 6a: Trainee needs

Appendix 6b: Instructor Competencies

Appendix 7: CAA Forms & Documents

Appendix 10: Typical Instructor Assessments of Competence

Abbreviations

(A)	Aeroplane	IFR	Instrument flight rules	SE	Single-engine or Senior Examiner
ACA	Asymmetric committal altitude	IMCR	UK IMC Rating	SEP	Single-engine piston
ACH	Asymmetric committal height	IMC	Instrument meteorological conditions	SFI	Synthetic flight instructor
AFM	Aeroplane flight manual	IR	Instrument rating	STI	Synthetic training instructor
AoC	Assessment of competence	IRE	Instrument rating examiner	SPA	Single pilot aeroplane
ATO	Approved training organisation	IRI	Instrument rating instructor	SPIC	Student pilot in command
CCC	Course completion certificate	IRR	IR renewal & revalidation examiner	SSEA	Simple single-engine aeroplane
CFI	Chief flying instructor	IR(R)	Instrument rating (Restricted)	SSR	Standard stall recovery
CPL	Commercial pilot's licence	LAPL	Light aircraft pilot's licence	TEM	Threat & error management
CRE	Class rating examiner	MCCI	Multi crew co-operation instructor	TK	Theoretical knowledge
CRI	Class rating instructor	ME	Multi-engine	TMG	Touring motor glider
CRM	Crew resource management	MEP	Multi-engine piston	TOC	Top of climb
CSU	Constant speed unit	MI	Mountain rating instructor	TOD	Top of descent
DTO	Designated training organisation	MP	Multi-pilot or Manifold pressure	TRI	Type rating instructor
EASA	European Union Aviation Safety Agency	MPL	Multi pilot licence	Ts & Ps	Temperatures and pressures
EFATO	Engine failure after take-off	Nm	Nautical mile	VAT	Threshold speed
FCL	Flight crew licencing	NPPL	UK national private pilot's licence	VFR	Visual flight rules
FE	Flight examiner	OEI	One engine inoperative	VMC	Visual meteorological conditions
FFS	Full flight simulator	P1	Pilot in command	Vmc	Minimum control speed
FI	Flight instructor	P1/s	Pilot in command under supervision	Vmca	Minimum control speed in the air
FI (R)	Restricted Flight instructor	PIC	Pilot in command	VP	Variable pitch
FIC	Flight instructor course	PICUS	Pilot in command under supervision	Vr	Rotate Speed
FICI	Flight instructor course instructor	PoH	Pilot's operating handbook	VREF	Final approach reference speed
FIE	Flight instructor examiner	PPL	Private pilot's licence	VS	Vertical speed
FNPT	Flight navigation procedures trainer	PuT	Pilot under training	Vs1	Stall speed in a specific configuration
FT	Follow through	QXC	Qualifying cross country (defunct)	Vs0	Stall speed in landing configuration
FTI	Flight test instructor	ROC	Rate of climb	Vtoss	Take of safety speed
G/A	Go-around	ROD	Rate of descent	Vx	Best angle of climb speed
(H)	Helicopter	RTO	Rejected take-off	Vxse	Best angle of climb speed single engine
HDG	Heading	RW R/W	Runway	Vy	Best rate of climb speed
HoT	Head of Training	S&L	Straight and level	Vyse	Best rate of climb speed single engine

Introduction

This document is designed to assist the trainee Instructor through his/her journey from qualified and proficient pilot, to an instructor (FI, CRI or IRI). It is also a useful study document for the FI(A) studying to become an FIC instructor.

It contains lots of background information and suggested briefs and Air Exercises. It is by no means the only way of achieving the qualification.

In this document, for ease of writing, the generic student is referred to as 'he'. This is not meant to imply that women cannot be taught to fly! It is just a recognition that by far the majority of flying students are male. In this document, the word 'he' should be taken to mean any student pilot (or instructor or examiner) of any gender, or no gender, or gender-fluid.

Overview

The path from pilot to instructor is a journey. Long, and at times arduous, but worth the effort. Usually, before embarking on a journey, it is customary to know a bit about the destination.



In our case, the destination is an instructor certificate, either FI(h) or IRI. Before getting there it is worth knowing a bit about what it is we are aiming for.

What follows is a discussion about the various types of instructor certificate and the courses to which they relate.

Throughout this document, the terms **IMC Rating** and **IR(R)** are used interchangeably except with respect to its inclusion on a Part-FCL licence. Remember, an IRR with no brackets is something completely different!

Since the UK left EASA on 31 December 2020, things have changed. Initially much remains the same other than terminology. However, over time, it is expected that the information in this guide will become out of date. It is hoped to keep it revised as much as possible.

Part 1: Instructor Certificates

The Stand-Alone Instrument Rating Instructor (IRI) Certificate

The 'Add-On' Instrument Rating Instructor Certificate

Instructor Certificates

There are several different types of instructor certificate available. Subject to successful completion of an assessment of competence with a suitably qualified examiner, the CAA will issue an appropriate Flight Instructor Certificate. The various types are listed below:

IRI: Instrument rating Instructor – Allows the holder to instruct towards the issue of an EIR, IR or IR(R) in single engined aeroplanes unless the holder also has privileges to instruct for MEP. An IRI cannot instruct ab-initio students unless he also holds an FI certificate. If an IRI holder has the relevant aeroplane rating, then he may instruct on it towards the IRI as long as the student has a valid licence.

FI: Flight Instructor - Required for ab-initio training to LAPL or PPL standard and beyond. Instrument Instruction privileges may be added.

The following will not be covered in this document.

CRI: Class Rating Instructor – Allows the holder to train pilots who already hold a licence, but does not permit ab-initio flight training. It Allows the holder to conduct training towards the issue of a class rating, refresher training, checkouts and differences/familiarisation training. It also allows the holder to train a LAPL holder for upgrade to a PPL. Most of the different instructional privileges can be added to the CRI certificate except Instrument privileges (for which he can obtain a standalone IRI) or FIC privileges (the ability to teach flight instructor courses). The CRI cannot train towards the issue of a night rating (although this does not prevent him from instructing at night).

MI: Mountain Rating Instructor - Allows the holder to instruct towards the issue of a Mountain Rating

FTI: Flight Test Instructor

MCCI: Multi Crew Co-Operation Instructor – Allows the instructor to teach for multi crew operation in airliners, simulators etc

SFI: Synthetic Flight Instructor: Allows the holder to instruct in flight simulators for Single and Multi-Pilot aeroplanes.

STI: Synthetic Training Instructor - Allows the holder to instruct in flight simulators for the issue of a licence and for Single-Pilot aeroplanes.

TRI: Type Rating Instructor - Allows the holder to instruct towards the issue of a type rating for those aircraft which require one.

Routes to Obtaining Instrument Instructional Privileges

There are 2 ways to gain privileges to teach for the IR or IMC Rating/IR(R). Either you can add it on to an existing FI certificate (as the letter h in brackets) or obtain a stand-alone IRI rating with no other instructor certificates held. Indeed, if the instructor is a restricted FI, an FI (LAPL only) or a CRI, this is the only way to obtain instrument instructional privileges, although he is exempted the 25 hrs Teaching & Learning Module. The instructor training course is the same for both routes.

The 'Standalone' Instrument Rating Instructor (IRI) Certificate

Pre-Entry Requirements

No FI or CRI certificate is required, but if either are held, it reduces ground training requirements (25 hours teaching & learning), and if an FI is held, reduces flight training required (by 5 hours).

Before application to the CAA for an IRI certificate to teach on aeroplanes, the applicant must hold either an IR (SP or MP), IMC Rating/IR(R) or an EIR and have at least 800 hours of IFR flight time since issue of the IR etc (of which 50 may be approved simulator hours). 400 hours of the IFR time must be in aeroplanes.

Before application to the CAA for an IRI certificate to teach on FSTDs, the applicant must hold either an IR (SP or MP), IMC Rating/IR(R) or an EIR and have at least 200 hours of IFR flight time since issue of the IR etc of which 50 must be in aeroplanes.

The applicant may apply for the rating holding any kind of IR (for example a multi-crew IR such as a 737 pilot would have), but in order to teach single pilot IR, he must hold a valid single pilot IR.

To apply for an IRI for multi-engines aeroplanes, the applicant must hold a CRI (ME).

Course Details

Flight Training: The IRI course consists of a minimum of 10 hours dual flight instruction (which may be reduced to 5 if an FI certificate (not CRI) is already held). The training must be conducted by a suitably qualified FICI (Flight Instructor Course Instructor) at an ATO.

A suggested breakdown is 5 hours of Basic Instrument Flight including full panel, limited panel Unusual Attitudes & navaid tracking, then 5 hrs of applied instrument flight concentrating on instrument approaches at airfields. This is obviously compressed if only 5 hours flight training is needed.

Ground Training: 35 hours of ground technical training including 25 hours Teaching & Learning, plus technical knowledge and lesson preparation. The 25 hours Teach & Learning is not required if other instructor certificates are held (FI, CRI, TRI, MCCI etc).

NOTE: It is possible to combine an IRI & CRI(ME) on 1 course, which then requires 10 hrs instrument flight, 5 hrs ME flight and 45 hrs groundschool. Similarly with CRI (SE) and IRI - 10 hrs instrument flight, 5 hrs SE flight and 45 hrs groundschool.

Assessment: After the course, the ATO shall complete an Instructor Course Completion Certificate [CAA 5018](#).

There will be an assessment of competence with an FIE examiner at the end, which will consist of a long briefing, short briefing for an IR lesson. That lesson will then be taught in the air as well as other items determined by the examiner. There will follow a debrief on the examiner's performance. At some point, the examiner will assess the applicant's theoretical knowledge. Then the result will be given.

A standalone IRI is shown on the right:

Instructors	Remarks and Restrictions
FI	FCL.905.FI applies as in/(a)/(b)/(e)/(f)/(h)/(i)/(j)/FCL.945
IRI	FCL.905.IRI(a) applies
No Further Entries	

Validity: Valid for 36 months plus the remainder of the month of test.

Privileges: The IRI is a single-engine privilege. The Standalone IRI holder may instruct pilots who already hold a licence, towards an IMC Rating/IR(R) or IR on single engine aeroplanes, unless that IRI holder also has multi-engine FI(h)/CRI (ME) privileges in which case they may instruct for MEP/IR. They may NOT instruct instrument flight to students who do not hold a valid licence unless an FI certificate is also held.

Revalidation

Within the 3 year validity period of the certificate, 2 out of the following 3 must be completed:

- Complete 50 hours flight instruction. If privileges for IR, rather than IMC Rating/IR(R) are sought, then 10 hours instrument instruction must be completed in the final 12 months of validity. If only IMC Rating/IR(R) instructional privileges are needed, then these 10 hours are not required. Hours flown as an examiner on flight tests counts as instructional hours for this purpose.
- Complete Instructor Refresher Training any time within the 3 year's validity. This used to be called an instructor seminar and is essentially the same – a 2 day course with multiple attendees collaborating on lectures and briefings as well as presentations and study groups.
- Complete an assessment of competence with an FIE in the final 12 months of validity.
 - **Note:** An assessment of competence with an FIE is required at least every other revalidation.

The 2 elements may be completed in any order.

Renewal

Both of the following must be completed:

- Complete Instructor Refresher Training any time within the 3 year's validity. This was previously called an Instructor Seminar and is essentially the same – a 2 day course with multiple attendees collaborating on lectures, briefings as well as presentations and study groups.
- Complete an assessment of competence with an FIE.

Once qualified, the instructor will be an IRI with privileges to instruct towards the Instrument Rating. Unlike an FI, the IRI is **NOT** initially restricted to instructing under the supervision of another instructor.

XII - CERTIFICATE OF REVALIDATION

Rating Certificate Endorsement	Date of Rating Test	Date of IR Test	Valid Until	Examiner's Certificate Number	Examiner's Signature
SEP (land)	N/A	N/A	30/09/2022	CAA0031 Civil Aviation Authority	
FI(A)	N/A	N/A	30/09/2024	CAA0031 Civil Aviation Authority	
IRI(A)	N/A	N/A	31/01/2024	CAA0031 Civil Aviation Authority	
MEP(Land) SP	09/09/2021	N/A	30/11/2022	J SHOOTER GBR.345834B	
IR-SE-ME/SE	N/A	09/09/2021	30/11/2022	J SHOOTER GBR.345834B	

An FI and an IRI need to be separately revalidated.

The 'Add-On' Instrument Instructor Certificate FI(h)

For the Add-On to an Existing FI Certificate:

Pre-Entry Requirements

The applicant must be an unrestricted FI, and hold either an IR (SP or MP), IMC Rating/IR(R) or EIR and have at least 200 hours of IFR flight time (of which 50 may be approved simulator hours). If the instructor only wishes to teach towards the UK IMC Rating/IR(R), then this 200 hours is not required, but the certificate will be restricted to teaching only towards the IMC Rating/IR(R). See CAA [Information Notice IN-2016-082](#). Note that this Information Notice also requires the instructor to have CPL knowledge, so specifically excludes the FI (LAPL Only) holder. He must undertake a standalone IRI course to gain instrument instructional privileges.

The applicant may apply for the rating holding any kind of IR (for example a multi-crew IR such as a 737 pilot would have), but in order to teach single pilot IR, he must hold a valid single pilot IR.

Course Details

Flight Training: The add-on course consists of a minimum of 5 hours dual instruction (all of which may be in an approved simulator). The training must be conducted by a suitably qualified FICI at an ATO.

A suggested breakdown is 2 hours of Basic Instrument Flight including full panel, limited panel Unusual Attitudes and navaid tracking, then 3 hours of applied instrument flight concentrating on instrument approaches at airfields.

Ground Training: 10 hours of ground technical training including technical knowledge and lesson preparation.

Assessment: After the course, the ATO shall complete an Instructor Course Completion Certificate [CAA 5018](#).

There will be an assessment of competence with an examiner at the end, which will consist of a long briefing, short briefing for an IR lesson. That lesson will then be taught in the air as well as other items determined by the examiner. There will follow a debrief on the examiner's performance. At some point, the examiner will assess the applicant's theoretical knowledge.

Validity: Validity runs concurrently with the FI certificate (36 months) since it forms part of the FI certificate.

Privileges: The Add-on Instrument FI holder may instruct pilots towards an IMC Rating/IR(R) or IR (unless restricted to IMC rating only) on single engine aeroplanes only, unless that FI holder also has multi-engine instructional privileges.

They may instruct ab-initio pilots who hold no licence.

XII Ratings, certificates and privileges	
Class/Type/IR	Remarks and Restrictions
IR(Restricted)	Restricted to the privileges of the Instrument Meteorological Conditions Rating specified in the United Kingdom Air Navigation Order
MEP (land)	SP
Night	No Remark
SEP (land)	No Remark
No Further Entries	
Instructors	Remarks and Restrictions
FI	FCL.905.FI applies as in/(a)/(b)/(f)/(h) IRR/FCL.945
No Further Entries	
Examiners	
See Certificate Number GBR.123456A	
No Further Entries	

The privileges on the licence may be limited to instruct for the IR(R) only if the instructor does not meet the necessary experience for full IR instruction (eg lack of CPL knowledge or 200 hours IFR).

Revalidation

Revalidation is per the normal FI certificate revalidation:

Within the 3 year validity period of the certificate, 2 out of the following 3 must be completed:

- Complete 50 hours flight instruction. If privileges for IR rather than IR(R) are sought, then 10 hours instrument instruction must be completed in the final 12 months of validity. If only IR(R) instructional privileges are needed, then these 10 hours are not required. Hours flown as an examiner on flight tests counts as instructional hours for this purpose.
- Complete Instructor Refresher Training any time within the 3 year's validity. This used to be called an instructor seminar and is essentially the same – a 2 day course with multiple attendees collaborating on lectures and briefings as well as presentations and study groups.
- Complete an assessment of competence with an FIE in the final 12 months of validity.
 - **Note:** An assessment of competence with an FIE is required at least every other revalidation.

The 2 elements may be completed in any order.

Renewal

Renewal is per the normal FI certificate revalidation:

Both of the following must be completed:

- Complete Instructor Refresher Training any time within the 3 year's validity. This used to be called an instructor seminar and is essentially the same – a 2 day course with multiple attendees collaborating on lectures and briefings as well as presentations and study groups.
- Complete an assessment of competence with an FIE.

Part 2: Instructor Courses

The Instrument Rating Instructor (IRI) Course

In order to keep things simple, the term '**IRI Course**' will be used to describe both courses: the standalone IRI course, and the addition of instrument instructional privileges to an FI certificate. The courses are the same.

The Instrument Rating Instructor (IRI) Course

Pre-Entry Requirements

An instructor wishing to add applied instrument instruction privileges to an FI(A) certificate must be an unrestricted FI.

IRI (Standalone) COURSE PRE-ENTRY CHECKLIST

Hold Relevant current aircraft class rating?	Expiry:	
Hold current Medical Certificate?	Expiry:	
Hold current IR(SP/MP) or IMCR/IR(R)?	Expiry:	
800 hours IFR (400 in aeroplanes) prior to application to CAA?	IFR:	

FI (h) Instrument Add-On COURSE PRE-ENTRY CHECKLIST

Hold Unrestricted FI(A) Certificate?	Expiry	
Hold Relevant current aircraft class rating?	Expiry:	
Hold current Medical Certificate?	Expiry:	
Hold current IR(SP/MP) or IMCR/IR(R)?	Expiry:	
200 hours IFR (50 on aeroplanes) before application to the CAA? Unless teaching for IMCR/IR(R) only.	IFR:	

Course Details

A typical course would consist of the following Syllabus:

COURSE OBJECTIVE

To train pilots/flight instructors to the required level of skill & technical knowledge and develop instructional techniques needed to teach basic and applied instrument flying to the test standard so that a student may exercise safely the privileges of the rating (IR(R)/IMC Rating or IR: see below).

A successful candidate must have good knowledge of the IR & IMC Rating course entry requirements, the training syllabus (ground and air), the skill test/proficiency check formats and the rating privileges.

The Instrument rated instructor may then teach towards the issue of:

Instrument Rating (IR): Provided the instructor has at least 200 hours flight time in accordance with IFR (of which up to 50 hours may be in a flight simulator) and holds a current Instrument Rating (SPA), the instructor may give flight and ground training for the Full Instrument Rating. This will be checked on application to the CAA. If not achieved, the FI(h) will be annotated as IR(R) only. Once 200 hours IFR have been gained, re-application to the CAA is needed to remove this restriction.

IR(R)/IMC Rating: If an instructor wishes to teach for the IMC Rating/IR(R) only, then he is exempted the requirement for 200 hours IFR. He needs only 10 hours flight/approved simulator by reference to instruments only.

On successful completion of the course the applicant will be issued with an FI(h) rating permitting the holder to give ground and flight training for the IR(R)/IMC Rating only. His licence will be annotated as shown on the next page. Only up to 15 hours of the training he gives under this authority will be valid for subsequent upgrade of the IMC rating to a full IR or BIFM. This is an important point, since if the student later wishes to upgrade to a full IR, he will not be able to count more than 15 hours flown with any such instructor(s).

Instructors wishing to teach for the IMC/IR(R) Rating:

Paragraph (d) of Article 4 of the Aircrew Regulation requires that the CAA determines who may instruct for the IMC Rating/IR(R). This section provides clarification for instructors who wish to instruct for the IMC Rating /IR(R) and explains the instructor privileges that must be held. Part-FCL specifies the instructor certificates required to teach for the Instrument Rating. The following instructors are considered competent to deliver instruction for the IMC/ IR(R) Rating:

- a) The holder of a valid Part-FCL FI Certificate issued by the UK CAA who can teach for the IR (eg FCL.905.FI(h) is endorsed on their licence); or
- b) The holder of a valid Part-FCL IRI Certificate issued by the UK CAA. The instructors must also hold the appropriate aeroplane class rating.

In addition, the CAA will authorise instructors to instruct for the IMC/IR(R) if they comply with all of the following:

- a) the instructor must hold a Part-FCL aeroplane licence issued by the UK CAA; and
- b) the instructor must be an FI(A) without supervisory restriction applied, who is qualified to instruct for the single pilot class rating for the class of aeroplane which IR(R) instruction is to be conducted in; and
- c) the instructor must hold a valid IR(R) rating or IR(A) (not EIR) on the Part-FCL licence; and
- d) have passed all TK exams either for the issue of a CPL(A) or IRI(A), subject to the same time limitations stated in Part-FCL Annex I; and
- e) the instructor must have completed at least 10 hrs flt time by sole reference to instruments in an aeroplane, FFS, FTD 2/3 or FNPT II; and
- f) the instructor must have completed the course as specified in FCL.905.FI(h) as detailed in FCL.930.IRI; and
- g) the instructor must pass an Assessment of Competence to instruct for the IR(R) with an FIE as specified in FCL.905.FI(h).

Note that the course specified in FCL.905.FI(h) may be completed for the purpose of qualifying to instruct for the IR(R) without having the prerequisite IFR experience for the issue of the FCL.905.FI(h) privileges.

To ensure that the UK is compliant with Article 4(d) of the Aircrew Regulation, it may be necessary for instructors who are teaching the IR(R) through compliance with the requirements above to have the authorisation to instruct included in their licence by the CAA. Instructors will need to apply for this using on-line form [SRG 2159](#) and pay the appropriate fee. Their Instructor Certificate will be endorsed with '(h)(IR(R))' in the Remarks and Restriction column against the entry for the FI(A) in Section XII of the licence.

XII Ratings, certificates and privileges	
Class/Type/IR	Remarks and Restrictions
IR(Restricted)	Restricted to the privileges of the Instrument Meteorological Conditions Rating specified in the United Kingdom Air Navigation Order
MEP (land)	SP
Night	No Remark
SEP (land)	No Remark
No Further Entries	
Instructors	Remarks and Restrictions
FI	FCL.905.FI applies as in/(a)/(b)/(f)/(h)IRR/FCL.945
No Further Entries	
Examiners	
See Certificate Number GBR.123456A	
No Further Entries	

Instructors qualified in accordance with these requirements above who wish to instruct for the Integrated IR, Modular IR, IR or the Competence Based Modular IR courses, may apply to have the instructor restriction lifted once they meet in full the prerequisite requirements of FCL.905.FI(h). A further application showing evidence of compliance with those requirements may be made using CAA on-line form [SRG 2159](#) and paying of the appropriate fee.

FURTHER COURSE OBJECTIVES

1. The IRI 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 Ground and Flight Training Syllabus is complementary to the IR(R)/IMC Rating or Instrument Rating Pilot Course Syllabus which should already be known by the applicant. Therefore the objective of the course is to:
 - Refresh and bring up to date the technical knowledge of the student instructor;
 - 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 IR(R)/IMC or instrument rating; and
 - 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.
4. The holder of a FI (A) or CRI/TRI rating is exempted from Part One (Teaching and learning) from this course.

IRI COURSE DESCRIPTION

The course is to consist of: -

- A minimum of 10 hours dual instruction (5 if the applicant holds an FI certificate) divided into: (i) Basic IF (20%) & (ii) Applied IF (80%).
- A minimum of 10 hours ground technical training, together with 25 hours of teaching and learning (unless exempt by way of having completed the core course).

The recommended division is as follows:

- Technical Subjects: 3 hours (including 1 hour practice in class)
- Long briefings and pre-flight briefings: 4 hours (including 2 hours practice in class)
- Internal progress tests: 3 hours
- 25 hours Teaching and Learning if not already completed

Training Programme

Ground Training: Syllabus

The ground 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).

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.

General Subjects

Physiological/Psychological Factors: The Senses, Spatial Disorientation, Sensory Illusions, Stress.

Flight Instruments: ASI, Altimeter, VSI, AI, Heading Indicator/DI, Turn & Balance Indicator/TC, Magnetic Compass: Principles of Operation, Errors, In-flight Serviceability Checks, System Failures.

Radio Navigation Aids: Basic Radio Principles, Use of VHF, Morse Code, Principles of Radio Aids, Ground & Aeroplane Equipment, VOR, NDB/ADF, VHF/DF, RADAR, GPS/GNSS, Primary Radar, Secondary Surveillance Radar, Transponders, PAR, Other Nav Systems (RNP), DME, Marker Beacons, Pre-flight Checks, Range, Accuracy & Limitations of Equipment.

Aeronautical information publications: The AIP, NOTAMs, AICs, Information of an Operational Nature (eg RAIM).

SERA, The Rules of the Air and Air Traffic Services: VFR & IFR, Flight Plans & ATS Messages, Use of Radar in Air Traffic Services, Radio Failure.

Classification of Airspace: Airspace Restrictions and Hazards.

Holding and Approach Procedures: Precision Approaches/Non Precision Approaches, APV (LPV), 2D & 3D Approach Operations, 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: Various chart providers, En-route, Dep & Arrival, Instrument Approach & Landing, Amendments, Corrections & 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, TAFs, METARs & SIGMETs, Route Forecast, The Operational Significance of the Meteorological Information Obtained (including icing, Turbulence and Visibility).

Altimeter Considerations: Definitions & understanding of Transition Altitude, Transition Level, Flight Level, QNH, Regional QNH, SPS, QFE.

Altimeter Setting Procedures: Pre-flight Altimeter Checks, Take off & Climb, En-Route, Approach & 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, Nav aids to be used, Frequencies/Codings, Radials & Bearings, Tracks & Fixes, Safety Altitude(s), Fuel Calculations, ATC Frequencies, Tower, Approach, En-Route, Radar, FIS, ATIS, Weather Reports, Minimum Sector Altitudes En-Route at Destination/Alternate Aerodromes, Determination of MDH/MDA at Destination & Alternate Aerodromes inc. CDFA & non CDFA app minima.

The Privileges Of The IMC Rating/Instrument Rating: Outside Controlled Airspace, Within Controlled Airspace, Period of Validity and Renewal Procedures.

After the course, the ATO shall complete an Instructor Course Completion Certificate [CAA 5018](#).

IRI Exercises

Below are a number of lessons that may be taught on the IRI course. It not expected that all lessons will be used.

IRI Exercise 1: Basic Instrument Flying - Full Panel

AIM: To learn how to teach a pilot to fly the aircraft safely on instruments.

IRI Long Briefing 1: Basic Instrument Flying

Consideration on teaching the following:

- Physiological Considerations
- Flight Instruments including Instrument Limitations & System Failures
- Introducing Instrument Appreciation to the pilot
- Attitude Instrument Flight: Pitch & Bank Indications- Different Instrument Presentations
- Use of the AI: Pitch Attitude, Bank Attitude,
- Maintenance of Heading and Balanced flight.

Take-Off

- Transfer to Instruments after Take-off

Attitude, Power & Performance:

How to teach the following on full panel:

- Attitude Instrument Flight
- Control Instruments & Performance Instruments,
- Effect of Changing Power and configuration
- Cross Checking Instrument Indications
- Direct and Indirect Indications (Control vs Performance Instruments)
- Instrument Lag,
- Selective Radial Scan.

The Basic Flight Manoeuvres (Full Panel):

How to teach the following:

- Straight & Level Flight at Various Airspeeds/Aeroplane Configs,
- Climbing, Descending,
- Standard Rate Turns -Level,

Unusual Attitudes:

- Set-Up
- Recovery: Remember the order of recovery: Throttle – Roll – Pitch (unless approaching the stall)

Common Student Errors:

- A discussion of common student errors.

IRI Air Exercise 1:

AIM: To learn how to teach a pilot to fly the aircraft safely on instruments.

Taxying

Importance of teaching Pre-flight instrument checks

Demo of Disorientation/Physiological Sensations

a) Straight and level. b) Student closes eyes and lowers head. c) Lower one wing and then raise the nose whilst positively rolling level. No power change. d) Student identifies turn in direction of wing first lowered. e) Repeat (a) and (b). f) Enter medium turn positively, g) Maintain positive back pressure, h) Reverse the turn gently, i) Student identifies - climbing turn in initial direction.

Demonstration of Pitch indications

- a) Visual straight and level - Indication on AI
- b) Changes of attitude (visual) - Indications on AI, Use of attitude bar or degrees of pitch on AI
- c) Visual turn - Bank angle on AI, Attitude indication AI.

Demonstration of Yaw indications

- a) Straight and level - Visual and AI
- b) Increase power-AI-wings level, Compass/heading indicator changing, Balance indicator yaw, Correction-balance-AI-heading indication-AI
- c) Decrease power – as above.

Performance instruments

- a) Altimeter - Setting procedure, Anticipation when changing altitude.
- b) Air Speed Indicator ASI – Lag, Need to settle attitude before checking
- c) Vertical speed indicator (VSI) – Lag, Reversal large attitude changes, Generally undamped, Time taken to stabilise after attitude change.

Straight climb and descents

- a) Climb - Power - full throttle, Attitude – AI, Yaw - balance indicator – AI, Heading indicator – AI, ASI - AI – VSI, AI - adjust and hold, Repeat.
- b) Descents - Power - approach/low setting, as above.
- c) Levelling - Anticipation (altimeter), Attitude –(hold), Power - cruise (approximate), AI (check), Altimeter – VSI, Repeat, Altimeter – VSI.

Turning flight

- a) Level turns - Bank angle – AI, Balance indicator, Pitch attitude – AI, Altimeter -AI -VSI, Adjust and hold – AI, Cross check balance - AI - Altimeter - VSI (pitch and bank).
- b) Recovery - Level attitude - AI, Balance indicator, Altimeter, Adjust and hold - AI, Altimeter - AI - VSI, AI.

Specific Performance

- a) All instruments – Power, Attitudes - select & hold, Performance Instruments: airspeed, VSI, altimeter, Adjust attitude power, Re-check performance
- b) Changed configuration - As above but extending flaps and undercarriage.

Common Student Errors:

Instructor-led in flight demonstration of common student errors.

IRI Exercise 2: Basic Instrument Flying - Limited Panel

AIM: To learn how to teach a pilot to fly the aircraft safely on instruments in the event of failure of the Attitude and Heading Indicators.

IRI Long Briefing 2:

How to teach the following on Limited Panel:

Basic Flight Manoeuvres:

- Straight & Level at various speeds & configurations
- Climbing & Descending
- Turning
- Climbing & Descending Turns

Modified Scanning Technique

- Selective scanning technique using the Turn Indicator or turn co-ordinator for detecting yaw either because the rudder is not balanced or because the wings are not level.
- Combination of altimeter, VSI and airspeed for the indirect interpretation of pitch attitude.
- Basic scanning patterns and the combination of instruments to use during level flight, climbing, descending and turning.
- Revision of characteristics and behaviour of the performance instruments; indirect indications of attitude:

Unusual Attitudes:

- Setup
- Recovery: Remember the order of recovery: Throttle – Roll – Pitch.

Common Student Errors:

- A discussion of common student errors.

General Notes

Limited panel instrument flying should be introduced early in the instrument training phase of the course and should be practised concurrently with full panel training. In this way the students' general level of instrument flying competence and the confidence is increased and the exercise does not assume an importance out of proportion to its difficulty.

Since in this exercise the aircraft is controlled by reference to the performance instruments (the control instruments being assumed to have malfunctioned) it is important that the student is aware of the limitations and possible erroneous indications of the performance instruments as demonstrated in the previous Exercise.

NOTE: The term 'partial panel' has a different meaning and should not be used in this context.

IRI Air Exercise 2:

During Flight

Attitude Interpretation using the Performance Instruments (limited panel)

Level Flight, Climbing and Descending

Changing Speed and Configuration: Exercise to practise instrument scan and co-ordination of controls.

Compass/Timed Turns: Both types of turn at standard rate onto specified headings; correction of residual errors after completion of initial turn.

Unusual attitude recoveries: Practice limited panel recoveries visually. Remember the order of recovery: Throttle – Roll – Pitch.

Steep turns

- a) Full panel – entry. (i) Gentle application of bank - balance – power. (ii) Attitude and bank angle – AI. (iii) Height - altimeter, VSI
- b) Full panel – recovery. (i) Gentle roll out - AI - balance – power. (ii) Att for level flight - AI, balance, heading indicator. (iii) Ht check - altimeter, VSI
- c) Partial panel – entry. (i) Gentle application of bank - turn indicator – balance. (ii) Power increased on entry. (iii) Turn indicator to maintain bank
- d) Partial panel – recovery. (i) Level wings - turn indicator. (ii) Balance - power reduced. (iii) Height check - altimeter – VSI.

Approach to the stall

Recoveries from level flight and other attitudes and conditions:-

- a) Instrument indications of approaching stall: (i) Low airspeed, (ii) Loss of height, (iii) Stall warning
- b) Recovery - full panel: (i) Attitude selection – AI, (ii) Power – full, (iii) Direction - heading indicator, (iv) Balance.
- c) Recovery - limited panel: (i) Attitude for level flight - ASI-ALT-VSI, (ii) Power–full, (iii) Level wings - TC, (iv) Balance, (v) Level flight, VSI.

Note: Excessive attitude corrections can cause VSI reversal.

Straight Dive

- a) Recovery – visual: (i) Power reduced, (ii) Check wings level, (iii) Return to level flight.
- b) Recovery full panel : (i) Power reduced, (ii) Check wings level – AI, (iii) Select level attitude, VSI, (iv) Check level, Altimeter, VSI, (v) Check direction AI, heading indicator
- c) Recovery limited panel: (i) Power reduced, (ii) Wings level - turn indicator, balance, (iii) Pitch up until IAS checks - hold - ignore turn indicator during pitch, (iv) Lateral level - turn indicator, balance, (v) Level attitude - altimeter, ASI, VSI, (vi) Direction - balance, turn indicator, (vii) Adjust as necessary.

Spiral Dive

- a) Recovery – visual: (i) Wings must be levelled before pitch up or spiral tightens.
- b) Recovery full panel: (i) Pwr reduced, (ii) Wings level – AI, (iii) Select level att, VSI, (iv) Check level, Altimeter, VSI, (v) Check direction AI, DI.
- c) Recovery partial panel: (i) Pwr reduced, (ii) Wings level - turn indicator avoid back pressure – balance, (iii) Pitch up until airspeed checks - hold - ignore DI during pitch, (iv) Lateral level - turn indicator, balance, (v) Level atti - altimeter, ASI, VSI, (vi) Direction - balance, turn indicator, (vii) Adjust as necessary.

Common Student Errors:

Instructor-led in flight demonstration of common student errors.

IRI Exercise 3 Instrument Flying: Navigation Aids

IRI Long Briefing 3:

3a: VOR Radio Navigation:

Availability of VOR Stations En-Route, VOR Frequencies & Ident, Signal Range, Effect of Altitude, VOR Radials, Use of OBS & HSI, To/From Indicator, Orientation, Selecting Radials, Intercepting Pre-Selected Radial, Assessment of Distance to Interception, Effects of Wind, Maintaining a Radial, Tracking To/From a VOR, Procedure Turns, Station Passage, Use of 2 Stations for Obtaining a Fix, Assessment of GS and ETA, Holding & Entries, Communications.

3b: ADF/NDB Radio Navigation:

Availability of NDB Facilities En-Route, Location, Frequencies, Tuning and Identification Codes, Signal Reception Range, Static Interference, Night Effect, Station Interference, Mountain Effect, Coastal Refraction, Orientation in Relation to a NDB, Homing, RBI vs RMI, 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 use of one NDB and another Navaid, Holding Procedures, Various Approved Entries, Communication (R/T Procedures and ATC Liaison).

3c: GNSS/GPS Radio Navigation:

RAIM checks,

Specific to GNSS system available: Power up, keys & knobs, Screen layout, cursors & frequency selection, Page selection 5 groups: NAV, WPT, AUX, NRST & FPL, Direct to Navigation & other features, Map page, Flight plan page, Approaches & missed approaches.

3d: DME:

Availability of DME Facilities, Location, Frequencies & Identification (higher pitch to DME ident, and less frequent), Signal Reception Range, Slant Range, Use of DME to obtain Distance, GS & time to Run, Use of DME to obtain a Fix.

3e: Transponders (SSR):

Operation of Transponders - Modes

Code Selection Procedure: Emergency Codes, Frequency Monitoring Codes.

3f: En-route Radar:

Availability of Radar Services, Location, Station Frequencies, Call Signs and Hours of Operation, AIP and NOTAMs, Provision of Service (Basic, Traffic, Deconfliction, Procedural, Radar Control), Communication (R/T, Procedures and ATC Liaison), Emergency Service, Aircraft Separation Standards.

VHF/DF (VHF Direction Finding): (Optional)

Discussion of lack of DF stations. Availability of VHF/DF Facilities En-Route, Location, Frequencies, Station Call Signs and Hours of Operation, Signal and Reception Range, Effect of Attitude, Communication (R/T Procedures and ATC Liaison), Obtaining and using types of bearings, e.g. QTE, QDM, and QDR, Homing to a Station. Effect of Wind, Use of Two VHF/DF Stations to Obtain a Fix (or One VHF/DF Station and another Navaid), Assessment of Ground speed and ETAs.

Common Student Errors:

A discussion of common student errors.

IRI Air Exercise 3:**Radio Instrument Tracking**

How to teach a pilot the following:

VOR:

- To ensure that the navaid is identified every time.
- To position fix in conjunction with a DME or with 2 VORs
- To track towards a VOR station along a specified radial.
- To track away from VOR station along a specified radial.
- To intercept a given radial to or from a VOR.

NDB:

- To ensure that the navaid is identified every time.
- To position fix in conjunction with DME
- To track towards an NDB station along a specified track.
- To track away from an NDB station along a specified track.
- To intercept a given track to or from an NDB.

GNSS/GPS:

- Setup of specific GPS receiver, Direct To Navigation, Use of various pages in flight

DME:

- To ensure that the navaid is identified every time. To use the DME in conjunction with other navaids.

Transponder:

- Use of particular model. Ground check of output altitude/FL.

En-Route Radar:

- RT & Services available

VDF (If available):

- RT & Method of use.

Common Student Errors:

- Instructor-led in flight demonstration of common student errors.

General Notes**Radio Instrument Tracking**

Accurate radio instrument tracking forms the basis of all procedural instrument flying so time spent in thoroughly learning this aspect of instrument flying will be invaluable to the student. The aim must be to start the student off with very basic rule of thumb procedures building up to a mental picture of the position of the aircraft in relation to the radio facility.

The trainee instructor should understand and be able to teach the concept of Max Drift.

IRI Exercise 4 Instrument Flying: Pre-Flight & Instrument Departure

IRI Long Briefing 4: Pre-Flight & Departure

To discuss how to teach the following:

Choice of route & destination for training,
Filing of Flight Plans,
Serviceability of the Aeroplane. Radio & Radio Navigation equipment installed, Displays
Loading of Instrument departures into the GPS
Departure Clearances,
Set up of Nav aids prior to departure, Taxi Instrument checks,
Departure Procedures & SIDs,
Frequency Changes,
Altitude and Position Reporting,
Obstacle Clearance Considerations
Transition to IMC/Simulated IMC

Common Student Errors:

A discussion of common student errors.

IRI Air Exercise 4: Instrument Departure:

Instrument Checks

Pre-flight check of all flight instruments and radio navigation equipment using checklists. Taxi Instrument Checks.

Instrument Departure:

Radio Instrument Tracking: VOR, ADF & GPS/GNSS

- a) Nav aid tuning and identification. DOC from AIP
- b) Interception angle – range
- c) Effect of wind
- d) Scan pattern
- e) Maintaining track - needle indication
- f) Calculation of magnetic heading (RBI)
- g) Assessment of wind direction
- h) Avoidance of ADF/VOR Needle chasing and homing
- i) ADF Needle dip
- j) Nav aid station passage
- k) Loading & Checking of RNAV SIDs
- l) Tracking RNAV SIDs

Common Student Errors:

Instructor-led in flight demonstration of common student errors.

IRI Exercise 5: En-Route, Holding & ILS 3D Approach Operations

IRI Long Briefing 5:

To discuss how to teach the following:

- Choice of route & destination for training,
- Radio & Radio Navigation equipment installed, Displays
- Airways Clearances & RT Procedures
- Set up of Nav aids en-route
- Descent planning
- STARs & arrival procedures
- Hold entry, flying the hold. Adjusting the hold.
- Selection & Interpretation of Approach chart
- Selection & Identification of nav aids
- Selection & loading of procedures from GPS
- Aircraft Configuration changes
- Lateral & Vertical Navigation
- Timing & Distance checks
- Determination of minima. Execution of go-around.
- Missed approach procedure.

Common Student Errors:

A discussion of common student errors.

General Notes

- This phase of the instrument flying training introduces all the procedural flying which the student will meet in subsequent commercial operations. It also equips the student with the necessary skills to pass the CAA IMC Rating Test or Instrument Rating Test.
- It is assumed that the student has achieved a satisfactory standard of instrument flying before any procedures are introduced. The instructor should always be prepared to revise basic IF techniques if problems are encountered.

Radio Instrument Tracking

Accurate radio instrument tracking forms the basis of all procedural instrument flying so time spent in thoroughly learning this aspect of instrument flying will be invaluable to the student. The aim must be to start the student off with very basic rule of thumb procedures building up to a mental picture of the position of the aircraft in relation to the radio facility.

The trainee instructor should understand and be able to teach the concept of **Max Drift**.

IRI Air Exercise 5:

Holding procedures

- Hold Joining:** a) Assess entry sector – use aircraft heading. b) Assess wind effect: timing & drift. c) Beacon passage - turn, time, talk
- Hold Timing:** a) Overhead abeam, wings level whichever latest, b) QDR 1 minute +/- 1 sec per knot head/tailwind.
- Hold Tracking:** a) Outbound leg 3 x drift (2x drift within 60° of wind), b) Check gate on outbound leg, d) Intercept inbound QDM - single drift.
- Subsequent holds:** a) Timing errors - divide by 2 and apply outbound, b) Tracking errors - adjust drift outbound.

Instrument Landing System (ILS)

Localiser (LOC):

- | | |
|---|---|
| a) Check tuning & ident of ILS | h) R/T phraseology |
| b) Approach chart selection & interpretation | i) Final checks |
| c) Calculate Decision Height/Attitude or use chart minima | j) Scan pattern |
| d) Calculate drift as applicable | k) Track adjustments on the ILS - small corrections |
| e) Calculate timing from marker to threshold or as reqd | l) Scan pattern |
| f) Use of heading bug | m) Final Approach Point (FAP) Time - Track - R/T call |
| g) Localiser intercept angle - LOC active - turn on | n) Time elapsed - missed approach or land |

Glideslope (G/S):

- | | |
|--|--|
| a) Calculate rate of descent - use chart or GS readout | h) Maintain G/S - small pitch attitude changes |
| d) LOC established. Consider configuration change | i) Airspeed - power as required |
| c) G/P + 1 dot prepare for descent | j) FAP/SDF - Check height/altitude - Maintain G/S - R/T call |
| d) G/S central - configuration - attitude for descent | k) DH/A + 50 feet - prepare for missed approach |
| e) Know target rate of descent | l) DH/A visual - maintain attitude - final checks – land |
| f) Scan pattern | m) DH/A - no visual - missed approach |
| g) Final checks | |

Missed Approach:

- | | |
|------------------------------------|---------------------------------------|
| a) Full Power (or as required) | e) Maintain track or turn as required |
| b) Level wings | f) Settled in climb - R/T call |
| c) Select Climbing attitude | g) Follow chart |
| d) Configuration changes as needed | h) After take-off checks |

Common Student Errors:

Instructor-led in flight demonstration of common student errors.

IRI Exercise 6: VOR, NDB & RNP 2D & 3D Approach Operations

IRI Long Briefing 6: Non-Precision Approach Procedures & 2D Approach Operations

Non-Precision Approach Charts,
Initial Approach to the IAF and Minimum Sector Altitude,
ATC Liaison, Communication (ATC Procedures and R/T Phraseology),
Approach Planning,
Holding,
The Approach Track,
Mental Picture of the Approach,
Initial Approach Procedure,
AOM,
Completion of Approach Planning,
Achieving the Horizontal and Vertical Patterns,
Assessment of Distance, GS, Time, and ROD from the (FAF) to the Aerodrome,
CDFA. Stabilised approach criteria,
Approach ban,
Use of DME,
Go around and Missed Approach Procedure, Published MISAP,
Transition from Instrument to Visual Flight (Sensory Illusions),
Visual Manoeuvring after an Instrument Approach, Circling Approach, Visual Approach to Landing.

Common Student Errors:

A discussion of common student errors.

General Notes

- This phase of the instrument flying training introduces all the procedural flying which the student will meet in subsequent commercial operations. It also equips the student with the necessary skills to pass the CAA IMC Rating Test or Instrument Rating Test.
- It is assumed that the student has achieved a satisfactory standard of instrument flying before any procedures are introduced. The instructor should always be prepared to revise basic IF techniques if problems are encountered.

Radio Instrument Tracking

Accurate radio instrument tracking forms the basis of all procedural instrument flying so time spent in thoroughly learning this aspect of instrument flying will be invaluable to the student. The aim must be to start the student off with very basic rule of thumb procedures building up to a mental picture of the position of the aircraft in relation to the radio facility.

The trainee instructor should understand and be able to teach the concept of **Max Drift**.

IRI Air Exercise 6:

Teaching the NDB or VOR Approach

- (a) Check Navaid tuning, Ident & setup
- (b) Approach chart selection and interpretation
- (c) Calculation of DA/MDA
- (d) Calculation of drift
- (e) Calculation of timing if required
- (f) Interception of FAT $\pm 5^\circ$ at published altitude
- (g) Maintenance of track. Scan procedure. Configuration changes
- (h) Descent with procedure

Teaching the 2D RNP Approach

- (a) Load & check procedure
- (b) Approach chart selection and interpretation
- (c) Calculation of DA/MDA
- (d) Calculation of drift
- (e) Calculation of timing if required
- (f) Interception of FAT $\pm 5^\circ$ at published altitude
- (g) Maintenance of track. Scan procedure. Configuration changes
- (h) Descent with procedure

Teaching the 3D RNP Approach

- (a) Load & check procedure
- (b) Approach chart selection and interpretation
- (c) Calculation of DA
- (d) Calculation of drift
- (e) Calculation of timing if required
- (f) Interception of FAT $\pm 5^\circ$ at published altitude
- (g) Maintenance of track. Scan procedure. Configuration changes
- (h) Intercept Glidepath using Vertical Deviation Indicator

Common Student Errors:

Instructor-led in flight demonstration of common student errors.

- (h) R/T calls as required – checklist actions
- (j) Check altitudes against chart
- (k) Beacon passage (if applicable)
- (L) Lateral and vertical profile maintenance
- (I) Approach to DA/MDA
- (m) Missed Approach Point (MAP) - land or go-around
- (n) Visual - land/circle
- (o) Non visual - Missed Approach.

- (h) R/T calls as required – checklist actions
- (j) Check altitudes against chart distance every mile or as published
- (k) Approach Status Annunciation by FAF – Announce 'LNAV' etc
- (L) Lateral and vertical profile maintenance
- (I) Approach to DA/MDA
- (m) Missed Approach Point (MAP) - land or go-around
- (n) Visual - land/circle
- (o) Non visual - Missed Approach. SUSP

- (h) R/T calls as required – checklist actions
- (j) Check altitude against chart at FAF
- (k) Approach Status Annunciation by FAF – Announce 'LPV' etc
- (L) Lateral and vertical profile maintenance
- (I) Approach to DA
- (m) Missed Approach Point (MAP) - land or go-around
- (n) Visual - land/circle
- (o) Non visual - Missed Approach. SUSP

Extra IRI Lesson – Your Student’s Pre-Test Paperwork

Practical Considerations

As an instructor, it is a very important part of your student’s training, that you ensure his paperwork is ready for the examiner. Few examiners have the patience to wait while badly completed forms are filled out or corrected.

The Course Completion Certificate

The examiner will need to see a correctly completed and signed course completion certificate.
For the initial Instrument Rating, form [CAA 5011](#) is used.

IR Course Completion Certificate – Aeroplane/Helicopter/Airship Instrument rating in a Part-FCL Pilots licence



This form is intended for use in the provision of evidence in support of an application made to the CAA using the CAA's online application service. Once completed the form should be scanned or photographed and uploaded by the applicant as part of an online application to the CAA.

FALSE REPRESENTATION STATEMENT

It is an offence under the UK Air Navigation Order to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission or other document. This offence is punishable on summary conviction by a fine and on conviction on indictment with an unlimited fine or imprisonment or both.

1. APPLICANT DETAILS

CAA Personal Reference number (if known): Date of Birth: **21/05/2001**
Title: **Mr** Forename: **John** Surname: **Walker**

2. PARTICULARS OF INSTRUMENT RATING AND COURSE COMPLETED

Complete as applicable

- ☐ The pilot has completed a full approved course of training for the Instrument Rating
☐ The pilot has completed a reduced approved course of training for the Instrument Rating based on:
☐ Part-FCL CPL or BFM Certificate held in the same category as applied for
☐ Part-FCL pilots licence with Instrument Rating in different category than applied for
☐ Valid Third Country ICAO pilots licence with Instrument Rating in the same category as applied for
☐ Qualify under the published UK Armed Forces, Military Accreditation Scheme.
☐ The pilot is applying for CB IR on the basis of a valid ICAO Instrument Rating with at least 50 hours of flight time under IFR as PIC on aeroplanes and demonstrated to the examiner during skill test and adequate level of Theoretical Knowledge.
☐ The pilot is applying for CB IR on the basis of a valid ICAO Instrument Rating with at least 50 hours of flight time under IFR as PIC on aeroplanes and have valid Theoretical Knowledge exams.
☒ The pilot has completed a full Competency Based Instrument Rating (CB IR) approved course.
☐ The pilot has completed a reduced Competency Based Instrument Rating (CB IR) approved course with a credit based on instrument flight instruction provided by an IRI(A) or an FI(A) holding the privilege to provide training for the IR.
☐ The pilot has completed a reduced Competency Based Instrument Rating (CB IR) approved course with a credit based on instrument flight time as PIC on aeroplanes, under a rating providing the privileges to fly under IFR and in IMC.
☐ The pilot has completed a reduced Competency Based Instrument Rating (CB IR) approved course with a credit based on having instrument flight time under instruction other than above.

Please state the basis on which you are requesting the credit (if applicable):

3. CONFIRMATION OF THEORETICAL COURSE COMPLETED

To be completed by the ATO who conducted Theoretical Knowledge training

Aircraft Category: Aeroplanes ☒ Helicopters ☐ Airships ☐

Syllabus: IR ☐ ATP ☐ CB IR ☒

Theoretical Knowledge training completed on course: **90** (hours).

Competent Authority with whom the Examinations were taken: **UK CAA**

Copy of results to be provided with application and copy of ATO approval certificate (if ATO and the examinations not approved by the UK CAA)

3. CONFIRMATION OF THEORETICAL COURSE COMPLETED – CBIR ONLY

To be completed by the ATO who conducted Theoretical Knowledge training

The applicant has completed: (select one)

Part-FCL ATPL(A) Theoretical Knowledge ☐ Part-FCL IRI(A) Theoretical Knowledge ☐ Part-FCL CB IR Theoretical Knowledge ☒

Name of Approved Training Organisation (ATO): **Kestrel Flight School**

ATO number: **0666** ATO issuing Authority: **UK CAA**

Name of Head of Training: **Hubert Kestrel** Signature: *Hubert Kestrel* Date: **18/02/2024**

4. PART-FCL INSTRUMENT RATING COURSE CERTIFICATE

To be completed by the ATO

I certify that (name) **John Walker** has satisfactorily met the pre-requisite requirements in accordance with Part-FCL prior to commencing a course of training and has satisfactorily completed a training for the grant of an Instrument Rating.
I further certify that I have examined the applicant's flying logbook(s) and that the entries in them meet in full the flying experience requirements for the grant of an instrument rating in accordance with Part-FCL.

Date IR course commenced: **23/11/2023** Date IR course completed: **16/02/2024**

Date ATO received permission from UK CAA to conduct a reduced course (if applicable):

The course consisted of:

Aeroplanes

42 hours dual instrument flight instruction in a single engine aeroplanes

..... hours dual instrument flight instruction in a multi engine aeroplanes

Helicopters

..... hours dual instrument flight instruction in a single engine helicopters

..... hours dual instrument flight instruction in a multi engine helicopters

Airships

..... hours dual instrument flight instruction

Simulator experience (if applicable)

0 hours instrument ground time in a FTD 2/3 or FNPT I ☐ FNPT II/III ☐ Flight Simulator ☐

FTD Identification Number of simulator used (must be issued in accordance with the Aircrew regulation)

Competent Authority issuing Qualification Certificate for the simulator

Night Rating held: Yes ☒ No ☐

Name of Approved Training Organisation (ATO): **Kestrel Flight School**

ATO number: **0666** ATO issuing Authority: **UK CAA**

Name of Head of Training: **Hubert Kestrel** Signature: Date: **18/02/2024**

5. FLYING CREDITS – CBIR ONLY

To be completed by the ATO

I certify that (name) **John Walker** has received a reduced course of instrument training and I have checked the logbook to confirm that the applicant hold the following credits (complete as applicable):

Has completed **42** hours flight instruction under IFR in IMC or VMC in aeroplanes provided by an IRI/FI(A) in accordance with Commission Regulation (EU) 1178/2011 as amended, Annex I, Appendix 6, Section Aa, 6(a)

Has completed **0** hours under IFR as PIC on aeroplanes as referred in Commission Regulation (EU) 1178/2011 as amended, Annex I, Appendix 6, Section Aa, 6(a)

Has completed **0** hours instrument flight instruction in aeroplanes other than specified above

Has completed **0** hours flight time under IFR as PIC on aeroplanes (multi-engine IR only)

Has completed **0** hours dual instrument instruction in a multi-engine aeroplane (multi-engine IR only)

Has completed **0** hours flight time under IFR time as PIC on multi-engine aeroplanes

Night Rating held: Yes ☒ No ☐

Name of Approved Training Organisation (ATO): **Kestrel Flying School**

ATO number: **0666** ATO issuing Authority: **UK CAA**

Name of Head of Training: **Hubert Kestrel** Signature: *Hubert Kestrel* Date: **18/02/2024**

6. TEST RECOMMENDATION

To be completed by the ATO

To be completed for all applications, with the exception of those applying for a CB IR on the basis of at least 50 hours of flight time under IFR as PIC on aeroplanes with a valid third country ICAO licence and instrument rating.

Recommendation for Skill Test made by (Name): **Algenon Kestrel**

Licence number: **246864J**

Competent Authority issuing approval: **UK CAA**

Name of Approved Training Organisation (ATO): **Kestrel Flying School**

Name of Head of Training: **Hubert Kestrel** Signature: *Hubert Kestrel* Date: **18/02/2024**

For an IR renewal or revalidation **SRG 1107** is used:

Course Completion Certificate for issue, revalidation, renewal or variation of a Single or Multi-Pilot Type/Class Rating or the renewal of an Instrument Rating



This form is intended for use in the provision of evidence in support of an application made to the CAA using the CAA's online application service. Once completed the form should be scanned or photographed and uploaded by the applicant as part of an online application to the CAA.

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1 COURSE/TRAINING COMPLETION CERTIFICATE

To be completed by the Training Organisation

If a separate course completion certificate has not been provided

I certify that (name) **John Walker** CAA Personal reference number (if known): **1 2 4 6 3 2 G**

Date of Birth **13/07/1999** has satisfactorily completed a course of training in accordance with Part-FCL for the following:

Type/Class Rating ☐ and/or Instrument Rating ☒

Date Training commenced: **05/01/2024** Date Training completed: **05/01/2024**

Aircraft Type/Class name (including variants) **MEP (land) Be-76**

Training completed (select one):	Initial Type/Class Rating Training <input type="checkbox"/>	Refresher Training <input checked="" type="checkbox"/>	No Refresher Training required <input type="checkbox"/>	Extend privileges of the class/type rating and/or instrument rating <input type="checkbox"/>
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The course consisted of **3** hours of flight instruction of which **0** hours consisted of synthetic flight instruction in a FNPT I or FNPT II/III or FTD 2/3 or FFS. FSTD Identification Number of device used (which must be issued in accordance with UK (EU) Regulation no. 1178/2011) (Please annotate UK FSTD/FTD/FFS Identification number if available).

Competent Authority issuing qualification certificate for the device.:

Please specify a specific instrument rating training hour separately from the type/class rating training hours

(For MEP only) hours of dual flight instruction in engine failure procedures and asymmetric flight techniques.

Flight Details (if applicable*):

Aircraft Registration: Number of take-offs and landings:

Base training Instructor name: Licence number:

Authorising Competent Authority:

Theoretical Knowledge Training (if applicable*):

Theoretical knowledge examination pass mark (%): Date:

The applicant has completed a reduced course of training. ☐ Please state the basis for this and provide a detailed explanation (if applicable):

Recommended for Skill Test or Proficiency Check by:

Name: **Algenon Kestrel** Position: **Instructor** Licence No: **123456A**

Approved Training Organisation Details:

Approved Training Organisation (ATO)/Declared Training Organisation (DTO) **Kestrel Flying School**

ATO/DTO number: **0666** ATO/DTO issuing Authority: **UK CAA**

Name of Head of Training (or authorized signatory**): **Hubert Kestrel** Position: **CFI/HoT**

Signature of Head of Training or authorized signatory:  Date: **05/01/2024**

For the IMC Rating, form [CAA 5019](#) is used. The same form is used for initial, revalidation and renewal.

Instrument Meteorological Conditions Rating/Instrument Rating

(Restricted) Course Completion Certificate

For pilots holding UK issued Part-FCL or UK ANO licences aeroplane only

This form is intended for use in the provision of evidence in support of an application made to the CAA using the CAA's online application service. Once completed the form should be scanned or photographed and uploaded by the applicant as part of an online application to the CAA.



FALSE REPRESENTATION STATEMENT

It is an offence under the UK Air Navigation Order to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission or other document. This offence is punishable on summary conviction by a fine and on conviction on indictment with an unlimited fine or imprisonment or both.

1. APPLICANT DETAILS

CAA Personal Reference number (if known): **2 3 7 8 4 0 B** Date of Birth: **03/10/2002**

Title: **Mr** Forename: **James** Surname: **Walker**

2. IMC RATING COURSE DETAILS

To be completed by UK ATO/ATO/IRI/IRE/CRE/FE holding the correct course approval

I certify that (name) **James Walker** has satisfactorily met the pre-requisite requirements in accordance with CAP 804 or Part-FCL and prior to commencing a course of training and has a satisfactorily completed a course of training for the grant of the UK Instrument Meteorological Conditions ☐ or Instrument Rating (Restricted) ☒ (annotate as appropriate)

I further certify that I have examined the applicants flying logbook(s) and the entries in them meet in full the flying experience requirements for the grant of an Instrument Meteorological Conditions or Instrument Rating (Restricted) in accordance with CAP 804 or Part-FCL ☒

FRTOL held: Yes ☒ No ☐

Date IMC/IR(R) course commenced: **19/12/2023** Date IMC/IR(R) course completed: **05/02/2024**

Course completed for the purpose of (select one): Initial Issue ☒ Revalidation ☐ Renewal ☐

2.1 IMC/IR(R) RATING COURSE DETAILS

To be completed by UK ATO/ATO/IRI/IRE/CRE/FE holding the correct course approval

The course consisted of:

Aeroplane experience (initial issue only)

The pilot has completed a full UK approved course of training for the Instrument Meteorological Conditions and/or Instrument Rating (Restricted):

Yes ☒ No ☐

21 hours dual instruction **16** hours solo reference to instruments

The pilot has completed training as required for the Instrument Meteorological Conditions and/or Instrument Rating (Restricted) with a valid

UK Flight Instructor in accordance with Part-FCL FCL.905.FI(h IRR):

Yes ☐ No ☐

Please specify training completed:

UK Flight Instructor certificate/licence number:

Simulator experience (if applicable)

0 hours instrument ground time in a (select one): FTD 2/3 of FNPT I ☐ FNPT II/III ☐ Flight Simulator ☐

FSTD Identification number of simulator used (if applicable):

Competent Authority issuing qualification certificate for the simulator (if applicable):

Name of UK Training Organisation (if applicable): ATO number (if applicable):

IMC/IR(R) ground examination (if applicable)

Theoretical knowledge examination passed on: **02/01/2024** Paper set no: **0214** Pass mark: **92%**

Theoretical knowledge assessed by (examiner name): **Anne Kestrel** Examiner number: **145345V**

3. FLIGHT TEST

To be completed by UK IRE/CRE/FE holding the correct course approval

I hereby certify that the applicant (name) **James Walker** has satisfactorily passed a flight test for the grant of a UK Instrument Meteorological Conditions and/or UK Instrument Rating (Restricted) in accordance with CAP 804 or Part-FCL.

Date of flight test: **08/02/2024** Aircraft type: **PA-28** Aircraft registration: **G-BOOF**

Name of UK examiner: **Rachel Kestrel** UK Examiners number: **227452G**

4. CREDITS

To be completed by UK ATO/ATO/IRI/FE holding the course approval

I certify that (name) has received a reduced course of instrument meteorological training due to the following:

- ☐ The pilot holds a valid single pilot ICAO IR(A)
- ☐ The pilot used to hold a single pilot ICAO IR(A)
- ☐ The pilot holds a UK Military IR(A)
- ☐ The pilot previously held a UK Military Green IR(A)
- ☐ The pilot previously held a UK Military Amber IR(A)
- ☐ The pilot previously held a UK Military White IR(A)
- ☐ The pilot has qualified for the AOPA Ground Instructors certificate
- ☐ The pilot holds a valid UK CAA issued PPL(H)
- ☐ The pilot holds a Part-FCL PPL(H) night rating
- ☐ The pilot has qualified for the AOPA Radio Nav Certificate

Please provide any further relevant information in respect of this

Sufficient evidence of the above must be submitted in support of the application for the Instrument Meteorological Conditions or Instrument Rating (Restricted). Failure to do so may result in a delay with the application being processed. If applying on the basis of UK Military credits the SRG2133 must be completed and submitted in addition to this form.

The credit obtained is for (select one or both if applicable):

Theoretical knowledge exam ☐

Flight Training ☐

Name of UK Approved Training Organisation (ATO): **Kestrel Flying School**

UK ATO number: **0666** ATO issuing Authority: **UK CAA**

Name of Head of Training: **Hubert Kestrel** Signature: Date: **09/02/2024**

All course completion certificates must be signed by the CFI or Head of training of the ATO.

Part 4: Student Ratings & Courses

The PPL Course

PPL Course Lessons

The Instrument Rating (IR)

Modular Instrument Rating

Competency Based Instrument Rating (CB-IR)

Instrument Rating (Aeroplane) Skill Test

The UK IMC Rating/IR(R) & Course

Competency Based Instrument Rating (CB-IR & CBM-IR)

Note:

There is some confusion over the use of the term CB-IR within the CAA and general pilot community:

- The CAA tend to use the term CB-IR to mean a foreign based pilot who wishes to use his previous experience to apply for a UK IR.
- The CAA use the term CBM-IR for a UK licensed pilot who wishes to use his previous instrument training as a basis for upgrade to an IR.

However, even within the CAA documentation, the term CB-IR may be used to describe the second situation. In this document, we will distinguish by using the term – Foreign IR holder CB-IR for the first case.

Foreign IR Holder CB-IR

Pre-Entry Requirements:

The applicant for a Foreign IR holder CB-IR must have:

- A UK PPL(A) with FRTOL, a CPL(A) or an ATPL(A) in current flying practice
- An ICAO third country Instrument rating (eg USA FAA IR)
- An appropriate medical certificate (Class 1 or 2 as needed).
- The class or type rating for the aircraft on which the skill test is to be undertaken, eg SEP (land) or MEP (land).
- There is no requirement for the foreign IR holder to carry out any training or attend an ATO (however it may be a good idea). No course completion certificate will be required.
- Have logged at least 50 hours PI IFR (not necessarily IMC) flight time on the foreign IR.
- For multi-engine, single pilot IR, at least 15 hours of the 50 hour requirement for Pilot in Command under IFR must have been flown in a multi engine aeroplane.

Foreign CB-IR COURSE PRE-ENTRY CHECKLIST

Hold UK PPL(A) with FRTOL, CPL(A) or ATPL (A)	Type:	
Hold Relevant current aircraft class rating?	Expiry:	
Hold current Medical Certificate?	Expiry:	
Hold current Foreign IR?	Country: Expiry:	
SE: Have logged at least 50 hours PIC IFR (not IMC)?	Hours?	
ME: As above but at least 15 hours in ME aircraft P1 IFR	Hours?	

Ground & Flight Training

None required.

Assessment

The Foreign rated pilot must pass an initial IR(A) skill test with an IRE assigned by the CAA. The IRE will orally assess the pilot's knowledge of UK procedures and air law during the skill test. This may be a long session of oral questions.

The skill test must be booked and paid for using the CAA on-line form [SRG2153](#). Subsequent IR revalidations and renewals may be by an IRE or IRR (Instrument rating renewal examiner). See the later chapter.

Application:

When applying on the basis of a Third country ICAO licence conversion, the pilot will need to provide:

- On-line form [SRG 2142](#) (Verification of a third country ICAO licence and or TK examination results)
- A certified copy of the third country ICAO licence, validating medical certificate and certificate of revalidation. If the ICAO licence does not show the validity dates of ratings, submit certified copies of logbook pages showing the rating validity and test dates.

Validity

The validity period of an IR (however gained) is 12 months plus the remainder of the month of test.

Competency Based Modular Instrument Rating (CBM-IR)

Pre-Entry Requirements

The applicant for a CBM-IR must have:

- A PPL(A) with FRTOL or a CPL(A)
- An appropriate medical certificate (Class 1 or 2 as needed).
- The class or type rating for the aircraft on which training is to be undertaken, eg SEP (land) or MEP (land).
- At least 80 hours of theoretical knowledge instruction for IR(A) at an ATO.
- Passed at least the IR theoretical knowledge examinations in accordance with FCL.615 IR.
- The instrument flight instruction and the IR(A) skill test shall be completed within the period of validity (36 months) of the pass of the theoretical knowledge examinations in accordance with FCL.025.
- To determine the number of hours credited, and to establish the training needs, the candidate shall complete a pre-entry assessment (AMC7, Appendix 6 to Commission Regulation (EU) No 1178/2011) at an ATO. The content and duration of the pre-entry assessment shall be determined by the ATO based on the prior instrument experience of the candidate (see note).
- **Note:** Refer to CAP 804 and Appendix 6 to Commission Regulation (EU) No 1178/2011 for credits.

CBM-IR COURSE PRE-ENTRY CHECKLIST

Hold PPL(A) with FRTOL or CPL(A)	Type:	
Hold Relevant current aircraft class rating?	Expiry:	
Hold current Medical Certificate?	Expiry:	
Passed IR or ATPL TK Exams	Expiry:	
Previous Instrument Instruction (up to 15 with IMC Rating only instructor)	Hours:	
P1 IFR Experience?	IFR:	

Ground Training

An approved competency-based modular IR(A) course shall comprise at least 80 hours of theoretical knowledge instruction. The theoretical knowledge course may contain computer-based training and e-learning elements. A minimum amount of classroom teaching as required by ORA.ATO.305 has to be provided (not be less than 10% of the total duration of the course).

Pass the following theoretical knowledge examinations:

Air Law Aircraft General Knowledge – Instrumentation Flight Planning and Monitoring Human Performance
Meteorology Radio Navigation Communications

A pass in a theoretical knowledge examination paper will be awarded to a candidate achieving at least 75% of the marks allocated to that paper. There is no penalty marking. After successful completion of the theoretical knowledge examinations, they will be valid for the issue of a IR(A) for a period of 36 months.

Flight Training

PRE-ENTRY ASSESSMENT: The applicant for a CBM-IR shall undergo a pre-entry assessment. The content and duration of the pre-entry assessment shall be determined by the ATO based on the prior instrument experience of the applicant.

NOTE: The term 'instrument flight time under instruction' in Part FCL terminology refers to that time by which the pilot controls the aircraft by sole reference to the instruments. That is, time under the hood only, not chock to chock.

Please note that there is no credit for UK Military pilots for the CBM-IR modular route at present, and therefore only the credits agreed in the Military Accreditation Scheme (MAS) apply for the issue of an IR.

The applicant for a CBM-IR must have completed at least the following:

Single-Engine CBM-IR

- Minimum 40 hours total instrument instruction* time (some may be in an approved simulator). A max of 30 hours prior instrument instruction* or PIC IFR time may be counted towards this 40 hr total if the applicant holds/held a suitable rating (ie IMCR or foreign IR)
- Minimum 10 hours instrument instruction* time in an aeroplane at an ATO.
- Minimum 25 hours dual instrument instruction* as a minimum.

Multi-Engine CBM-IR

- Minimum 45 hours total instrument instruction time* (some may be in an approved simulator). Also a max of 35 hours prior instrument instruction* or PIC IFR time may be counted towards this 45 hr total if the applicant holds/held a suitable rating (ie IRR or foreign IR)
- Minimum 10 hours instrument instruction* time in an aeroplane at an ATO.
- Minimum 25 hours dual instrument instruction* as a minimum of which at least 15 hours must be in a multi-engined aeroplane.
- A pilot who holds a SE IR needs a minimum of 5 hrs multi-engine instrument training.

***Note:** Only a maximum of 15 hours prior instruction by instructors limited to teach for the IMC Rating only, may be counted towards a competency based IR.

Note: The completion of any such instrument flight instruction shall be documented in a specific training record and signed by the instructor.

NB: If the student has passed only the **CB-IR(A) theoretical knowledge exams**, he will be granted an IR(A) on his licence with a restriction - he will not be certified to exercise IR privileges on single-pilot high-performance aircraft. If he has passed the **full IR(A) or ATPL(A) theoretical knowledge exams**, he will be granted an IR on his licence with no restrictions and will, therefore, hold a full single-pilot multi/single-engine instrument rating.

NOTE: The minimum hours requirements is for instrument time under instruction as specified in **CAP 804**. As such this can not include any taxi time in either the simulator or aircraft. Only instruction time by sole reference to instruments is to be used.

Single engine IR to Multi-engine IR Upgrade

A course of at least 5 hours instruction in instrument flying in multi engine aeroplanes, of which up to 3 hours may be in a FFS or FNPT II. The IR test is then considered an Initial IR test and must be booked with the CAA and paid for on-line.

Instrument Rating (Aeroplane) Skill Test

The initial IR Skill test is conducted by an Instrument Rating Examiner (IRE) nominated by the CAA. The skill test must be booked and paid for using the CAA on-line form [SRG2153](#). Subsequent IR revalidations and renewals may be by an IRE or IRR (Instrument rating renewal examiner). See the later chapter.

Application

Once the skill test is passed, the rating must be applied for via [SRG1161](#). For the CBM-IR it can be awkward working out which hours to put in which box, since the form is really designed for the modular IR.

10a.FLYING CREDITS (For applicants for CB IR Only)	To be completed by the ATO
The applicant has received a reduced course of instrument training as they hold the following credits (complete as applicable)	
Instrument Flight Time Pu/t = FI with IR instructor privileges 6(a)(i) (A) + FI without IR instructor privileges 6(a)(ii). Credit ≤30 hrs and must be ≥ 25hrs	
has completed <u>25</u> hours flight instruction under IFR in IMC or VMC in aeroplanes provided by an IRI/FI(A) in accordance with Commission Regulation (EU) 1178/2011 as amended, Annex I, Appendix 6, Section Aa, 6(a)	
or	Instrument Flight Time Pu/t = FI without IR instructor privileges 6(a)(ii). Credit ≤15 hrs
has completed <u>15</u> hours instruction under IFR on aeroplanes as referred in (6)(a)(ii) & (6)(b)(ii)	In the current SRG 1161 Issue 07, July 2014 this is marked (6)(e)(ii) it should be marked (6)(a)(ii)
or	Any other Instrument Flight Time Pu/t
has completed <u>0</u> hours instrument flight instruction in aeroplanes other than specified above	In the current SRG 1161 Issue 07, July 2014 this is marked "under IFR as PIC and it should say "instruction under IFR"
or	Instrument Flight Time PIC/P1 = 6(a)(i)(B) NOTE: credit for 6(a)(i)(A) + 6(a)(i)(B) ≤30hrs
has flown <u>10</u> hours flight time under IFR as PIC on aeroplanes	
and (multi-engine IR only)	
has completed <u>0</u> dual instruction in a multi-engine aeroplane	
Night Rating held: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
PLEASE REFER TO FALSE REPRESENTATION STATEMENT ON PAGE 1	

Validity

The validity period of an IR (however gained) is 12 months plus the remainder of the month of test.

Revalidation

An IR(A) may be revalidated within the 3 months immediately preceding the expiry date of the rating without losing the original expiry date.. If candidates choose to fulfil the revalidation requirements earlier than prescribed above, the new validity period shall commence from the date of the IR(A) proficiency check extended to the end of the month plus rating validity period.

The applicant must hold the relevant class or type rating, unless the IR(A) revalidation is combined with the renewal/revalidation of the relevant class or type rating.

Candidates who fail to pass the IR(A) proficiency check before the expiry date of the IR shall not exercise the IR(A) privileges until they have passed the IR(A) proficiency check.

An FNPT II or full flight simulator representing the relevant class or type of aeroplane may be used to revalidate an IR(A) as a stand-alone event, i.e. when not combined with a class or type rating. Class ratings for single pilot aeroplanes cannot be renewed or revalidated in a simulator.

At least each alternate IR(A) proficiency check shall be performed in an aeroplane.

The initial IR Skill test is conducted by an Instrument Rating Examiner (IRE) nominated by the CAA. Subsequent IR renewals and revalidations may be by an IRE or IRR (Instrument Rating Renewal examiner). The applicant may choose his own examiner.

An IR(A) may be revalidated as part of a combined type rating skill test or proficiency check in an appropriately qualified full flight simulator. This is usually for airliners and high performance aircraft since Class ratings for single pilot aeroplanes cannot be renewed or revalidated in a simulator.

An IR may be revalidated as part of a combined class rating skill test or proficiency check in an aeroplane. E.g. MEP/IR combined test.

Renewal

If an IR has expired, in order to renew their privileges candidates shall:

- Go through refresher training at an ATO to reach the level of proficiency needed to pass IR test. This will require the issue of a Course Completion Certificate ([SRG1107](#)) which may state that no training is required.
- Complete an IR proficiency check in the relevant aircraft category with an IRE or IRR Examiner.
- Hold the relevant class or type rating, unless the IR renewal is combined with the renewal of the relevant class or type rating.
- IR renewals may be by an IRE or IRR (Instrument rating renewal examiner). The applicant may choose his examiner.

An IR may be renewed as part of a combined type rating skill test or proficiency check in an appropriately qualified full flight simulator. This is usually for airliners and high performance aircraft since Class ratings for single pilot aeroplanes cannot be renewed or revalidated in a simulator.

An IR may be renewed as part of a combined class rating skill test or proficiency check in an aeroplane. E.g. MEP/IR combined test.

7 Year Expiry Period

If the IR has not been revalidated or renewed within the preceding 7 years, the holder will be required to pass again the IR theoretical knowledge exams and the skill test. The 7 year period commences from the date the IR expired (see note).

Note: The IR expiry date refers to any type of IR (SPA or MPA) held by a pilot on an ICAO pilot licence e.g. Hong Kong CPL(A) with A330/IR or helicopter IR. Providing the pilot keeps this licence and rating valid the 7 year period is kept at bay. If however the A330/IR expires the 7 year period would commence from that expiry date.

Privileges

The privileges of a holder of an IR(A) are to fly aircraft under IFR, including PBN operations, with a minimum decision height of no less than 200 feet (60 m).

Holders of an IR(A) shall exercise their privileges in accordance with the conditions established in Appendix 8 to Commission Regulation (EU) No 1178/2011.

If an IR holder does not hold a night qualification, then the IR will be issued and restricted to day use only:

XII	Ratings, certificates and privileges	
Class/Type/IR	Remarks and Restrictions	
Instrument	CB IR/Day only/SE Only	
IR(Restricted)	Restricted to the privileges of the Instrument Meteorological Conditions Rating specified in the United Kingdom Air Navigation Order	
SEP (land)	No Remark	
No Further Entries		
Instructors	Remarks and Restrictions	
No Entries		
Examiners		
No Entries		

NB: If the student has passed only the CB-IR(A) theoretical knowledge exams, he will be granted an IR(A) on his licence with a restriction - CB-IR (as shown above). He will not be certified to exercise IR privileges on single-pilot high-performance aircraft. If he has passed the full IR(A) or ATPL(A) theoretical knowledge exams, he will be granted an IR on his licence with no restrictions and will, therefore, hold a full single-pilot multi/single-engine instrument rating.

Discussion Topics

For guidance during training and assessment

- IFR & VFR Regulations – IFR Rules
- Choice of approach charts – UK CAA, NavBlue, Jeppesen
- Aerodrome Operating Minima inc visibility – Take-Off Minima, Take-Off Alternate, Approach Ban, OCH, MDA, Vis minima/RVR, Lighting failures, approved autopilot. Factored RVR,
- Filing of flight plans – ICAO form, Internet interfaces
- Pre-departure IFR clearances – Expected format
- SIDs & STARs – Chart study
- MSAs – MSA, Local MSA, MEA, MOCA, TAA. Temp correction.
- En-Route Charts – Choice of vendor. Routings
- PANS-OPS – IAC rules
- Holding – Detailed study
- Procedure Turns – 45 degree.
- ILS Approaches
- LOC Approaches
- VOR & VOR/DME Approaches
- NDB & NDB/DME Approaches
- RNP Approaches (3D & 2D) – SBAS, Temperature correction,
- SRA Approaches - RT
- PAR Approaches - RT
- VDF Approaches
- DME Arc Procedures
- Go-Around & Missed Approach
- Limited Panel Ops – General handling, timed compass turns
- Unusual Attitudes – Full and limited panel
- Circling Approaches – Minima, missed approach
- CDFA & Non-CDFA Profiles – Calc of profile, visibility penalty

Modular Instrument Rating

IR(A) — Modular flying training course (From CAP 804)

GENERAL

The aim of the IR(A) modular flying training course is to train pilots to the level of proficiency necessary to operate aeroplanes under IFR and in IMC. The course consists of two modules, which may be taken separately or combined:

(a) Basic Instrument Flight Module (BIFM)

This comprises 10 hours of instrument time under instruction, of which up to 5 hours can be instrument ground time in a BITD, FNPT I or II, or an FFS. Upon completion of the Basic Instrument Flight Module, the candidate shall be issued a Course Completion Certificate (**BIFM certificate**).

(b) Procedural Instrument Flight Module

This comprises the remainder of the training syllabus for the IR(A), 40 hours single engine or 45 hours multi-engine instrument time under instruction, and the theoretical knowledge course for the IR(A).

An applicant for a modular IR(A) course shall be the holder of a PPL(A) or a CPL(A).

An applicant for the Procedural Instrument Flight Module, who does not hold a CPL(A), shall hold a Course Completion Certificate for the BIFM.

The ATO shall ensure that the applicant for a multi-engine IR(A) course who has not held a multi-engine aeroplane class or type rating has received the multi-engine training specified in Subpart H prior to commencing the flight training for the IR(A) course.

An applicant wishing to undertake the Procedural Instrument Flight Module of a modular IR(A) course shall be required to complete all the instructional stages in one continuous approved course of training. Prior to commencing the Procedural Instrument Flight Module, the ATO shall ensure the competence of the applicant in basic instrument flying skills. Refresher training shall be given as required.

The course of theoretical instruction shall be completed within 18 months.

The Procedural Instrument Flight Module and the skill test shall be completed within the period of validity of the pass in theoretical examinations.

The course shall comprise:

- (a) theoretical knowledge instruction to the IR knowledge level;
- (b) instrument flight instruction.

THEORETICAL KNOWLEDGE

An approved modular IR(A) course shall comprise at least 150 hours of theoretical knowledge instruction.

FLYING TRAINING

A single-engine IR(A) course shall comprise at least 50 hours instrument time under instruction of which up to 20 hours may be instrument ground time in an FNPT I, or up to 35 hours in an FFS or FNPT II. A maximum of 10 hours of FNPT II or an FFS instrument ground time may be conducted in an FNPT I.

A multi-engine IR(A) course shall comprise at least 55 hours instrument time under instruction, of which up to 25 hours may be instrument ground time in an FNPT I, or up to 40 hours in an FFS or FNPT II. A maximum of 10 hours of FNPT II or an FFS instrument ground time may be conducted in an FNPT I. The remaining instrument flight instruction shall include at least 15 hours in multi-engine aeroplanes.

NOTES:

The holder of a single-engine IR(A) who also holds a multi-engine class or type rating wishing to obtain a multi-engine IR(A) for the first time shall complete a course at an ATO of at least 5 hrs instruction in instrument flying in multi-engine aeroplanes, of which 3 hrs may be in an FFS or FNPT II.

The holder of a CPL(A) or of a Course Completion Certificate for the **Basic Instrument Flight Module** may have the total amount of training required in paragraphs 7 or 8 above reduced by 10 hours.

The holder of an IR(H) may have the total amount of training required in paragraphs 7 or 8 above reduced to 10 hours. The total instrument flight instruction in aeroplane shall comply with paragraph 7 or 8, as appropriate.

The flying exercises up to the IR(A) skill test shall comprise:

(a) Basic Instrument Flight Module: Procedure and manoeuvre for basic instrument flight covering at least:

basic instrument flight without external visual cues: horizontal flight, climbing, descent, turns in level flight, climbing, descent; instrument pattern; steep turn; radio navigation; recovery from unusual attitudes; limited panel; recognition and recovery from incipient & full stalls;

(b) Procedural Instrument Flight Module:

(i) pre-flight procedures for IFR flights, including the use of the flight manual and appropriate air traffic services documents in the preparation of an IFR flight plan;

(ii) procedure and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least:

- transition from visual to instrument flight on take-off,
- standard instrument departures and arrivals,
- en-route IFR procedures,
- holding procedures,

- instrument approaches to specified minima,
- missed approach procedures,
- landings from instrument approaches, including circling;

(iii) in-flight manoeuvres and particular flight characteristics;

(iv) if required, operation of a multi-engine aeroplane in the above exercises, including operation of the aeroplane solely by reference to instruments with one engine simulated inoperative and engine shutdown and restart (the latter exercise to be carried out at a safe altitude unless carried out in an FFS or FNPT II).

IR AIR EXERCISES

IRI Air Exercise 1 Duration: (minimum 30 minutes depending on applicant's experience).

Basic Instrument Flying – Full Panel

AIM: To learn how to fly the aircraft safely on instruments.

TEM: Ground Instrument Checks, Hood usage, Icing Checks, MSA, Disorientation.

Airex: Pre-flight instrument checks: Carry out the pre-flight instrument checks from the checklist.

Demo of Disorientation/Physiological Sensations

a) Straight and level. b) Student closes eyes and lowers head. c) Lower one wing and then raise the nose whilst positively rolling level. No power change. d) Student identifies turn in direction of wing first lowered. e) Repeat (a) and (b). f) Enter medium turn positively, g) Maintain positive back pressure, h) Reverse the turn gently, i) Student identifies - climbing turn in initial direction.

Pitch indications

a) Visual straight and level - Indication on AI

b) Changes of attitude (visual) - Indications on AI, Use of attitude bar or degrees of pitch on AI

c) Visual turn - Bank angle on AI, Attitude indication AI.

Yaw indications

a) Straight and level - Visual and AI

b) Increase power - AI - wings level, Compass/heading indicator changing, Balance indicator yaw, Correction - balance - AI - heading indication - AI

c) Decrease power – as above.

Performance instruments

a) Altimeter - Setting procedure, Anticipation when changing altitude.

b) Air Speed Indicator ASI – Lag, Need to settle attitude before checking

c) Vertical speed indicator (VSI) – Lag, Reversal large attitude changes, Generally undamped, Time taken to stabilise after attitude change.

Straight climb and descents

a) Climb - Power - full throttle, Attitude – AI, Yaw – Balance Ball – AI, DI – AI, ASI - AI – VSI, AI - adjust and hold, Repeat.

b) Descents - Power - approach/low setting, as above.

c) Levelling - Anticipation (altimeter), Attitude – (hold), Power - cruise (approximate), AI (check), ALT – VSI, Repeat, ALT – VSI.

Turning flight

a) Level turns - Bank angle – AI, Balance Ball, Pitch attitude – AI, ALT -AI -VSI, Adjust & hold – AI, Balance Ball - AI - ALT - VSI.

b) Recovery - Level attitude – AI, Balance indicator, Altimeter, Adjust and hold – AI, Altimeter - AI – VSI, AI.

Specific Performance

a) All instruments – Power, Attitudes - select & hold, Performance Instruments: ASI, VSI, altimeter, Adjust attitude power, Re-check performance

b) Selected instruments - Cover selected instruments - student sets up desired power/attitude. Check when aircraft stabilised.

c) Changed configuration - As above but extending flaps and undercarriage.

IR Air Exercise 2

Instrument Flying, Abnormal (Limited Panel) Operation

AIM: To learn how to fly the aircraft safely on instruments in the event of failure of the Attitude and Heading Indicators.

TEM: Ground Instrument Checks, Hood usage, Icing Checks, MSA, Disorientation.

General Notes

Limited panel instrument flying should be introduced early in the instrument training phase of the course and should be practised concurrently with full panel training. In this way the students' general level of instrument flying competence and the confidence is increased and the exercise does not assume an importance out of proportion to its difficulty.

Since in this exercise the aircraft is controlled by reference to the performance instruments (the control instruments being assumed to have malfunctioned) it is important that the student is aware of the limitations and possible erroneous indications of the performance instruments as demonstrated in the previous Exercise.

Before Flight

Preparatory Instruction - Long briefing 3.

Pre-flight Briefing

The briefing should include the following: a) Airmanship/TEM considerations, b) Summary of the points to be learned, c) Weather and ATC information & d) Flight profile.

During Flight

Attitude Interpretation using the Performance Instruments

- a) Revision of characteristics and behaviour of the performance instruments (see para 19A.1.5); indirect indications of attitude: the accuracy of which can only be assessed when the performance has stabilised; control technique of change attitude, check movement, hold steady until performance has stabilised: assess attitude error, repeat as necessary; importance of trim.
- b) Pitch attitude interpreted indirectly from the performance instruments by using knowledge of the performance that should result from a given power setting if the attitude were correct; correct power + correct performance correct attitude.
- c) Bank attitude interpreted by direct reference to the turn co-ordinator and, provided the flight is balanced, rate of turn is translated into angle of bank.
- d) Balance is maintained in the normal manner by direct reference to the heading from the magnetic compass only when in straight flight, wings level and IAS steady.

Modified Scanning Technique

Selective scanning technique using the Turn Indicator or turn co-ordinator for detecting yaw either because the rudder is not balanced or because the wings are not level. Combination of altimeter, VSI and airspeed for the indirect interpretation of pitch attitude. Basic scanning patterns and the combination of instruments to use during level flight, climbing, descending and turning.

Level Flight, Climbing and Descending

Practice exercises combining the techniques in paras above; method of maintaining heading; technique for changing from one performance requirement to another e.g. level, climb and descent.

Changing Speed and Configuration: Exercise to practise instrument scan and co-ordination of controls.

Compass/Timed Turns: Both types of turn at standard rate onto specified headings; correction of residual errors after completion of initial turn.

Unusual attitude recoveries: Practice visually, full panel and limited panel recoveries. Remember the order of recovery: Power – Roll – Pitch.

Steep turns

- a) Full panel – entry. (i) Gentle application of bank - balance – power. (ii) Attitude and bank angle – AI. (iii) Height - altimeter, VSI
- b) Full panel – recovery. (i) Gentle roll out - AI - balance – power. (ii) Att for level flight - AI, balance, heading indicator. (iii) Ht check - altimeter, VSI
- c) Partial panel – entry. (i) Gentle application of bank - turn indicator – balance. (ii) Power increased on entry. (iii) Turn indicator to maintain bank
- d) Partial panel – recovery. (i) Level wings - turn indicator. (ii) Balance - power reduced. (iii) Height check - altimeter – VSI.

Approach to the stall

Recoveries from level flight and other attitudes and conditions:-

- a) Instrument indications of approaching stall: (i) Low airspeed, (ii) Loss of height, (iii) Stall warning
- b) Recovery - full panel: (i) Attitude selection – AI, (ii) Power – full, (iii) Direction - heading indicator, (iv) Balance.
- c) Recovery - partial panel: (i) Attitude for level flight - ASI - ALT – VSI, (ii) Power – full, (iii) Level wings - TC, (iv) Balance, (v) Level flight, VSI.

Note: Excessive attitude corrections can cause VSI reversal.

Straight Dive

- a) Recovery – visual: (i) Power reduced, (ii) Check wings level, (iii) Return to level flight.

Notes:

- Airspeed will continue to increase until aircraft is level when it will check.
- Unless wings are level, application of pitch up will cause turn indicator to show exaggerated turn.
- VSI will show reverse indications on initial pitch up and selection of level attitude.

- b) Recovery full panel : (i) Power reduced, (ii) Check wings level – AI, (iii) Select level attitude, VSI, (iv) Check level, Altimeter, VSI, (v) Check direction AI, heading indicator
- c) Recovery limited panel: (i) Power reduced, (ii) Wings level - turn indicator, balance, (iii) Pitch up until airspeed checks - hold - ignore turn indicator during pitch, (iv) Lateral level - turn indicator, balance, (v) Level attitude - altimeter, ASI, VSI, (vi) Direction - balance, turn indicator, (vii) Adjust as necessary.

Spiral Dive

- a) Recovery – visual: (i) Wings must be levelled before pitch up or spiral tightens.
- b) Recovery full panel: (i) Pwr reduced, (ii) Wings level – AI, (iii) Select level att, VSI, (iv) Check level, Altimeter, VSI, (v) Check direction AI, DI.
- c) Recovery partial panel: (i) Pwr reduced, (ii) Wings level - turn indicator avoid back pressure – balance, (iii) Pitch up until airspeed checks - hold - ignore DI during pitch, (iv) Lateral level - turn indicator, balance, (v) Level atti - altimeter, ASI, VSI, (vi) Direction - balance, turn indicator, (vii) Adjust as necessary.

IR Air Exercise 3 (Optional For FI/IRI Course)

AIM: To learn how to fly the take-off transition to instrument flight, and to fly precision in-flight manoeuvres.

Airmanship: Pre-flight instrument checks - checklist.

Visual take-off into Instrument climb

- a) Gentle turn on to runway,
- b) Line-up checks - heading, instruments, warning flags away,
- c) Normal visual take-off,
- d) Rotate - transfer to instruments,
- e) Attitude – AI,
- f) Positive climb - AI, altimeter, VSI,
- g) Established climb AI, altimeter, AI, heading indicator AI,
- h) After take-off checks - monitor climb,
- j) Normal climb - selective scan.

Precision manoeuvres

Various manoeuvres as directed by the instructor to include:

- a) Climbing & descending at given speeds and rates of descent,
- b) Turning.
- c) Level flight at increased and reduced airspeed and in changed configuration.
- d) Procedural descents levelling at given heights
- e) Simulated glide path descents with small heading changes
- f) Instrument circuits, approaches and go arounds
- g) Approach & After take-off checks as appropriate.

IR Air Exercise 4: Instrument Flying: Applied

Aim: To learn how to fly procedural instrument flying

General Notes

- This phase of the instrument flying training introduces all the procedural flying which the student will meet in subsequent commercial operations. It also equips the student with the necessary skills to pass the CAA IMC Rating Test or Instrument Rating Test.
- It is assumed that the student has achieved a satisfactory standard of instrument flying before any procedures are introduced. The instructor should always be prepared to revise basic IF techniques if problems are encountered.

Radio Instrument Tracking

Accurate radio instrument tracking forms the basis of all procedural instrument flying so time spent in thoroughly learning this aspect of instrument flying will be invaluable to the student. The aim must be to start the student off with very basic rule of thumb procedures building up to a mental picture of the position of the aircraft in relation to the radio facility.

The trainee instructor should understand and be able to teach the concept of **Max Drift**.

IR Air Exercise 4A: Instrument Departure, VOR, ADF & GNSS (Duration: 1 hour)

Airmanship: Pre-flight check of all flight instruments and radio navigation equipment using checklists.

Instrument Departure: Radio Instrument Tracking: VOR, ADF & GNSS

- | | |
|---|---|
| a) Navaid tuning and identification. DOC from AIP | g) Assessment of wind direction |
| b) Interception angle – range | h) Avoidance of ADF/VOR Needle chasing and homing |
| c) Effect of wind | i) ADF Needle dip |
| d) Scan pattern | j) Navaid station passage |
| e) Maintaining track - needle indication | k) Loading & Checking of RNAV SIDs |
| f) Calculation of magnetic heading (RBI) | l) Tracking RNAV SIDs |

IR Air Exercise 4B Holding, ILS & Missed Approach (Duration 1.5 hours)

Holding procedures

Hold Joining

- a) Assess entry sector – use aircraft heading
- b) Assess wind effect
- c) Assess drift
- d) Assess head/tail component
- e) Beacon passage - turn, time, talk

Hold Timing:

- a) Overhead abeam, wings level whichever latest,
- b) QDR 1 minute +/- 1 sec per knot head/tailwind.

Hold Tracking:

- a) Inbound turn Rate 1 (Bank indicator or TC)
- b) Outbound leg 3 times drift (2 times wind within 60° of wind)
- c) Check gate on outbound leg
- d) Inbound turn
- e) Intercept inbound QDM - single drift.

Subsequent holds:

- a) Timing errors - divide by 2 and apply outbound,
- b) Tracking errors - adjust drift outbound.

Instrument Landing System (ILS)

Localiser (LOC):

- | | |
|---|---|
| a) Check tuning & ident of ILS | h) R/T phraseology |
| b) Approach chart selection & interpretation | i) Final checks |
| c) Calculate Decision Height/Attitude or use chart minima | j) Scan pattern |
| d) Calculate drift as applicable | k) Track adjustments on the ILS - small corrections |
| e) Calculate timing from marker to threshold or as reqd | l) Scan pattern |
| f) Use of heading bug | m) Final Approach Point (FAP) Time - Track - R/T call |
| g) Localiser intercept angle - LOC active - turn on | n) Time elapsed - missed approach or land |

Glideslope (G/S):

- a) Calculate rate of descent - use chart or GS readout
- d) LOC established. Consider configuration change
- c) G/P + 1 dot prepare for descent
- d) G/S central - configuration - attitude for descent
- e) Know target rate of descent
- f) Scan pattern
- g) Final checks

- h) Maintain G/S - small pitch attitude changes
- i) Airspeed - power as required
- j) FAP/SDF - Check height/altitude - Maintain G/S - R/T call
- k) DH/A + 50 feet - prepare for missed approach
- l) DH/A visual - maintain attitude - final checks – land
- m) DH/A - no visual - missed approach

Missed Approach:

- a) Full Power (or as required)
- b) Level wings
- c) Select Climbing attitude
- d) Configuration changes as needed

- e) Maintain track or turn as required
- f) Settled in climb - R/T call
- g) Follow chart
- h) After take-off checks

IR Air Exercise 4c NDB/VOR/RNP Approaches Duration 1.5 hours

NDB or VOR Approach

- (a) Check Navaid tuning, Ident & setup
- (b) Approach chart selection and interpretation
- (c) Calculation of DA/MDA
- (d) Calculation of drift
- (e) Calculation of timing if required
- (f) Interception of FAT $\pm 5^\circ$ at published altitude
- (g) Maintenance of track. Scan procedure. Configuration changes
- (h) Descent with procedure
- (h) R/T calls as required – checklist actions
- (j) Check altitudes against chart
- (k) Beacon passage (if applicable)
- (L) Lateral and vertical profile maintenance
- (I) Approach to DA/MDA
- (m) Missed Approach Point (MAP) - land or go-around
- (n) Visual - land/circle
- (o) Non visual - Missed Approach.

2D RNP Approach

- (a) Load & check procedure
- (b) Approach chart selection and interpretation
- (c) Calculation of DA/MDA
- (d) Calculation of drift
- (e) Calculation of timing if required
- (f) Interception of FAT $\pm 5^\circ$ at published altitude
- (g) Maintenance of track. Scan procedure. Configuration changes
- (h) Descent with procedure
- (h) R/T calls as required – checklist actions
- (j) Check altitudes against chart distance every mile or as published
- (k) Approach Status Annunciation by FAF – Announce 'LNAV' etc
- (L) Lateral and vertical profile maintenance
- (I) Approach to DA/MDA
- (m) Missed Approach Point (MAP) - land or go-around
- (n) Visual - land/circle
- (o) Non visual - Missed Approach. SUSP

3D RNP Approach

- (a) Load & check procedure
- (b) Approach chart selection and interpretation
- (c) Calculation of DA
- (d) Calculation of drift
- (e) Calculation of timing if required
- (f) Interception of FAT $\pm 5^\circ$ at published altitude
- (g) Maintenance of track. Scan procedure. Configuration changes
- (h) Intercept Glidepath using Vertical Deviation Indicator
- (h) R/T calls as required – checklist actions
- (j) Check altitude against chart at FAF
- (k) Approach Status Annunciation by FAF – Announce 'LPV' etc
- (L) Lateral and vertical profile maintenance
- (I) Approach to DA
- (m) Missed Approach Point (MAP) - land or go-around
- (n) Visual - land/circle
- (o) Non visual - Missed Approach. SUSP

Instrument Rating (Aeroplane) Skill Test

The IR(A) skill test is the same whether the training was modular or via the CB-IR/CBM-IR.

The initial IR Skill test is conducted by an Instrument Rating Examiner (IRE). The examiner will be assigned by the CAA. Subsequent IR renewals may be by an IRE or IRR (Instrument rating renewal examiner).

For full details see **CAA Standards Document 1**. The IR(A) skill test comprises of the following sections:

Section 1 - Pre-Flight Operations and Departure

Use of flight manual (or equivalent) especially aircraft performance calculation, mass and balance

Use of Air Traffic Services document and weather document

Preparation of ATC flight plan and IFR flight log

Pre-flight Inspection

Weather Minima

Taxying

Pre take-off briefing, take-off

Transition to instrument flight

Instrument departure procedures, altimeter setting

ATC liaison - compliance, R/T procedures (assessed in all sections)

Section 2 - General Handling

Control of the aeroplane by reference solely to instruments, including:

Level flight at various speeds, trim

Climbing and descending turns with sustained Rate 1 turn

Recoveries from unusual attitudes, including sustained 45° bank turns and steep descending turns

Recovery from approach to stall in level flight, climbing/descending turns and in landing configuration

Limited panel: stabilised climb or descent, level turns at Rate 1 onto given headings, recovery from unusual attitudes

Section 3 - En-Route IFR Procedure

Tracking, including interception, e.g. NDB, VOR, RNAV

Use of radio aids

Level flight, control of heading, altitude and airspeed, power setting, trim technique

Altimeter settings

Timing and revision of ETAs (en-route hold, if required)

Monitoring of flight progress, flight log, fuel usage, systems' management

Ice protection procedures, simulated if necessary

Section 4 - 3D Approach Procedures

Setting and checking of navigational aids, identification of facilities
Arrival procedures, altimeter checks
Approach and landing briefing, including descent/approach/landing checks
Holding Procedure
Compliance with published approach procedure
Approach timing
Altitude, speed heading control (stabilised approach)
Go-around action
Missed approach procedure/landing

Section 5 - 2D Approach Procedures

Setting and checking of navigational aids, identification of facilities
Arrival procedures, altimeter checks
Approach and landing briefing, including descent/approach/landing checks
Holding Procedures
Compliance with published approach procedure
Approach timing
Altitude, speed heading control (stabilised approach)
Go-around action
Missed approach procedure/landing

Section 6 - Flight with One Engine Inoperative (ME only)

Simulated Engine Failure After Take Off or on go-round
Asymmetric approach and procedural go around
Asymmetric approach and full stop landing
ATC liaison - compliance, R/T procedures

Note: Use of checklist, airmanship, anti-icing/de-icing procedures, etc. apply in all sections.

RNP Approach Availability during the Initial IR Skill Test

UK Part-FCL requires that an RNP approach be flown on every instrument rating test or check. However, it is recognised that there are reasons that may preclude this from happening, for example:

- ♣ Onboard equipment unserviceability;
- ♣ RAIM outage or similar affecting planned destination;
- ♣ ATC contingency preventing planned approach from being flown;
- ♣ Non-availability of an RNP approach within a reasonable distance of departure airfield.

The IR skill test should normally be planned with the expectation of being able to fly an RNP approach during the test, and every effort should be made to achieve this. If, on the day, circumstances mean that an RNP approach is not available, the test may go ahead, and 2 approaches using terrestrial aids (NDB, VOR, ILS) should be flown. The **SRG 2131** should be annotated by the examiner to indicate that the test is incomplete. The IR skill test can subsequently be completed to include PBN privileges following a successful test in an SP aeroplane, FFS or FNPT2 with an IRE within 30 days of the original test, during which an RNP approach is flown to either go around or land. In this case, a new form **SRG 2131** should be completed, marked to indicate that it is for the completion of the original incomplete test and submitted to the Authority. The expiry date of the IR will be calculated from the date that the RNP approach is flown.

If 2 approaches using terrestrial aids are flown on an initial IR skill test, then consideration must be given to the consequences of a failure of one of those approaches or of the RNP approach.

♣ If one of the approaches using terrestrial aids was unsatisfactory, then the applicant has gained a partial pass. The retest could comprise an RNP approach (2D or 3D as appropriate) in order to gain PBN privileges but, in this case, it must be flown in an aeroplane. If the retest comprises a terrestrial approach, then the requirement to fly an RNP approach in an aeroplane, FSTD or FFS must also be satisfied.

♣ If the 2 approaches using terrestrial aids have been flown satisfactorily, but the subsequent RNP approach was unsatisfactory then the applicant has gained a partial pass. The retest must comprise an RNP approach and should be flown in an aeroplane unless no RNP approaches are available. If 2 sections of the initial test are failed, then the applicant moves to the Second Series. If one section of the initial test and the RNP approach are failed, then the applicant moves to the Second Series.

Any test for the initial award of PBN privileges must also comply with the requirements of CAP 2138.

Application for the IR

A new [Professional Issue Online Application form](#) for CPL, CPL IR and ATPL issue is now available to use for applicants who have not previously used the eLicensing system.

Please note that from 10th May 2021, all applications for professional licence issue must be made using eLicensing system or this online application form. The paper versions of SRG1183A/SRG1183H will no longer be accepted.

Guidance on how to apply for Professional licence issue is available on the CAA website.

Typical IR ST (SE) Flight Test Format

It is important that an instructor is familiar with the content of each test and typical test profiles to be flown during test in order to better prepare the student.

Departure:

- Pre-flight planning
- Clearances
- Airways to Cardiff. Autopilot available in cruise. Map ON.

Arrival:

- STAR into Cardiff initially flown with the autopilot available.
- Manually flown single-needle tracking to the CDF NDB with GPS & MAP inhibited.

Holding:

- Entry and 1 or 2 holds at the CDF. MAP OFF. No autopilot.

2D Approach:

- Procedural RNP approach to CDFA minima and go-around. MAP ON. No autopilot.

Diversion to Bristol

- Diversion to Bristol with or without autopilot.

3D Approach:

- Radar vectored ILS approach at Bristol to DA and go-around. Divert outside controlled airspace to Blackbushe. MAP off. No autopilot.

General Handling: (En-route to EGLK outside controlled airspace)

- **Full Panel**
 - **Stalling:**
 - Approach Configuration. Recover at first sign of approaching stall.
 - Landing Configuration. Recover at first sign of approaching stall.
- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing:

- Visual landing at Blackbushe. Applicant responsible for all aspects of flight including lookout.

Typical IR Skill Test (ME) Flight Test Format 1

Departure from EGLK:

- Pre-flight planning
- Clearances
- Airways to Cardiff. Autopilot available in cruise. Map ON

Arrival:

- STAR into Cardiff initially flown with the autopilot if desired.
- Manually flown single-needle tracking to the CDF NDB with GPS & MAP inhibited.

Holding:

- Entry and 1 or 2 holds at the CDF. Map and autopilot OFF.

3D Approach:

- Radar-vectorred ILS to minima and go-around. Map ON, autopilot OFF.
- Simulated engine failure in climb.

Diversion to Gloucester

- Diversion to Gloucester simulated asymmetric. Map and autopilot as required. Ops normal after a few minutes.
- Reset simulated asymmetric approaching Gloucester. No drills.

2D Approach:

- Procedural simulated asymmetric RNP app at Gloucester to CDFA DA and asym go-around. Map ON autopilot OFF.
- Restore failed engine in climb. Divert outside controlled airspace to Blackbushe. Map and autopilot as required.

General Handling: (En-route to EGLK outside controlled airspace)

- **Full Panel**
 - **Stalling:**
 - Approach Configuration. Recover at first sign of approaching stall.
 - Landing Configuration. Recover at first sign of approaching stall.
- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing at Blackbushe:

- Reset simulated engine failure. No drills. Applicant removes hood.
- Visual simulated asymmetric landing at Blackbushe. Applicant responsible for all aspects of flight including lookout.

Typical IR Skill Test (ME) Flight Test Format 2

Departure from EGTK:

- Pre-flight planning
- Clearances
- Airways to Gloucester. Autopilot available in cruise. Map ON

Arrival:

- Arrival into Gloucester initially flown with the autopilot if desired.
- Manually flown single-needle tracking to the GLO NDB with GPS & MAP inhibited.

Holding:

- Entry and 1 or 2 holds at the GLO. Map and autopilot OFF.

2D Approach:

- Procedural RNP approach to CDFA minima and go-around. Map on, autopilot off.
- Simulated engine failure in climb.

Diversion to Oxford

- Diversion to Oxford simulated asymmetric. Map and autopilot as required. Reset failed engine after short while.

General Handling: (En-route to EGTK outside controlled airspace)

- **Full Panel**
 - **Stalling:**
 - Approach Configuration. Recover at first sign of approaching stall.
 - Landing Configuration. Recover at first sign of approaching stall.
- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

3D Approach:

- Reset simulated engine failure. No drills.
- Radar vectored simulated asymmetric ILS approach at Oxford to DA and go-around. Map ON and autopilot off.

Landing at Oxford:

- Applicant removes hood.
- Visual simulated asymmetric landing at Oxford. Applicant responsible for all aspects of flight including lookout.

Typical IR Proficiency Check (SE) Aeroplane Flight Test Format

Departure:

- Pre-flight planning
- Clearances
- En-route outside controlled airspace to Cranfield. Autopilot and Map use up to applicant.

Arrival:

- Manually flown single-needle tracking to the CIT NDB. Autopilot and map as required.

Holding:

- Entry and 1 or 2 holds at the CIT. Autopilot and map as required.

2D Approach:

- Procedural RNP approach to CDFA minima and go-around. Autopilot and map as required.

3D Approach:

- Procedural ILS approach at Cranfield to DA and go-around. Return outside controlled airspace to Blackbushe. Autopilot and map as required.

General Handling: (En-route to EGLK outside controlled airspace)

- **Full Panel**
 - Assessed during approaches
- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing:

- Visual landing at Blackbushe. Applicant responsible for all aspects of flight including lookout.

Typical IR Proficiency Check in Aeroplane (ME) Flight Test Format

Departure:

- Pre-flight planning & Clearances
- Airways or outside controlled airspace to Cranfield. Autopilot and map as applicant requires.

Arrival:

- Manually flown single-needle tracking to the CIT NDB. Autopilot and map as required.

Holding:

- Entry and 1 or 2 holds at the CIT. Autopilot and map as required.

2D Approach:

- Procedural RNP approach to CDFA minima and go-around. Autopilot and map as required.
- Simulated engine failure in climb.

3D Approach:

- Procedural simulated asymmetric ILS approach at Cranfield to DA and asymmetric go-around. Autopilot off for ILS. Map as required.
- Divert outside controlled airspace to Blackbushe.
- Restore failed engine. Autopilot and map as required.

General Handling: (En-route to EGLK outside controlled airspace)

- **Full Panel:**
 - Assessed during approaches
- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing:

- Reset simulated engine failure. No drills.
- Visual simulated asymmetric landing at Blackbushe. Student responsible for all aspects of flight inc lookout.

IMC Rating & Instrument Rating (Restricted)

General

The IMC Rating is a UK national rating and is designed as a 'get you out of trouble' qualification and not as a replacement for the IR.

UK National CPL and ATPL licences (not Part FCL CPLs or ATPLs) contain the privileges of an IMC rating embedded within them, without the need for revalidation. These privileges can be exercised on non-Part 21 aircraft and on Part 21 aircraft (up to 2000 kg MTOW and 4 passengers (not seats)).

The IMC Rating may not be placed onto an EASA licence. However, the IMC Rating is equivalent to the IR (Restricted) or IR(R) which can be put onto an UK.Part FCL licence. Once you have obtained the IMC Rating you may apply to the UK CAA to have an IR (Restricted) endorsed on your UK.Part FCL licence.

You can complete the IMC Rating training and after a successful ground examination, flight test and application, have it added to your UK.Part FCL licence as an IR(R) – an IR(Restricted). This will have all the privileges and restrictions of an IMC Rating and will be valid for flight in both Part 21 and non-Part 21 aircraft.

The revalidation/renewal requirements of the IMC Rating shall apply to the IR (Restricted).

The use of the IMC Rating/IR (Restricted) is confined to UK airspace only. This includes The Channel Islands, Isle of Man and Northern Ireland.

The IMC Rating/IR (Restricted) cannot be put on a LAPL. Holders of an IMC Rating/IR (Restricted) who elect to regrade to a LAPL will have the IMC Rating/IR (R) removed as the LAPL is a VFR only UK licence.

The UK CAA will issue information via Skywise on the impact of the Performance Base Navigation (PBN) regulations on the UK IMC Rating/IR (Restricted). At present (Mar 2023), there is no requirement for any PBN training or approaches in the IR(R) syllabus/test, however it is recommended.

Pre-Entry Requirements

The following paragraphs detail the experience requirements for the IMC Rating:

An applicant for an IMC Rating must have:

- (a) 25 hours total experience as pilot of aeroplanes following PPL(A) issue and which may include the training for the UK IMC rating.
- (b) 10 hours as PIC of aeroplanes to include 5 hours as PIC of aeroplanes on cross country flights.
- (c) a UK issued Flight Radiotelephony Operators Licence (FRTOL).

IMCR/IRR COURSE PRE-ENTRY CHECKLIST

Hold Valid Licence with FRTOL	Type:	
Hold Relevant current aircraft class rating?	Expiry:	
Hold 25 hrs TT since licence issue (May include IMCR training)?	TT:	
Hold 10 hrs PIC(A)	PIC(A):	
Hold 5 hrs PIC(XC)	PIC(XC)	

Credits

The holder of a course completion certificate for the EASA Basic Instrument Flying Module (BIFM) may have the total amount of flight training reduced by 10 hours.

IMC Rating privileges are contained within a UK national CPL(A) or ATPL(A) (this does not include a JAA or EASA licence). There is no requirement for a separate certificate of test for these licences, nor renewal or revalidation.

Holders of the AOPA (UK) Radio Navigation Certificate may have instrument flight training during the Applied Stage reduced by 5 hours.

Additional credits are available. For details refer to CAP 804 Section 5 (UK National Licences) Part E.

Ground Training

A minimum of 20 hours of theoretical knowledge training covering the following subjects:

- Physiological Factors
- Flight Instruments
- Aeronautical Information Service - NOTAMS, UK AIP, AICs
- Flight Planning - Meteorology, Altimetry, Terrain clearance, Radio aids, Radar approach procedures
- Privileges of the IMC Rating

IMC Rating Theoretical Knowledge Examination: 25 multi-choice questions covering the IMC Rating theoretical knowledge. The pass mark is 72%. The examination can be taken before or after the flight test. The examination is still in paper form and is not available on-line. The 3 written papers are now quite old and contain errors due to the fact that the rules have changed. Allowances are made for this in the marking of the test. The examination is valid for 21 months for the issue of the IMC Rating and 12 months for the conduct of the flight test.

Flight Training

Completed at least 15 hours dual instrument flying training with a suitably qualified FI or IRI (not a CRI unless he also holds an IRI). Up to 5 hours of this training may be completed in an STD device qualified BITD, FNPT I/II, up to 2 hours of which may be in other FSTDs.

At least 10 of the 15 hours must be flown by sole reference to instruments.

Where an applicant wishes to be tested for the IMC Rating on a SP ME aeroplane the flying training must ensure that when in simulated instrument flight conditions in a ME aeroplane the applicant can maintain stable flight after an engine failure at climb power, then climb at recommended speed and execute the normal range of flight manoeuvres under asymmetric power.

The flight training shall cover the following items:

Basic Stage

- Full and limited panel flight manoeuvres to include recoveries from unusual attitudes
- Partial panel flight manoeuvres

Applied Stage

- Pre-flight planning
- Departure and en-route (including navaid tracking)
- Approach and let-down
- Bad weather circuits and landings

IMC Rating Initial Skill test

Conducted by an Instrument Rating Examiner (IRE) or Flight Examiner (FE) who holds IMC Rating/IR(R) examining privileges. Only examiners who hold licences, ratings and certificates issued by the UK CAA may examine for the IMC Rating/IR(R). The CAA are now saying that the examiner should not have conducted more than 25% of the required training for the applicant, however this does not seem to be backed up in the regulations.

A pass may be gained in the course of up to 3 individual flights made during a 28 day period. Since September 2023, it is possible to gain a Partial Pass in the IMC Rating skill test or proficiency check. This will require the examiner to manually alter the **SRG 1176** until these forms can be updated. Similarly, the examiner may issue a manually altered **SRG 1100** to give temporary privileges, but only for a Part FCL licence (see below).

The flight test comprises of the following sections:

Section 1 - Full Panel Instrument Flying

- Straight and level at given speeds, turns at a given rate and onto given headings, climbing and descending including turns, recovery from unusual attitudes.

Section 2 - Limited Panel Instrument Flying (Failure of Attitude Indicator and DI)

- Straight and level flight, climbing and descending, turns onto given headings, recovery from unusual attitudes.

Section 3 - Radio Navigation Aids

- Use of radio navigation aids for position-finding using one or more aids to include VOR and ADF/NDB, maintenance of a given track based on a pilot-interpreted aid for 10 minutes.

Section 4 - Let-Down and Approach Procedures

- Let-down and approach to minima, missed approach procedure using a pilot-interpreted aid, carry out a recognised instrument approach procedure to minima, thence the appropriate go-around and missed approach procedure.

Section 5 - Bad Weather Circuits

- Bad weather circuit following Section D, position the aircraft in the circuit at the direction of the examiner, to carry out a visual bad weather circuit and landing under specified weather conditions.

Section 6 - Flight with Asymmetric Power (ME only) (see note)

- Control of the aeroplane and maintenance of a given heading and asymmetric climb speed, following the failure of one engine in the climbing configuration at normal climb power. Identification of the failed engine and the completion of all essential drills and checks. Climbing and level turns in asymmetric flight as directed by the examiner.

Note: Throughout Section 6, the examiner is responsible for navigation and ATC liaison. On resumption of normal flight the examiner will advise the applicant of the aeroplane position.

Note: As of Feb 2023, the CAA has approved the use of the **SRG 1100** – Temporary Certificate – to be used to give a pilot temporary IR(R) privileges, provided that it is to be placed on a Part FCL licence. This will require the examiner to manually amend the form. See suggested example below:

Title: <input type="text"/>		Forename: <input type="text"/>		Surname: <input type="text"/>		Date of birth: <input type="text"/>	
2. Temporary Privileges						(To be completed by the Examiner)	
I declare that the applicant has fulfilled <u>all</u> the applicable and necessary requirements to exercise temporary privileges as follows (select only item(s) applicable to this Temporary Certificate):							
Aeroplane: <input checked="" type="checkbox"/>		Helicopter: <input type="checkbox"/>		Balloon: <input type="checkbox"/>		Sailplane: <input type="checkbox"/> Airship: <input type="checkbox"/>	
Instructor Certificate - FI: <input type="checkbox"/>		CRI: <input type="checkbox"/>		IRI: <input type="checkbox"/>		TRI: <input type="checkbox"/> SFI: <input type="checkbox"/>	
Class Rating (including variants): <input type="text"/>						Land: <input type="checkbox"/> Sea: <input type="checkbox"/>	
Type Rating (including variants): <input type="text"/>							
Single Pilot: <input checked="" type="checkbox"/>		Multi Pilot: <input type="checkbox"/>		Co Pilot only: <input type="checkbox"/>		Cruise Relief Pilot: <input type="checkbox"/>	
Both (SP/MP): <input type="checkbox"/>		VFR: <input type="checkbox"/>		IFR: <input type="checkbox"/>			
Additional Ratings - Mountain Rating: <input type="checkbox"/>		En-Route Instrument Rating: <input type="checkbox"/>		Sailplane Cloud Rating: <input type="checkbox"/>			
Instrument Rating - SP SE: <input type="checkbox"/>		SP ME: <input type="checkbox"/>		MP: <input type="checkbox"/>		<input checked="" type="checkbox"/> IR(R) SE	
Additional Privileges/Restrictions/Remarks: <input type="text"/>							
3. Confirmation of Skill Test, Proficiency Check or AoC						(To be completed by the Examiner and where ZFTT/Base	

Validity

25 months plus the remainder of the month of test.

Revalidation

EITHER:

Pass a revalidation flight test prior to rating expiry. Only examiners who hold licences, ratings and certificates issued by the UK CAA may examine for the IMC Rating/IR(R).

AND

The applicant must show logbook evidence that in the period between flight tests he/she has successfully completed a let-down, approach to minima, go-around and missed approach using a different aid from that in the flight test. This must be signed by an instructor qualified to give instrument flying instruction.

OR

Carry out 2 approach procedures using different aids during the revalidation flight test.

Renewal

Where the UK IMC Rating has expired by not more than 5 years the revalidation requirements apply for renewal.

IMC Rating Revalidation/Renewal Flight Test

Conducted by an Instrument Rating Examiner (IRE) or Flight Examiner (FE) who holds IMC Rating/IR(R) examining privileges. Only examiners who hold licences, ratings and certificates issued by the UK CAA may examine for the IMC Rating/IR(R).

A pass may be gained in the course of up to 3 individual flights made during a 28 day period. Failure in any part of the test will require the candidate to take the full test again. There is no 'partial pass' for this test. The revalidation/renewal flight test will comprise Sections 2, 4 and 5 of the initial flight test. The type of approach aid used must be entered in the candidate's logbook.

A revalidation/renewal flight test which is a first multi-engine IMC rating test must include Section 6.

IMC Rating Expired by more than 5 years

Complete dual instruction as required to pass the initial IMC flight test with an examiner.

IMC Rating Expired by more than 10 years

Complete dual instruction as required to pass the initial IMC flight test with an examiner. Pass the IMC Rating theoretical knowledge examination.

Privileges

An IMC Rating/IR (Restricted) entitles the holder of the licence to act as pilot in command or co-pilot of an aeroplane flying under IFR except:

- (i) in Class A airspace or
- (ii) when the aeroplane is taking off or landing at any place if the flight visibility below cloud is less than 1,500 metres.

The holder of the IMC Rating / IR(Restricted) must not fly as pilot in command or co-pilot of an aeroplane outside the airspace of the UK in circumstances which require compliance with the IFR.

The CAA strongly recommends that IMC / IR (R) holders seek appropriate PBN training prior to attempting a RNP approach.

IMC Rating conversion to Instrument Rating (Restricted) (IR(R))

An applicant for an IR(Restricted) shall:

- (a) Hold a valid IMC rating **OR**
- (b) hold a valid UK national CPL(A)/ATPL(A) issued prior to 1 July 2000.

The requirement of Part MED.A.030(g) shall not apply to the IR(R).

Application for the UK IMC Rating/Instrument Rating (Restricted) (IR(R))

After a successful pass of the written exam and the skill test, the applicant applies to the CAA for the rating to be added to the licence.



Application for the Instrument Meteorological Conditions (IMC) or (Restricted) Instrument Rating (IR(R)) (SRG1125)

BEFORE YOU BEGIN

This form is used by the flight crew to add the IMC/IR(R) rating to their licence or to renew or revalidate their IMC/IR(R) rating.

How much will it cost me?

An initial issue of the IMC/IR(R) rating has a fee of £131.

A renewal or revalidation of the IMC/IR(R) rating has a fee of £96.

Additional [courier charges](#) may apply:-

- UK £15
- Europe £25
- Rest of the world £35

How can I get help?

You can find further guidance on our [IMC rating](#) page.

If you have any questions you can contact our licensing team:

- Email fclweb@caa.co.uk (preferred)
- Phone 0330 022 1972 (Mon - Fri 8:30 - 16:30)

Terms of Usage

Please accept our [terms of usage](#)

I ACCEPT THE TERMS OF USAGE

I REJECT THE TERMS OF USAGE

A new [online application form](#) for the initial issue, revalidation and renewal of Instrument Meteorological Conditions (IMC) ratings or Instrument Rating (Restricted) (IR(R)) ratings has been created by the CAA. This will soon replace paper (PDF) application form [SRG 1125](#).

Also, a new online Course Completion Certificate [CAA 5019](#) has been created and will need to be completed and uploaded as part of the online application.

Simply follow the online instructions and pay the fee.

There will be an 8-week transition period, during which time the CAA will continue to accept the paper application form. From 3rd June 2022, the paper version of [SRG 1125](#) will be withdrawn.

Typical IMC Rating Skill Test (SE) Flight Test Format

It is important that an instructor is familiar with the content of each test and typical test profiles to be flown during test in order to better prepare the student.

Departure:

- Pre-flight planning & Clearances
- Take-off, instrument departure and flight outside controlled airspace to Cranfield. Autopilot OFF. Map as required.

En-Route:

- Position fixing by nav aids (CPT).
- Tracking to or from a nav aid (CPT or WOD/WCO/CIT) for 10 minutes.

Arrival:

- Manually flown single-needle tracking to the CIT NDB. Autopilot OFF. Map OFF.

Holding:

- Only if required by ATC.

ILS Approach (assuming not signed off during training):

- Procedural ILS approach at Cranfield to IMC rating recommended DA and go-around. Autopilot OFF. Map OFF.
- Missed approach.

General Handling: (En-route to EGLK outside controlled airspace)

- Autopilot OFF. Map as required.
- **Full Panel:**
 - Unusual attitude recoveries.
- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates including turns.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing:

- Bad weather/low-level circuit to land at Blackbushe. Student responsible for all aspects of flight inc lookout.

Typical IMC Rating Skill Test (ME) Flight Test Format

Departure:

- Pre-flight planning & Clearances
- Take-off, instrument departure and flight outside controlled airspace to Cranfield. Autopilot OFF. Map as required.

En-Route:

- Position fixing by nav aids (CPT).
- Tracking to or from a nav aid (CPT or WOD/WCO/CIT) for 10 minutes.

Arrival:

- Manually flown single-needle tracking to the CIT NDB. Autopilot OFF. Map OFF.

Holding:

- Only if required by ATC.

ILS Approach (assuming not signed off during training):

- Procedural ILS approach at Cranfield to IMC rating recommended DA and go-around. Autopilot OFF. Map OFF.
- Missed approach.
- Simulated engine failure during missed approach. Once drills complete reset 2 engines.
- Return outside controlled airspace to Blackbushe.
- Autopilot and map as required.

General Handling: (En-route to EGLK outside controlled airspace)

- **Full Panel:**
 - Unusual attitude recoveries.
- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates including turns.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing:

- 2 engined Bad weather/low-level circuit to land at Blackbushe. Student responsible for all aspects of flight inc lookout.

Typical IMC Rating Proficiency Check (SE) Flight Test Format

Departure:

- Pre-flight planning & Clearances
- Take-off, instrument departure and flight outside controlled airspace to Cranfield. Autopilot OFF. Map as required.

En-Route:

- Autopilot and Map as required.

Arrival:

- Manually flown single-needle tracking to the CIT NDB. Autopilot OFF. Map OFF.

Holding:

- Only if required by ATC.

ILS Approach:

- Procedural ILS approach at Cranfield to IMC rating recommended DA and go-around. Autopilot OFF. Map OFF.
- Missed Approach
- Return outside controlled airspace to Blackbushe.
- Autopilot and map as required.

Second Approach (unless signed off during rating validity):

- Procedural RNP approach at Cranfield to IMC rating recommended DA/MDA and go-around. Autopilot OFF. Map ON.

General Handling: (En-route to EGLK outside controlled airspace)

- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates including turns.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing:

- Bad weather/low-level circuit to land at Blackbushe. Student responsible for all aspects of flight inc lookout.

Typical IMC Rating Proficiency Check (SE) Flight Test Format

Departure:

- Pre-flight planning & Clearances
- Take-off, instrument departure and flight outside controlled airspace to Cranfield. Autopilot OFF. Map as required.

En-Route:

- Autopilot and Map as required.

Arrival:

- Manually flown single-needle tracking to the CIT NDB. Autopilot OFF. Map OFF.

Holding:

- Only if required by ATC.

ILS Approach:

- Procedural ILS approach at Cranfield to IMC rating recommended DA and go-around. Autopilot OFF. Map OFF.
- Missed approach and return outside controlled airspace to Blackbushe.
- Autopilot and map as required.

Second Approach (unless signed off during rating validity):

- Procedural RNP approach at Cranfield to IMC rating recommended DA/MDA and go-around. Autopilot OFF. Map ON.

Asymmetric Flight:

- Only if first proficiency check in an ME aeroplane.

General Handling: (En-route to EGLK outside controlled airspace)

- **Limited Panel:**
 - S&L, level turns shortest way to hdgs, climbs and descents at given speeds/rates.
 - Unusual Attitude Recoveries: Climbing turn, spiral dive, level 45° steep turn.
- **Recover to Full Panel**

Landing:

- Bad weather/low-level circuit to land at Blackbushe. Student responsible for all aspects of flight inc lookout.

IMC Rating Course

Introduction to the IR(R)

Issue 5 07Aug22 Steve Pells

1: Why do you want an IR(R)?

- To enable me to fly in poorer weather? Or to make me a safer pilot?
- Discuss the VMC criteria as already exists, and point out the visibility criteria are identical. Discuss Aeroweather VFR/IFR symbology and rationale.
- What are the VFR? Weather minima, cruising levels SERA. UK dispensation exists.
- What are the IFR? Cruising levels, minimum height rule.

2: What is an IR(R)?

Discuss IMC Rating and IR(R). Only 4 differences between an IR and an IR(R).

- UK only
- Airspace classes permitted (No Class A)
- Visibility minima (note not DA/MDA)
- Validity – 25 months plus the remainder of the month.

Mention CB-IR.

3: Outline of the course

1. BIFM, full & partial panel.
2. VOR, NDB tracking. GNSS navigation.
3. Approaches (ILS, LOC, PAR, VOR, NDB, RNP, SRA).
4. Holding – Explain situation.
5. Unusual attitudes both full and partial panel.
6. Bad weather circuit.
7. Minimum 15 Hours training with minimum 10 hrs by sole reference to instruments.
8. Vision restricting devices. Lookout. Icing checks.

4: Format of the Test

As above, with 1 or 2 approaches. Explain the requirements.

5: Basic Radial Scan

Introduce and brief along the lines of climbing and descending. Consider turning separately. Stress important instruments in each phase:

S&L: AI, DI, VSI, (ALT to lesser degree), but NOT ASI

Climbing: AI, ASI, DI, (ALT approaching level out), but NOT VSI

Descending (including at given ROD): AI, ASI, DI, VSI, (ALT approaching level out)

Turning: AI, TC, VSI, (ALT to lesser degree), DI approaching rollout, but NOT ASI. Discuss Rate One turns inc AOB.

6: Bad Weather Circuit Brief

Assume weather conditions are VMC minima: Cloud base 600' aal, visibility 1500m.

7: Instrument Approach Charts

Purpose of IACs

Providers of charts: AIP, NavTech, Jeppesen. Advantages and disadvantages

Introduction to Minima.

8: Further Discussion Topics

For guidance during training and assessment

- IFR & VFR Regulations – What are the IFR and VFR Rules
- Choice of approach charts – UK CAA, NavBlue, Jeppesen
- Aerodrome Operating Minima including visibility – Take-Off Minima, Take-Off Alternate, Approach Ban, OCH, MDA, Visibility minima/RVR, Lighting failures, approved autopilot
- MSAs – MSA, Local MSA, MEA, MOCA, TAA. Temp correction.
- En-Route Charts – Choice of vendor. Routings
- Holding – Basic study
- Procedure Turns – 45 degree.
- ILS Approaches
- LOC Approaches
- VOR & VOR/DME Approaches
- NDB & NDB/DME Approaches
- RNP Approaches (3D & 2D) – SBAS, Temperature correction.
- SRA Approaches - RT
- PAR Approaches - RT
- VDF Approaches
- DME Arc Procedures
- Go-Around & Missed Approach
- Limited Panel Ops – General handling, timed compass turns
- Unusual Attitudes – Full and limited panel
- Circling Approaches – Minima, missed approach
- Bad Weather Circuits
- CDFA & Non-CDFA Profiles – Calc of profile, visibility penalty

IMC Rating Lesson 1: Basic Instrument Flight (BIFM) 1

Aims:

- To learn basic instrument flying, full panel.
- To learn how to fly a bad weather circuit to land.

Pre-Flight Briefing:

- Check that the student meets the pre-entry requirements.
- Intro to the IMC Rating (see briefing notes above).
- Briefing on Straight & Level, Turning, Climbing and Descending on instruments.
- Briefing on icing and MSA awareness.
- Briefing on the Bad Weather Circuit.

Board Briefing:

Ex 13d: Bad-Weather Circuit

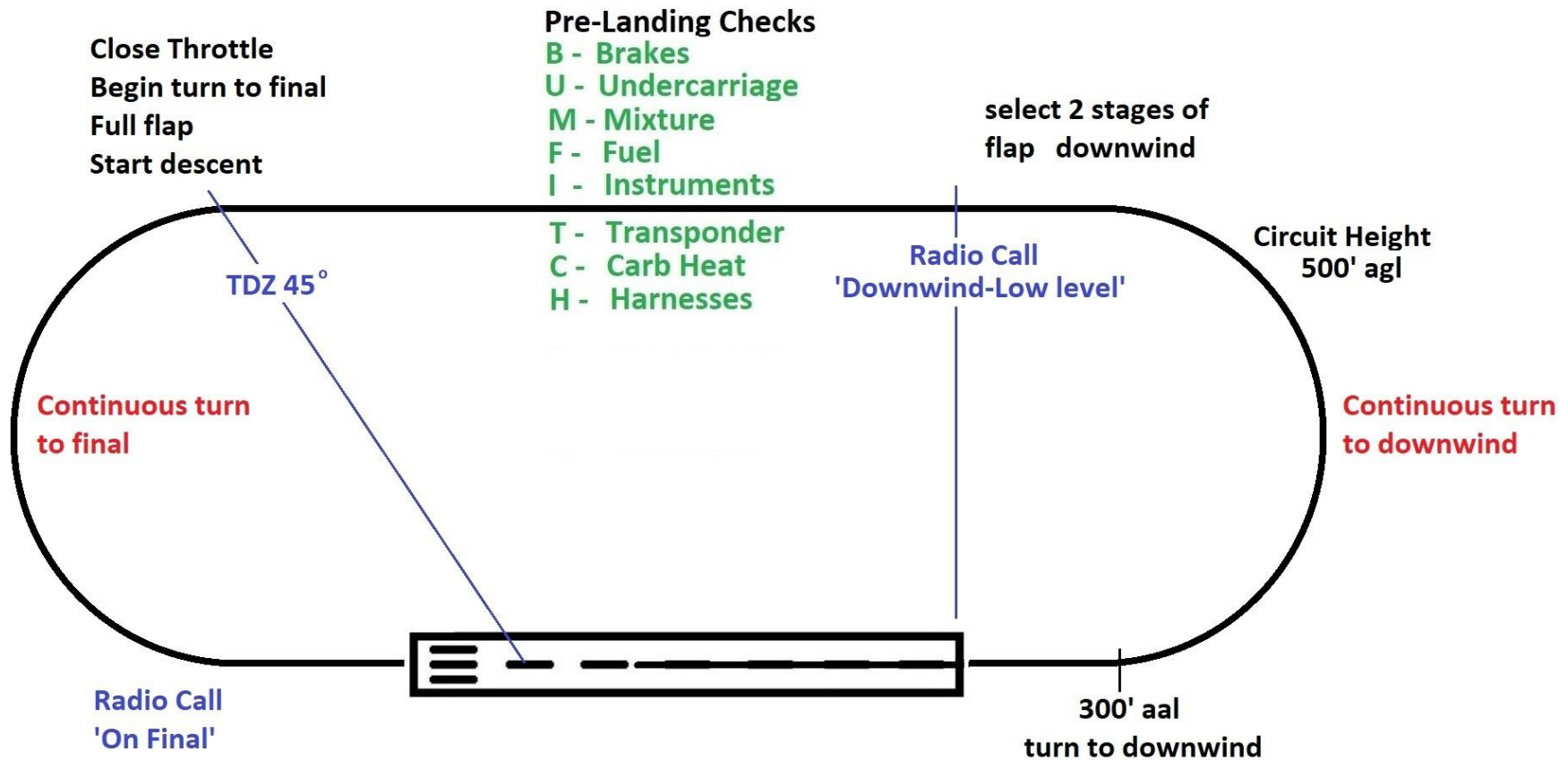
05 Mar 21

AIM: To learn to fly a bad weather circuit to land.

T&E: Circuit traffic, Terrain, Obstacles, Loss of control.

M: Lookout, MSA, Pre-flight study, Instruments, Bank angle.

Airex:



Skeleton Board Briefing:

Ex 13d: Bad-Weather Circuit

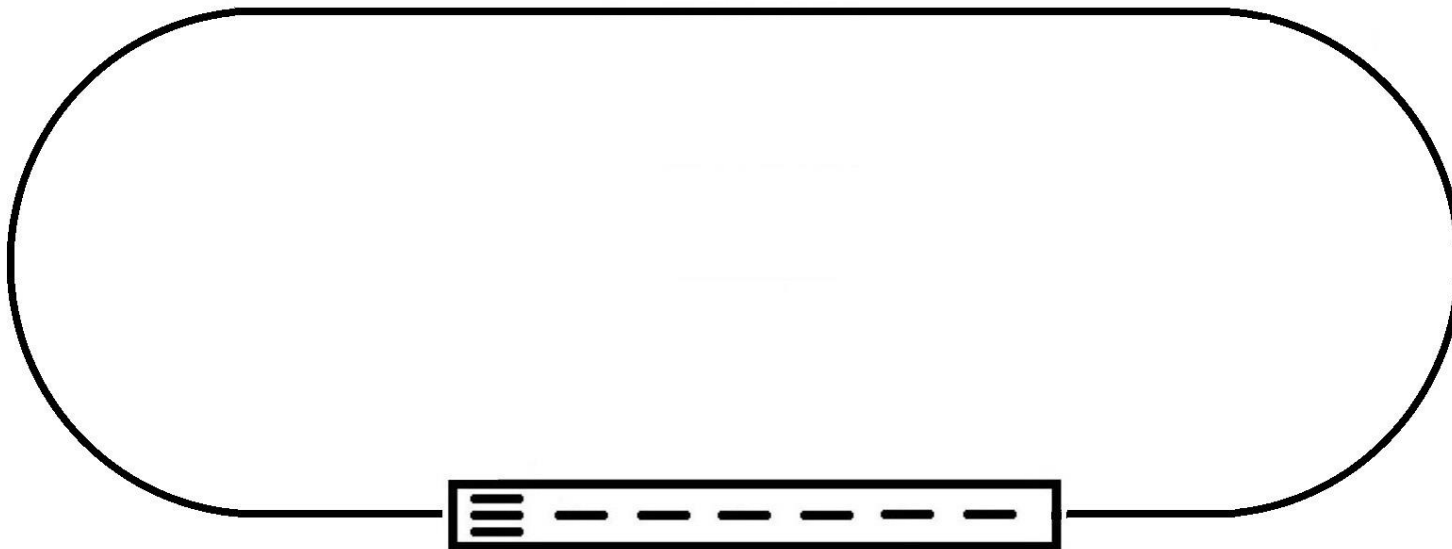
28Feb22

AIM: To learn to fly a bad weather circuit to land.

T&E:

M:

Airex:



Airex:

1. Teach the importance of ground instrument checks and instrument setup.
2. Teach the procedure for donning the hood/goggles before or after take-off.
3. Teach the difference between flying with the natural horizon and the AI.
4. Practice the transition from VMC to IMC.
5. Teach icing checks and MSA awareness. FREDAMI.
6. Introduce and practice **straight and level** flight using the selective radial scan (SRS).
7. Introduce and practice **turning at rate one** using the selective radial scan (SRS).
8. Introduce and practice **climbing** (full power) using the selective radial scan (SRS).
9. Introduce and practice **descending** at 500 fpm using the selective radial scan (SRS).
10. Teach a bad weather circuit to land to a touch and go. The student will then practice one.

Flight Prompt Card

Ex IMCR 1: BIFM 1

AIREX:

- 1: **STUDENT** taxi instrument checks.
- 2: **STUDENT** take-off. Hood/goggles on.
- 3: DEMO/Teach the use of the AI.
- 4: DEMO/Teach transition to instruments.
- 5: DEMO/Teach Ice/MSA checks.
- 6: DEMO/Teach S&L. **STUDENT PRACTICE.**
- 7: DEMO/Teach Rate One turns. **STUDENT PRACTICE.**
- 8: DEMO/Teach Full power climb **STUDENT PRACTICE.**
- 9: DEMO/Teach 500 fpm descent. **STUDENT PRACTICE**
- 10: DEMO/Teach Bad Wx circuit to T&G. **STUDENT PRACTICE.**

Debriefing

- The student will probably find the lesson hard work with lots of concentration required. A short debrief with emphasis on instrument & icing/MSA checks and selective radial scan would be beneficial.

Common Student Errors

- Failure to check all of the required flight instruments before flight (AI, TC, DI or compass).
- Overly tight grip on the controls resulting in over-controlling of the aircraft - advise the student to relax grip or use the armrest.
- Fixating on a single instrument, resulting in a breakdown of the radial scan - advise the need to maintain the radial scan.
- The most common fault is over-concentration on one instrument with a breakdown in the radial scan. Very often this occurs during power changes where, with the engine power instruments outside the normal scan pattern the student, in attempting to set the power accurately, will ignore the indications of the flight instruments. The instructor must insist that this is an extension of the selective scan technique and that the scan must be maintained.
- Over-controlling is another common fault often due to tension, failure by the student to allow time for the instruments to settle after a change and the failure by the student to relate the miniaturised presentation of attitude changes on the AI with large attitude changes by the aircraft. Generally, tension disappears as proficiency increases but the instructor may need to re-demonstrate the relationship between instrument and visual indications to cure gross over-control. Finally, the student must be taught that control movements in instrument flight should generally be partial to changes in pressure with hands and feet rather than obvious movement. If the problem persists have the student hold the controls only with the fingertips whilst carrying out some manoeuvres.

Common Instructor Errors

- Do not overload the student. If necessary, break this lesson down into 2 or more smaller lessons.
- When teaching icing checks, do not teach the student to ask 'any ice' at frequent intervals – this shows no icing awareness, just the ability to remember to ask! Instead, encourage them to look at the OAT. If the OAT is above 5°C, then they should say something along the lines 'Temperature plus 9, no icing threat'. If the temperature is 5°C or below say 'Temperature 2 degrees – any ice?'.

IMC Rating Lesson 2: Basic Instrument Flight (BIFM) 2

Aims:

- To practice basic instrument flying and introduce limited panel flying.
- To learn how to fly in different configurations (including missed approach).

Pre-Flight Briefing:

- Briefing on Limited Panel instrument flight.

Airex:

1. Practice straight and level flying at different airspeeds.
2. Practice climbing and descending turns.
3. Practice basic instrument flight in different configurations of gear and flap.
4. Teach descent in approach configuration to clean climb (go-around).
5. Teach flying using limited panel including compass and timed turns.
6. Practice bad weather circuit to land.

Flight Prompt Card

Ex IMCR 2: BIFM 2

AIREX:

1: **STUDENT** taxi/instrument checks. Take-off. Hood On.
2: **REVISION:** Give headings to fly. Give climbs & descents to specified altitudes. **STUDENT PRACTICE.**
3: **DEMO/Teach S&L** at diff speeds. **STUDENT PRACTICE.** 4: **DEMO/Teach S&L** at diff flap settings. **STUDENT PRACTICE.** 6: **DEMO/Teach descent & g/a** with app flap. **STUDENT PRACTICE.**
7: **DEMO/Teach S&L limited panel.** **STUDENT PRACTICE.** 8: **DEMO/Teach climb & descent limited panel.** **STUDENT PRACTICE.** 9: **STUDENT PRACTICE** flying limited panel under your vectors to airfield.
10: **Reset full panel.** **STUDENT PRACTICE** Bad Wx circuit to full stop.

Common Student Errors

- Failure to comply with any aeroplane speed limitation e.g. flap or undercarriage extension/retraction speeds.
- Failure to allow the aircraft to stabilise when flying on limited panel - advise student to take their time.
- Failure to let the aircraft stabilise is the most common fault in limited panel instrument flying. The student checks for accuracy before the aircraft settles, makes a correction and starts a pendulum action. The instructor must emphasise the time needed for the aircraft to settle, if necessary, repeating the demonstrations visually.

Common Instructor Errors

- As before, do not move on until the student is ready. If necessary, break this lesson down into 2 or more smaller lessons.

IMC Rating Lesson 3: Basic Instrument Flight (BIFM) 3

Aims:

- To practice basic IF Flying (including limited panel).
- To practice unusual attitude recoveries.
- To learn how to make a position fix using radio-navigational aids.

Pre-Flight Briefing:

- Briefing on unusual attitude recovery (full and limited panel).
- Briefing on transition to visual flight on landing and on visibility requirements.
- Briefing on Navaid use and of **TITS**. (Tune Ident Twist Sense) or **STIF** (Select Tune Ident Function).

Airex:

1. Practice basic IF flying (full and limited panel).
2. Teach unusual attitude recovery (full and limited panel).
3. Teach position fixing using VOR/VOR, VOR/DME and NDB/DME as installed.
4. Teach use of GNSS (Map, Nearest facility and Direct To navigation).
5. Practice bad weather circuit to land.
6. Practice visual transition when landing.

Flight Prompt Card

Ex IMCR 3: BIFM 3

AIREX:

- 1: **STUDENT** taxi/instrument checks. Take-Off. Hood On.
- 2: **REVISION**: Full Panel: Give headings to fly. Climbs & descents to specified altitudes. **STUDENT PRACTICE**.
- 3: **REVISION**: Limited Panel: Headings to fly. Give climbs & descents to spec alts. **STUDENT PRACTICE**.
- 4: **DEMO/Teach Unusual Attitude (UA) recovery**. **THROTTLE-ROLL-PITCH**. **STUDENT PRACTICE**.
- 6: Remind proc to Position Fix on VOR/DME or 2xVOR. **STUDENT PRACTICE**. NDB if fitted.
- 7: Remind basic VOR tracking TO and FROM beacon. **STUDENT PRACTICE**.
- 8: **DEMO/Teach basic use of GNSS**. Direct To Airfield. **STUDENT PRACTICE** flying back to airfield on GNSS.
- 10: **STUDENT PRACTICE** Bad Wx circuit to full stop.

Common Student Errors

- Failure to comply with any aeroplane speed limitation e.g. flap or undercarriage extension/retraction speeds.
- Failure to allow the aircraft to stabilise when flying on limited panel - advise student to take time.
- As with all instrument flying exercises the most common fault is breakdown of scan. This can be due to over concentration on one instrument or failure to maintain a check of the flight Instruments when carrying out a power change or checklist drill. Practice, and the insistence by the instructor on the need to fly the aeroplane as a priority with all else being secondary will help to overcome this fault.
- Another common fault applicable to all instrument flying is disorientation due to accepting sensory inputs from the brain instead of indications from the instruments. As exercises become more demanding the chances of the student suffering disorientation increase. Again, practice should help to prevent the problem but the student should understand that sensory indications must be ignored when instrument flying.

Practical Considerations

- Consider teaching the UA at the end of the lesson to avoid air-sickness.
- If time permits - track a VOR radial to check understanding.

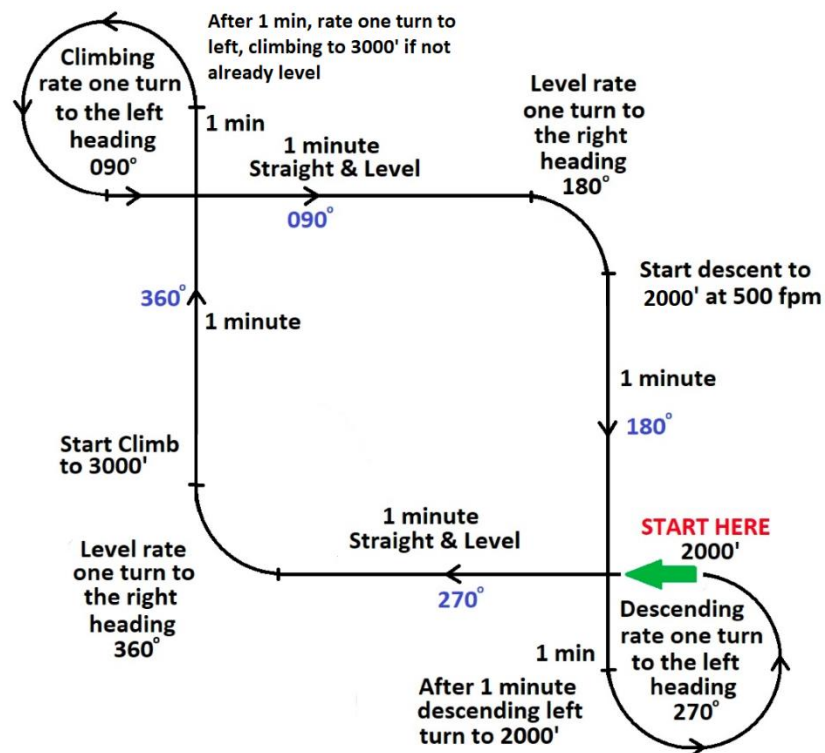
Common Instructor Errors

- To be added.

BIFM Training Profile 1

60 - 1 23 Jul 20

Farnborough APP RAD 125.25 134.355 Listening Squawk 4572	Benson ZONE 120.9	Blackbushe INFO 122.305 RADIO 122.305 By ATC	Farnborough ATIS 128.405
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NOTES:

Cruise at IAS or power setting as directed
Carry out ice checks at regular intervals
All turns to be rate one
All climbs at maximum power
All descents at 500 fpm

EXTRA TASKS:

FREDA checks when able
Copy down Farnborough ATIS

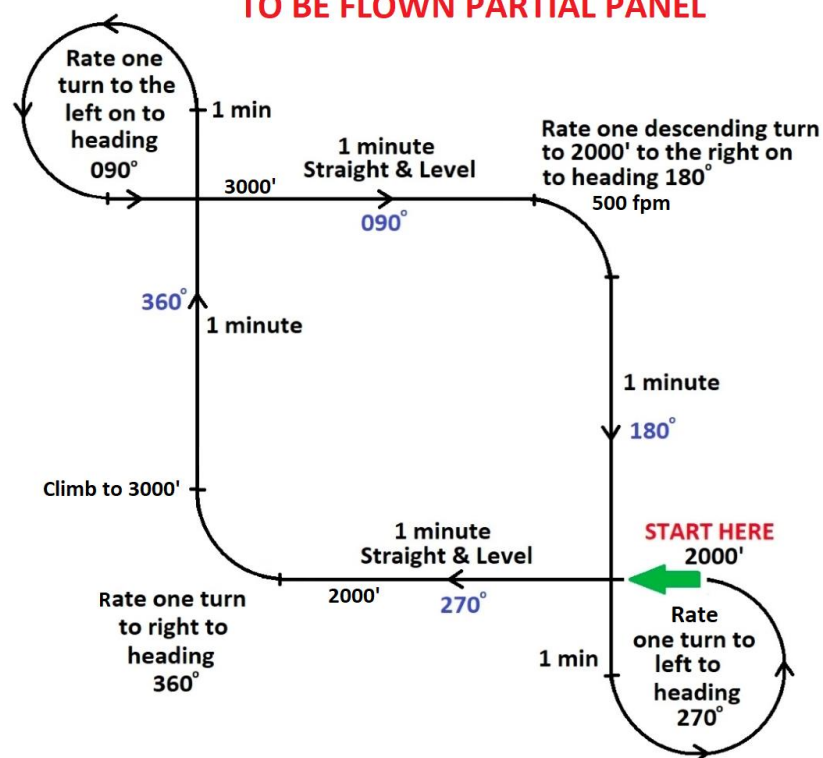
60 - 1

BIFM Training Profile 2

60 - 2 10 Jun 20

Farnborough APP RAD 125.25 134.355 Listening Squawk 4572	Benson ZONE 120.9	Blackbushe INFO 122.305 RADIO 122.305 By ATC	Farnborough ATIS 128.405
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TO BE FLOWN PARTIAL PANEL



NOTES:

Cruise at IAS or power setting as directed
Carry out ice checks at regular intervals
All turns to be rate one
All climbs at maximum power
All descents at 500 fpm

EXTRA TASKS:

FREDA checks when able
Copy down Farnborough ATIS

60 - 2

IMC Rating Lesson 4: Basic Instrument Flight (BIFM) 4

Aims:

- To practice basic instrument flying.
- To learn how to track VOR radials both TO and FROM a VOR station.

Pre-Flight Briefing:

- Briefing on VOR Tracking.

Airex:

1. Practice basic IF flying (simulated radar vectors).
2. Practice flying the pre-prepared profile (see below) to check progress.
3. Teach how to track TO a VOR using OBS or HSI.
4. Teach how to track FROM a VOR using OBS or HSI.
5. Practice tracking in and out of nominated radials.

Common Student Errors

- Chasing the needle rather than setting correction headings.
- Failing to note the upper wind during flight planning.
- Over or under-correcting - typically should use 2x error.
- Fixating on the nav instrument resulting in over-correction - advise student to fly the aircraft and cross check using VOR.
- Failing to anticipate a turn onto the outbound track approaching the VOR.
- Setting the radial on the course selector (rather than the reciprocal) when tracking TO the VOR.
- Turning a full 360° when attempting to intercept a radial.

Practical Considerations

- Ideally, a VOR should be available in the local area for practice. In the coming months, many UK VORs will be decommissioned making this harder.

Common Instructor Errors

- Do not overload the student. If necessary, break this lesson down into 2 or more smaller lessons.

'Daisies at Compton™' - A Practical VOR Exercise

This practical and useful exercise requires the availability of a VOR in uncontrolled airspace near the home airfield. This is becoming increasingly difficult, however CPT & DTY are good examples and expected to remain in service for several years to come.

The exercise begins several miles from the VOR by asking the student to fix themselves using VOR/DME. For example, the student is on the 135R. They are then told to track that radial to the VOR.

As they track inbound, tell them that on reaching the VOR, you want them to track out on the 270 radial:

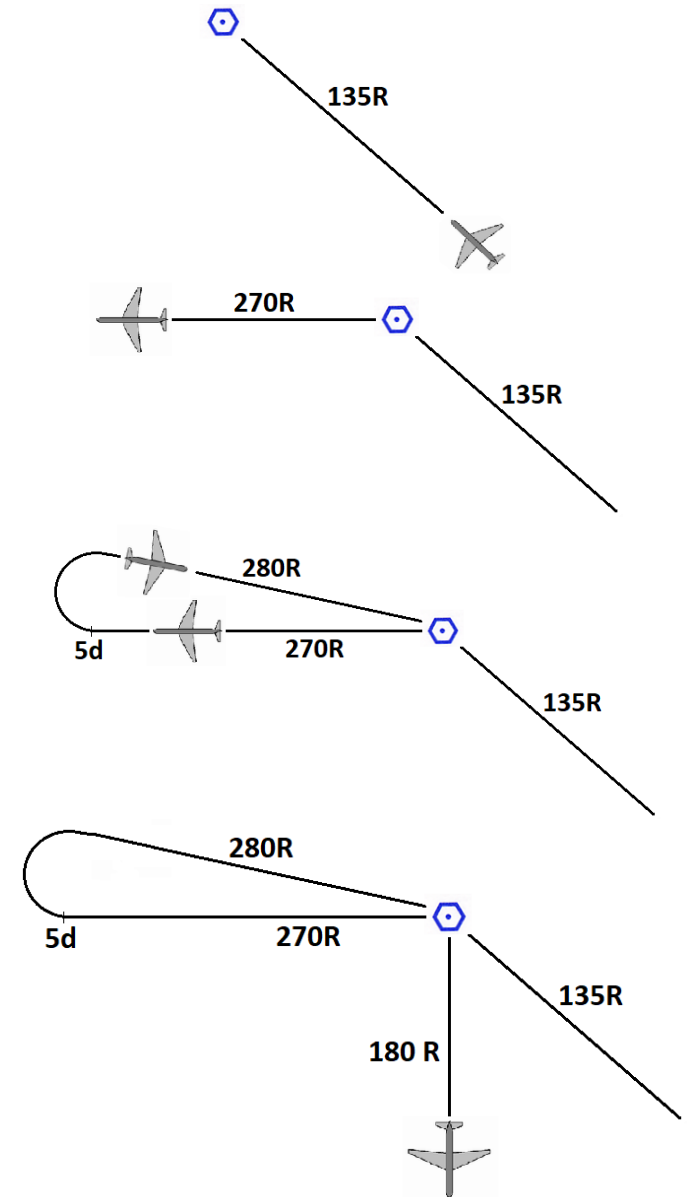
At about 5 miles outbound from the VOR, ask them where the 280 radial from the VOR is relative to them. They should point to the right.

Then tell them to track back to the VOR on the 280 radial.

If the student correctly sets the course to 100 on the OBS, the instrument will show a full left deflection and the student is often tempted to turn left. You can then remind them that they were told the radial was to the right, so they must turn right.

As they approach the beacon, tell them to prepare to leave on the 180 radial.

This is a good opportunity to talk about anticipation. If the student waits until they are overhead the VOR on this turn, they will overshoot and the intercept will be messy. Explain how to make a sensible anticipation in heading change.



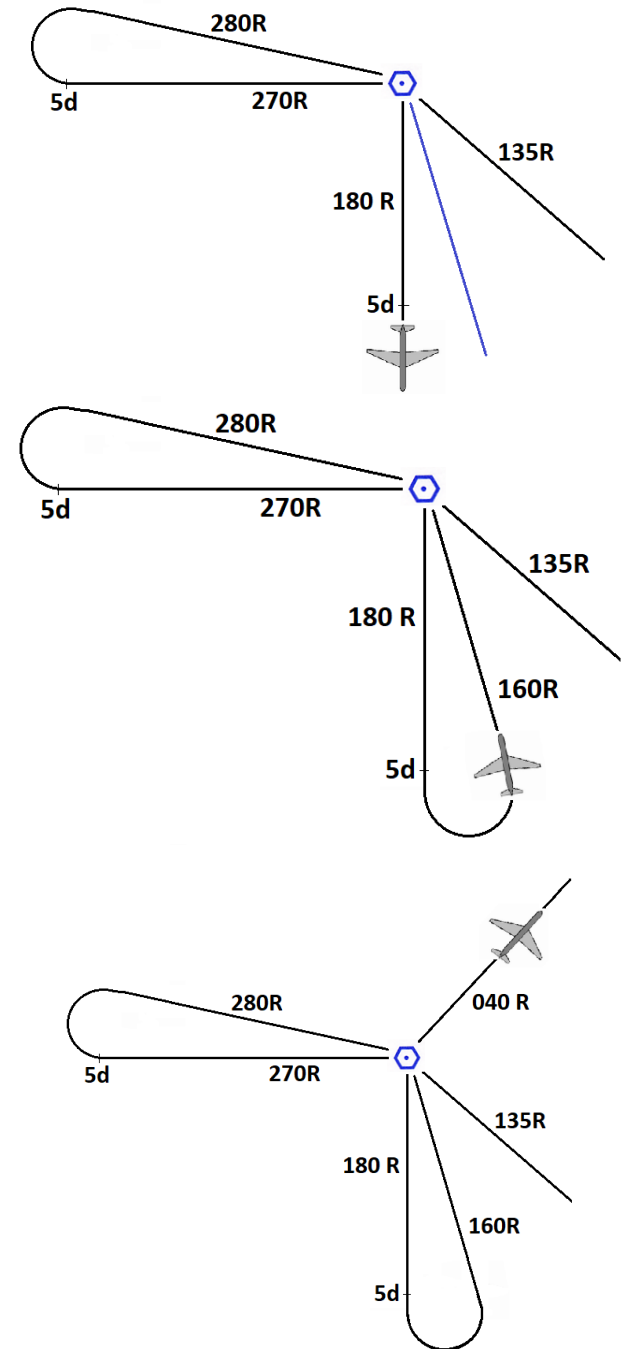
Again, at about 5 miles outbound from the VOR, ask them where the 170 radial from the VOR is relative to them. They should point to the left.

Then tell them to track back to the VOR on the 170 radial.

Hopefully this will result in a left turn and the course set to 350.

As they approach the VOR tell them to leave on the 040 radial

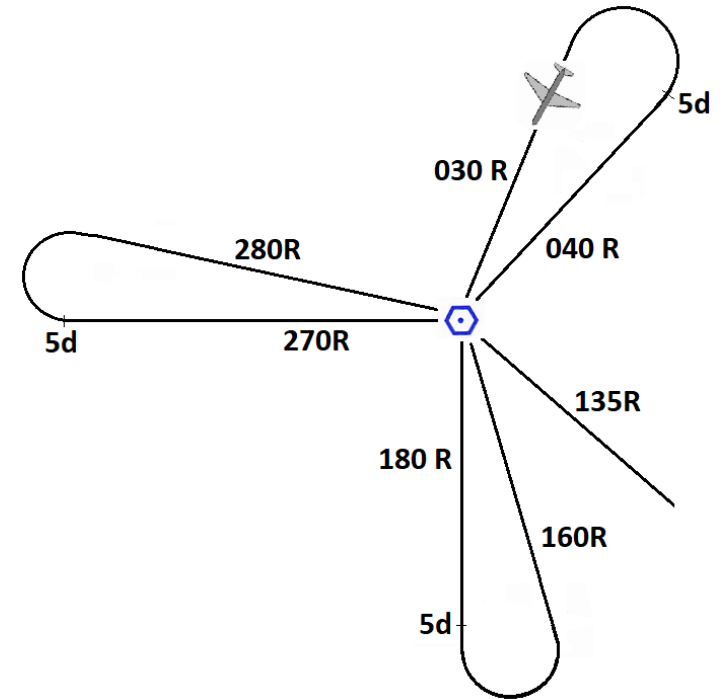
This gives another chance to check their anticipation of the turn.



Then, at 5 miles out, ask them to return to the VOR on the 030 radial. Hopefully, they work out correctly which way to turn.

Repeat this exercise until a good understanding is achieved.

The radial numbers do not matter. Pick any values that suit the exercise and airspace.



Flight Prompt Card

Ex IMCR 4: VOR Tracking

AIREX:

- 1: **STUDENT** taxi/instr checks. Take-Off. Hood On.
- 2: **STUDENT** to position fix on VOR/DME or VOR/VOR.
- 3: **STUDENT** to track inbound to VOR. 4: Ensure Ice/MSA checks carried out. 5: **STUDENT** to leave VOR on specified radial. 6: At ~5d **STUDENT** to return to VOR on specified radial (10° off outbound radial).
- 7: Approaching VOR **STUDENT** to leave VOR on specified different radial. 8: **STUDENT** repeats in and out of VOR until proficient. 9: **STUDENT** to leave VOR on specified different radial that leads back to airfield.
- 10: **STUDENT PRACTICE** Bad Wx circ to full stop.

Debriefing

- The student will probably find the lesson hard work with lots of concentration required. Try to encourage them to imagine themselves above, looking down on the situation. Practice with iPad Apps can be very helpful.

IMC Rating Lesson 5: Procedural Training 1: VOR Approaches

Aims:

- To learn to fly a VOR based instrument departure.
- To practice tracking VOR radials.
- To learn how to hold using a VOR.
- To learn how to fly a 45° procedure turn.
- To learn how to fly a VOR approach at CPT (or other VOR away from an airfield).
- To learn how to fly the go-around and missed approach.

Pre-Flight Briefing:

- Briefing on VOR holding and approaches.
- Briefing on instrument approach charts.
- Briefing on instrument minima.

Airex:

1. Teach a VOR based instrument departure.
2. Practice VOR tracking.
3. Teach how to fly a 45° procedure turn.
4. Teach VOR holding.
5. Teach a VOR approach at CPT or other VOR away from the airfield environment. Once level, and once with descent as published.
6. Teach how to fly the go-around following an instrument approach. Teach the missed approach procedure.
7. Practice a VOR based instrument arrival.
8. Practice a bad weather circuit to land.

Flight Prompt Card

Ex IMCR 5: VOR Approach in Local Area

AIREX:

- 1: **STUDENT** taxi/instr checks. Take-Off. Hood On.
- 2: **STUDENT** to fly SID/DEP based on VOR.
- 3: DEMO/Teach hold entry and holding based on VOR.
- 4: DEMO/Teach 45° procedure turn. **STUDENT PRACTICE**. Ensure Ice/MSA checks carried out.
- 5: DEMO/Teach VOR app procedure at local VOR. **STUDENT PRACTICE** flying the proc level (no descent).
- 6: **STUDENT PRACTICE** flying the VOR procedure with descent & go-around.
- 9: **STUDENT** leaves VOR on radial that leads to airfield.
- 10: **STUDENT PRACTICE** Bad Wx Circuit to full stop.

Common Student Errors

- Inappropriate corrections when off-track.
- Failing to note the upper wind during flight planning.
- Failure to promptly execute a missed approach at the MDA.
- Forgetting to check for ice.
- Lack of MSA awareness.

Practical Considerations

- The instructor may wish to simulate radio calls while practicing the VOR approach.

Common Instructor Errors

- Do not overload the student. If necessary, break this lesson down into 2 or more smaller lessons.

Blackbushe INFO 122.305	RADIO 122.305 By ATC	Farnborough ATIS 128.405 Farnborough Radar 125.250 Listening Squawk 4572	Benson Radar 120.9
AD Elev 325	ARP: N51 19.4 W000 50.9	RF: 1	AD HR: 07-18, PPR 18-22

30 - 3

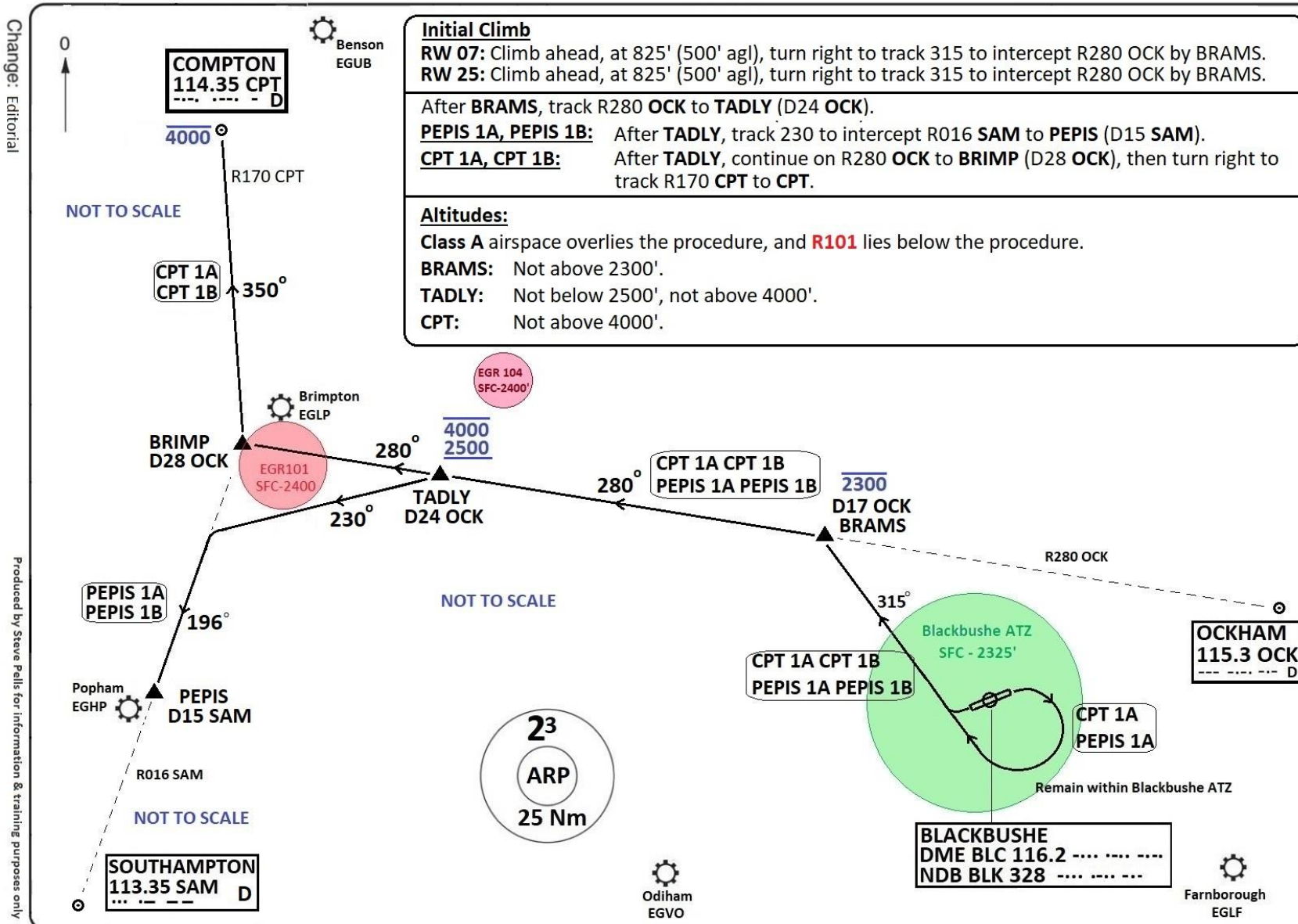
Initial Climb
RW 07: Climb ahead, at 825' (500' agl), turn right to track 315 to intercept R280 OCK by BRAMS.
RW 25: Climb ahead, at 825' (500' agl), turn right to track 315 to intercept R280 OCK by BRAMS.

After **BRAMS**, track R280 OCK to **TADLY** (D24 OCK).

PEPIS 1A, PEPIS 1B: After **TADLY**, track 230 to intercept R016 SAM to **PEPIS** (D15 SAM).

CPT 1A, CPT 1B: After **TADLY**, continue on R280 OCK to **BRIMP** (D28 OCK), then turn right to track R170 CPT to **CPT**.

Altitudes:
 Class A airspace overlies the procedure, and **R101** lies below the procedure.
BRAMS: Not above 2300'.
TADLY: Not below 2500', not above 4000'.
CPT: Not above 4000'.

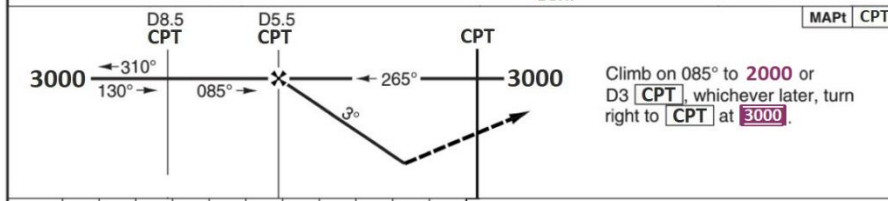
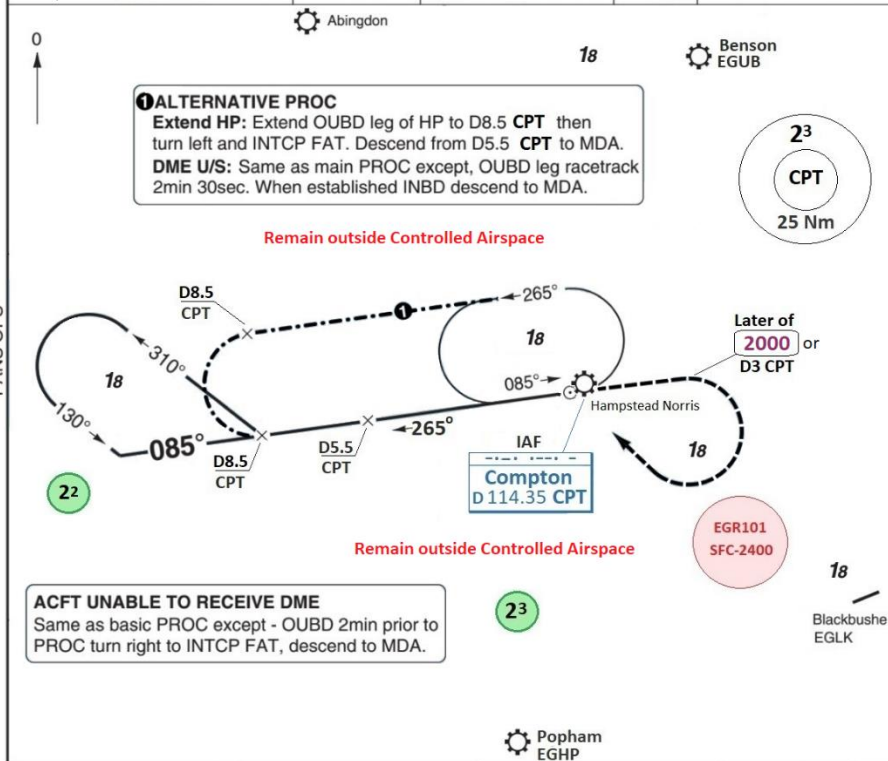


VOR A (Training)

50 - 1 27 SEP 20

United Kingdom
Hampstead Norris **COMPTON**

Farnborough RADAR 125.25 134.355	Blackbushe INFO 122.305	Benson ZONE 120.9
Farnborough ATIS 128.405	LFA Squawk 7010	
Farnborough Listening Squawk 4572		
VOR/DME 114.35 CPT	FAT 085°	AD Elev 483
	TA 6000	



Acft	VOR+DME	VOR	DME CPT	3.0° ALT	Hampstead Norris is a private strip. PPR required for landing.
A	1640 (1157) 1200m	1690 (1207) 1500m	5.5	3000	
			5	2840	
			4	2520	
			3	2200	
			2	1870	
			1.3	1640	

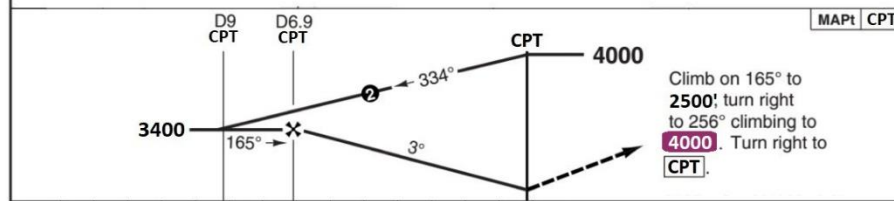
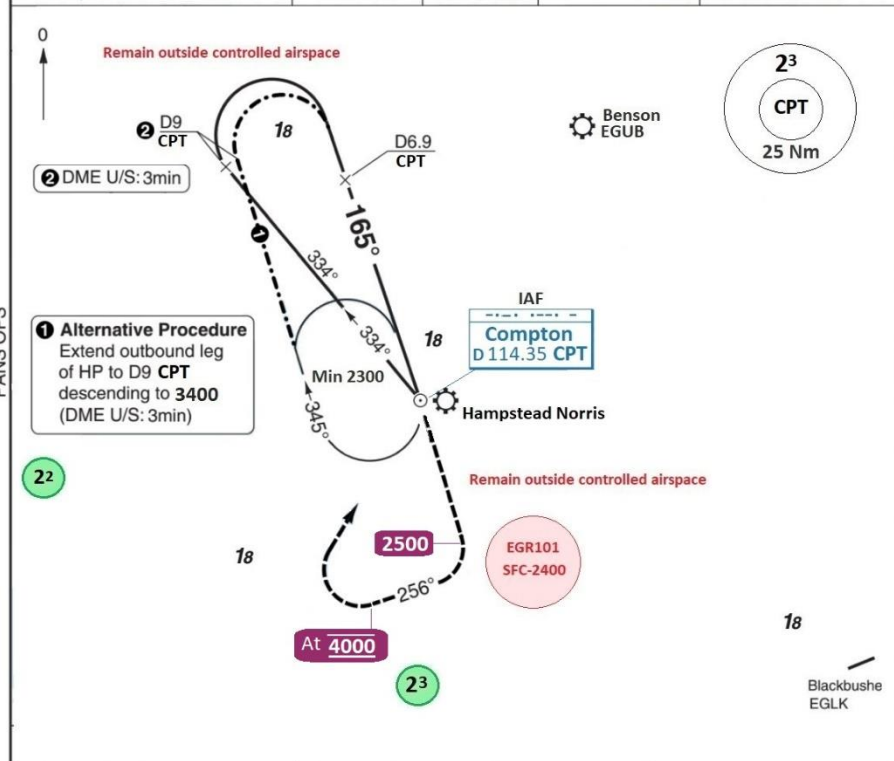
Change: Spec Produced by Steve Pells for information & training purposes only

VOR C (Training)

50 - 3 27 SEP 20

United Kingdom
Hampstead Norris **COMPTON**

Farnborough RADAR 125.25 134.355	Blackbushe INFO 122.305	Benson ZONE 120.9
Farnborough ATIS 128.405	LFA Squawk 7010	
Farnborough Listening Squawk 4572		
VOR/DME 114.35 CPT	FAT 165°	AD Elev 483
	TA 6000	



Acft	VOR+DME	VOR	VOR a	DME CPT	3.0° ALT	Hampstead Norris is a private strip. PPR required for landing.
A	1490 (1007) 1800m	1680 (1197) 1900m	1680 (1197) 2100m	6.9	3400	
				6	3120	
				5	2800	
				4	2490	
				3	2170	
				2	1860	
				1	1540	
				0.9	1490	

Change: Spec Produced by Steve Pells for information & training purposes only

IMC Rating Lesson 6: Procedural Training 2: VOR Approaches at an Airfield

Aims:

- To practice flying a VOR based instrument departure.
- Further practice tracking VOR radials.
- To practice holding using a VOR at an airfield.
- To practice flying a VOR approach at an airfield.

Pre-Flight Briefing:

- Briefing on relevant instrument approach charts & minima.

Airex:

1. Practice a VOR based instrument departure.
2. Further practice of VOR tracking.
3. Practice holding at a VOR at an airfield.
4. Practice flying a VOR approach at an airfield (instructor may take the radio to reduce workload).
5. Practice flying the go-around and missed approach procedure.
6. Practice a VOR based instrument arrival back to base.
7. Practice a bad weather circuit to land at base.

Flight Prompt Card

Ex IMCR 6: VOR Approach at Airfield

AIREX:

- 1: **STUDENT** taxi/instrmt checks. Take-off. Hood On.
- 2: **STUDENT** to fly SID/DEP based on VOR tracking.
- 3: **STUDENT** to fly En-route leg. ATIS, Ice, MSA, PLOG.
- 4: **STUDENT** to fly STAR/ARR based on VOR tracking.
- 5: **STUDENT** to fly a VOR based hold if possible.
- 6: **STUDENT** to fly the VOR app with/without RT to g/a.
- 7: Repeat if possible. **STUDENT PRACTICE**
- 8: **STUDENT** to fly en-route back to home airfield.
- 9: **STUDENT PRACTICE** Bad Wx Circuit to full stop.

Common Student Errors

- Failing to note the upper wind during flight planning.
- Failure to descend in accordance with the published profile.
- Failure to note the approach minima prior to flight.
- Failure to promptly initiate a missed approach at the appropriate point.
- Failure to follow the missed approach procedure.
- Forgetting to check for ice.
- Lack of MSA awareness.

Practical Considerations

- The instructor may wish to handle radio calls while the student flies the VOR approach.

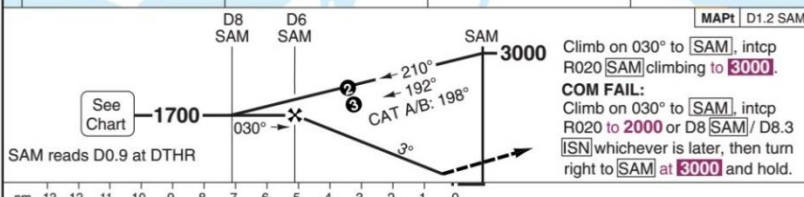
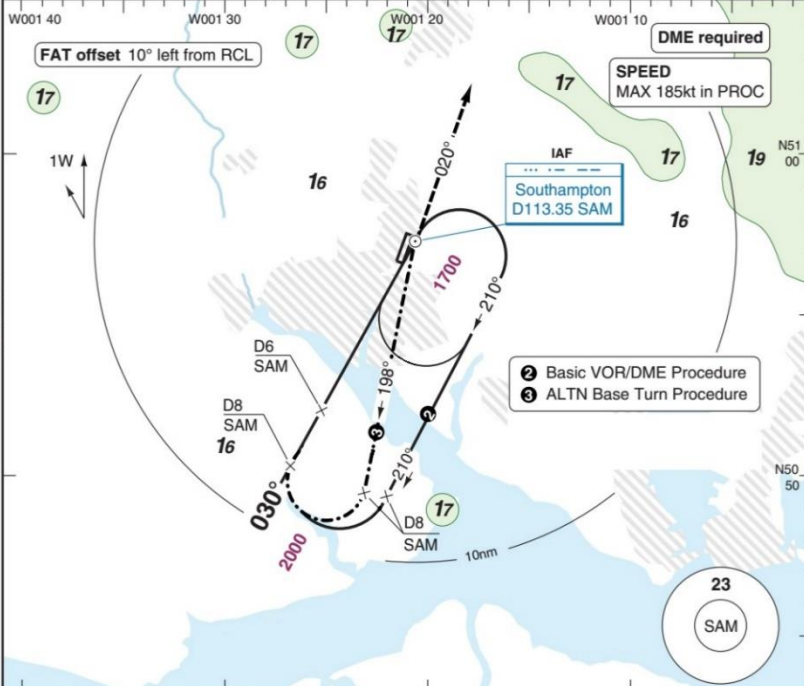
Common Instructor Errors

- Do not overload the student.
- Do not take the student to an actual airfield unless he has successfully demonstrated ability in the local area.
- The most common fault in procedural flying is to over-concentrate on the relevant radio instrument and to ignore the flight instruments. This is particularly so during the ADF/VOR or ILS approaches when radial scan tends to break down. The instructor must expect this in the early stages of training and insist on the maintenance of the correct scan. If the fault persists intermittent covering of the radio instrument or demonstration of the correct procedure in visual conditions may help to eradicate the fault.
- Procedural flying increases the student's workload and may produce random faults. These should gradually disappear as experience is gained.

VOR RWY 02 CAT A **Special Cat A IR(R)** **SOUTHAMPTON**

Southampton APP RAD 122.73 By ATC Solent APP RAD 120.23 Southampton TWR 118.205 ATIS 130.88 1 TA 3000 if Solent CTA CLSD

VOR/DME 113.35 SAM FAT 030° DTHR Elev 31 AD Elev 44 TL ATC TA 6000 1



ACFT	VOR+DME	Circling
A	530 (499) 1500m	670 (626) 1.5km

DME SAM ALT	3.0°
6.0	1700
5	1380
4	1060
3	750
2.3	530

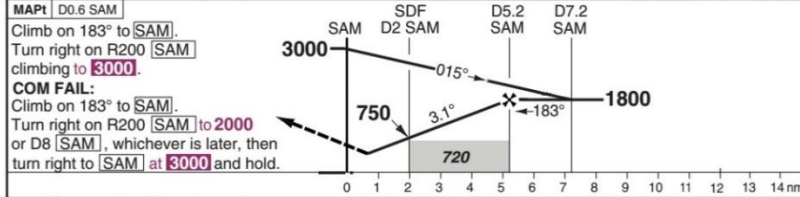
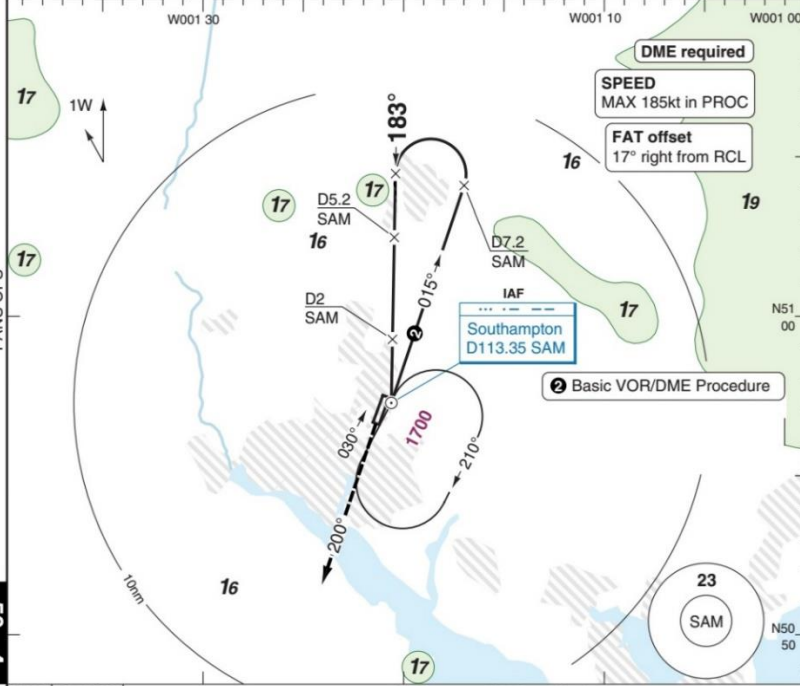
GS	80	100	120	140	160
ROD 3.0°	420	530	630	740	850
FAF - MAPt	3:36	2:53	2:24	2:03	1:48

Change: Spec update

VOR RWY 20 CAT A **Special Cat A** **SOUTHAMPTON**

Southampton APP RAD 122.73 By ATC Solent APP RAD 120.23 Southampton TWR 118.205 ATIS 130.88 1 TA 3000 if Solent CTA CLSD

VOR/DME 113.35 SAM FAT 183° DTHR Elev 44 AD Elev 44 TL ATC TA 6000 1



ACFT	VOR+DME	Circling
A	560 (516) 1900m	670 (626) 1.9km

DME SAM ALT	3.1°
5.2	1800
4	1410
3	1080
2	760
1.4	560

GS	80	100	120	140	160
ROD 3.1°	440	550	660	770	880
FAF - MAPt	3:27	2:46	2:18	1:58	1:43

Change: Spec update

IMC Rating Lesson 7: Procedural Training 3: NDB Approaches (Optional)

Note:

- Many aircraft nowadays do not have a working ADF receiver. In this case, omit this exercise.

Aims:

- To learn to fly an NDB based instrument departure.
- To practice tracking to and from an NDB.
- To learn how to hold using an NDB.
- To learn how to fly an NDB approach at WCO (or other NDB away from an airfield).
- To practice flying the go-around and missed approach.

Pre-Flight Briefing:

- Briefing on NDB holding and approaches.
- Briefing on relevant instrument approach chart & minima.

Airex:

1. Teach an NDB based instrument departure.
2. Practice NDB tracking both to and from the beacon.
3. Teach NDB holding.
4. Teach an NDB approach at WCO or other NDB away from the airfield environment. Once level, and once with descent as published.
5. Practice flying the go-around following an instrument approach.
6. Practice an NDB based instrument arrival.
7. Practice a bad weather circuit to land.

Flight Prompt Card

Ex IMCR 7: NDB Approach in Local Area

AIREX:

- 1: **STUDENT** taxi/instr checks. Take-Off. Hood On.
- 2: **STUDENT** to fly SID/DEP based on NDB.
- 3: DEMO/Teach hold entry and holding based on NDB.
- 4: Revise/DEMO/Teach 45° procedure turn. **STUDENT PRACTICE**. Ensure Ice/MSA checks carried out.
- 5: DEMO/Teach NDB app procedure at local NDB. **STUDENT PRACTICE** flying the proc level (no descent).
- 6: **STUDENT PRACTICE** flying the NDB procedure with descent & go-around.
- 7: **STUDENT** routes to home airfield using NDB.
- 8: **STUDENT PRACTICE** Bad Wx Circuit to full stop.

Common Student Errors

- Inappropriate corrections when off-track.
- Failing to note the upper wind during flight planning.
- Failure to understand or allow for ADF dip.
- Forgetting to check for ice.
- Lack of MSA awareness.

Practical Considerations

- The instructor may wish to simulate radio calls while practicing the NDB approach.

Common Instructor Errors

- Do not overload the student. If necessary break this lesson down into 2 or more smaller lessons.

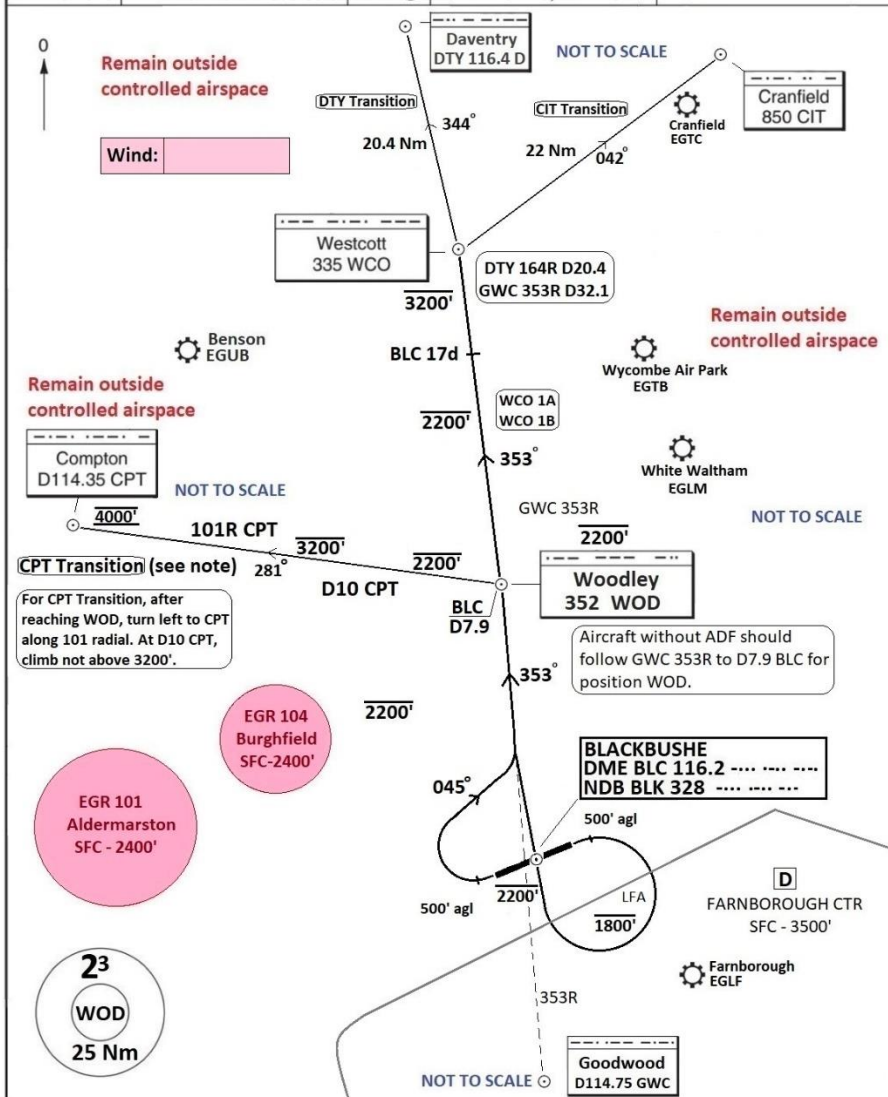
WOD & WCO SIDs

30 - 5 26 Jul 20
Unofficial Procedure

United Kingdom - EGLK / BBS
BLACKBUSHE

Farnborough RADAR	125.25 134.355	Blackbushe INFO	122.305	Benson ZONE
Farnborough ATIS	128.405	LFA Squawk	7010	120.9
Farnborough Listening Squawk	4572			

AD Elev 325 ARP: N51 19.4 W000 50.9 RFF: 1 AD HR: 07-18, PPR 18-22



WOD 1A	[RW07]- After T/O at 500' agl turn right to airport overhead. Intercept GWC 353R to WOD. Not above 1800'.		
WOD 1B	[RW25]- After T/O at 500' agl turn right to track 045° to intercept GWC 353R to WOD. Not above 2200'.		
WCO 1A	[RW07]- As WOD 1A then track 353 to WCO. At 17d BLC not above 3200'.	Transitions to DTY & CIT	
WCO 1B	[RW25]- As WOD 1A then track 353 to WCO. At 17d BLC not above 3200'.	Transitions to DTY & CIT	

Change: Re-indexed

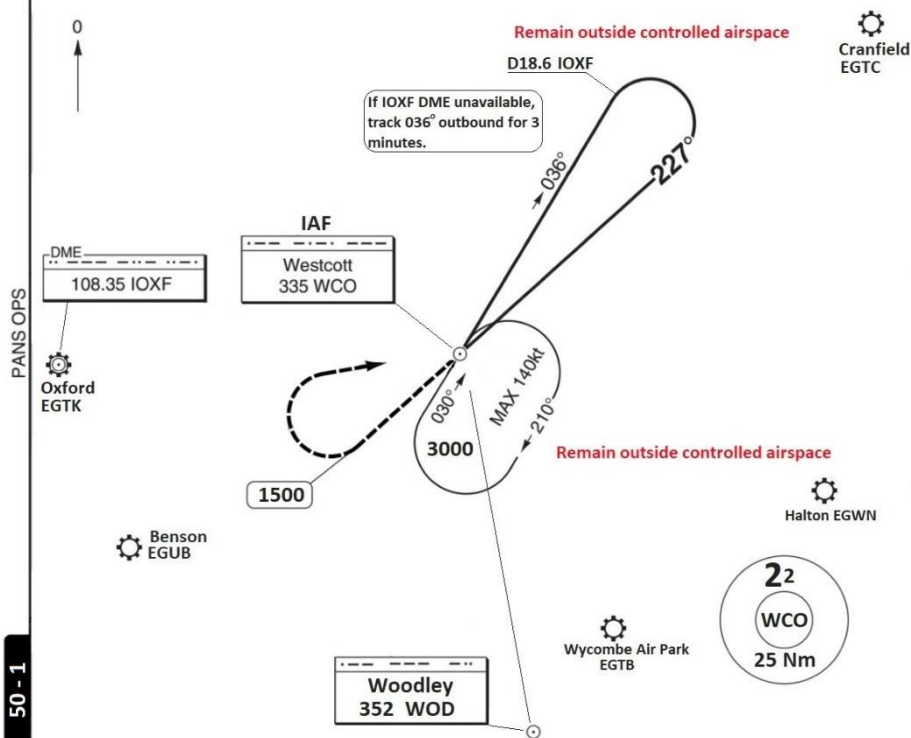
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NDB A (Training)

50 - 1 22 Dec 19
Special Cat A IR(R)

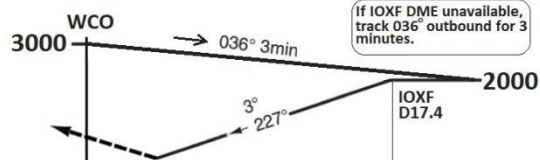
United Kingdom
WESTCOTT (Disused)

Farnborough APP RAD 132.8 125.25 Listening Squawk 4572	Benson ZONE 120.9	Blackbushe INFO 122.305 RADIO 122.305 By ATC	Oxford APP 125.09 Oxford RAD 125.09 MON-SAT 08-18, SUN 0830-1800 Oxford ATIS 136.23
NDB 335 WCO	FAT 227°	THR Elev 283	AD Elev 283 TL ATC TA 6000



MAPt WCO

Climb on 227° to 1500, turn right to WCO climbing to 3000



IOXF DME reads D13.4 at WCO

4.5 nm

	NDB + DME	NDB ONLY
IR	780 (500) 1500m	880 (600) 1800m
IR (R)	980 (700) 1500m	1080 (800) 1800m

1: GPS range to WCO may be used if unable to receive DME IOXF
Procedure is for training only with adequate lookout.
No runway aligned with procedure
Procedure based on EHLE NDB 23

DME IOXF	3.0° ALT	GPS RANGE WCO
17.4	2000	4.5
17	1840	4
16.1	1540	3
15.2	1240	2
14.3	940	1
13.4	780	0

CAUTION:
Westcott
Airfield is
Disused

GS	70	80	90	100	110	120	130	140
ROD 3.0°	380	430	485	540	595	650	705	760

Change: Note

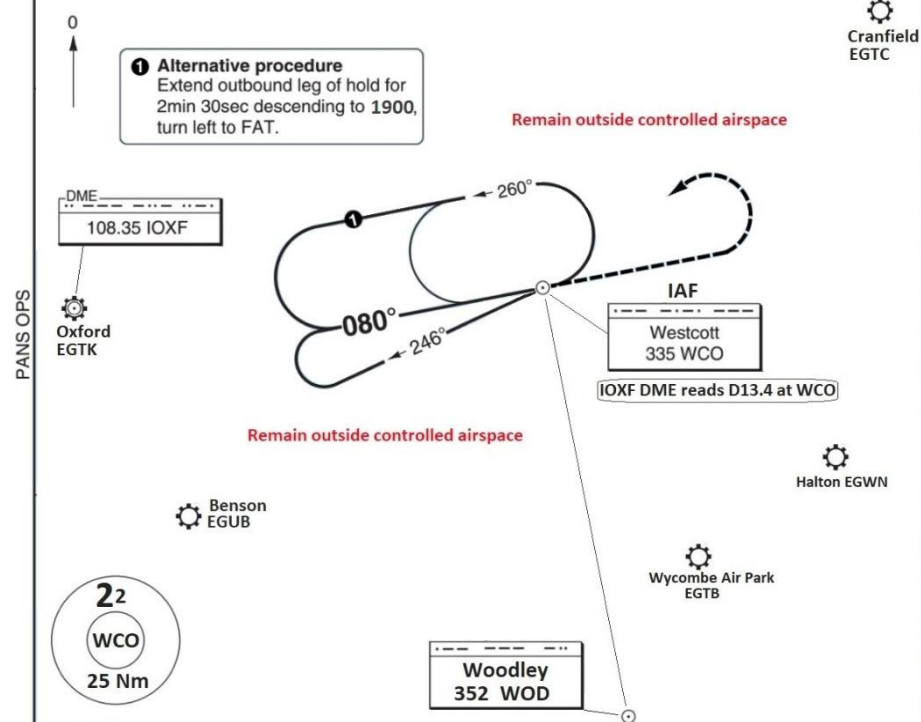
Produced by Steve Pells for information & training purposes only

NDB B (Training)

50 - 2 12JUN19
Special Cat A IR(R)

United Kingdom
WESTCOTT (Disused)

Farnborough APP RAD 132.8 125.25 Listening Squawk 4572	Benson ZONE 120.9	Blackbushe INFO 122.305 RADIO 122.305 By ATC	Oxford APP 125.09 Oxford RAD 125.09 MON-SAT 08-18, SUN 0830-1800 Oxford ATIS 136.23
NDB 335 WCO	FAT 080°	THR Elev 283	AD Elev 283 TL ATC TA 6000

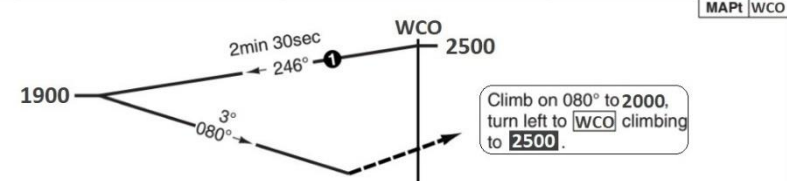


PANS OPS

1 Alternative procedure
Extend outbound leg of hold for 2min 30sec descending to 1900, turn left to FAT.

Remain outside controlled airspace

Remain outside controlled airspace



IOXF DME reads D13.4 at WCO

	NDB
IR	1180 (897) 1400m
IR (R)	1380 (1097) 1500m

Procedure is for training only with adequate lookout.
No runway aligned with procedure
Procedure based on EGJA NDB 08

CAUTION:
Westcott
Airfield is
Disused

Change: Initial Issue

Produced by Steve Pells for information & training purposes only

IMC Rating Lesson 8: Procedural Training 4: Radar Approaches

Aims:

- To learn how to fly an SRA or PAR VOR approach at an airfield.
- To practice flying the go-around and missed approach.

Pre-Flight Briefing:

- Briefing on SRA and/or PAR approaches.
- Briefing on the relevant instrument approach charts.
- Briefing on instrument minima.

Airex:

1. Teach an SRA approach at an airfield.
2. Teach how to fly the go-around following an instrument approach. Teach the missed approach procedure.
3. Teach a PAR approach including missed approach at an airfield.
4. Practice a bad weather circuit to land.

Flight Prompt Card

Ex IMCR 8: Radar Approaches at Airfield

AIREX:

- 1: **STUDENT** taxi/instrmt checks. Take-off. Hood On.
- 2: **STUDENT** to fly SID/DEP as required.
- 3: **STUDENT** to fly En-route leg. ATIS, Ice, MSA, PLOG.
- 4: **STUDENT** to fly STAR/ARR as required.
- 5: **DEMO/Teach/Coach** SRA app procedure at AD.
STUDENT PRACTICE.
- 6: **DEMO/Teach/Coach** PAR app procedure at AD.
STUDENT PRACTICE.
- 7: Repeat if possible. **STUDENT PRACTICE**
- 8: **STUDENT** to fly en-route back to home airfield.
- 9: **STUDENT PRACTICE** Bad Wx Circuit to full stop.

Common Student Errors

- Inaccurate headings and altitudes when under radar control.
- Failing to note the upper wind during flight planning.
- Forgetting to check for ice.
- Lack of MSA awareness.

Practical Considerations

- The instructor may wish to handle radio calls while the student is flying the approaches.

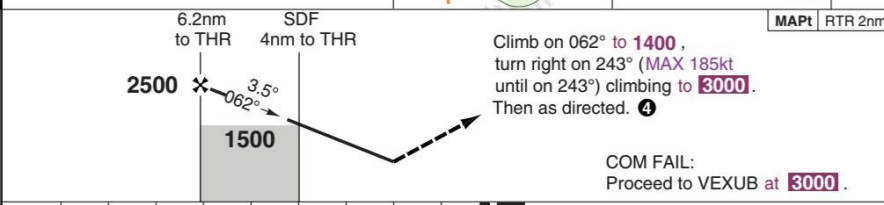
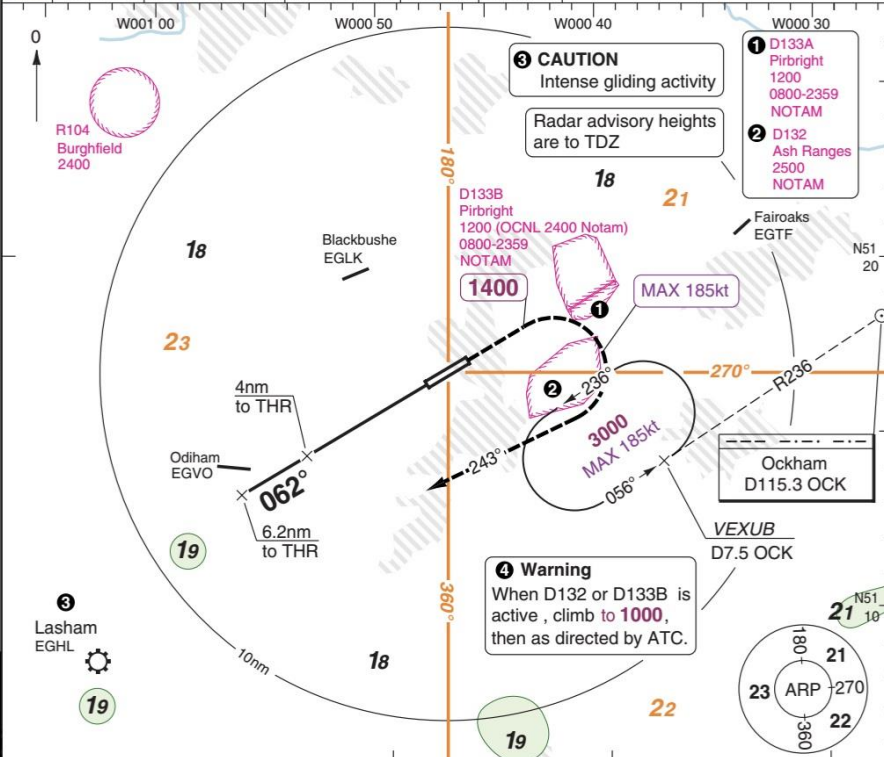
Common Instructor Errors

- Do not overload the student. If necessary, break this lesson down into 2 or more smaller lessons.

50 - 4 21 OCT 20 United Kingdom - EGLF / FAB
SRA RTR 2NM RWY 06 Special Cat A IR(R) FARNBOROUGH

Farnborough RAD 134.355 133.44 125.25	DIR 130.055 ATC	TWR 122.78	GND 121.815	ATIS 128.405
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SRA FAT 062° DTHR Elev 225 AD Elev 238 TL ATC TA 6000



nm 9 8 7 6 5 4 3 2 1 0	ACFT	SRA 2nm	Circling	Note: State published DME/ALT table figures. a South of RWY 06/24.	THR 06 ALT	LDA 1800x45 5905x1477ft P 3.5° (51)
	A	1010 (785) 1500m	1030 (785) 1.5km		6.2 2500	
					5 2080	
					4 1710	
					3.0 1340	

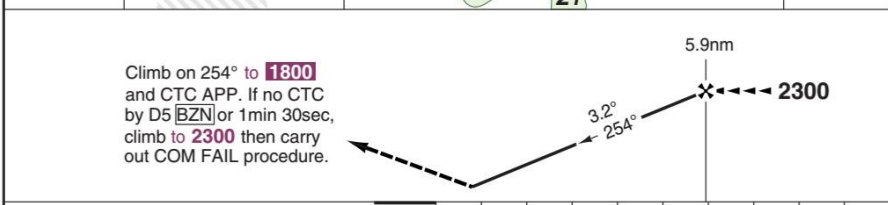
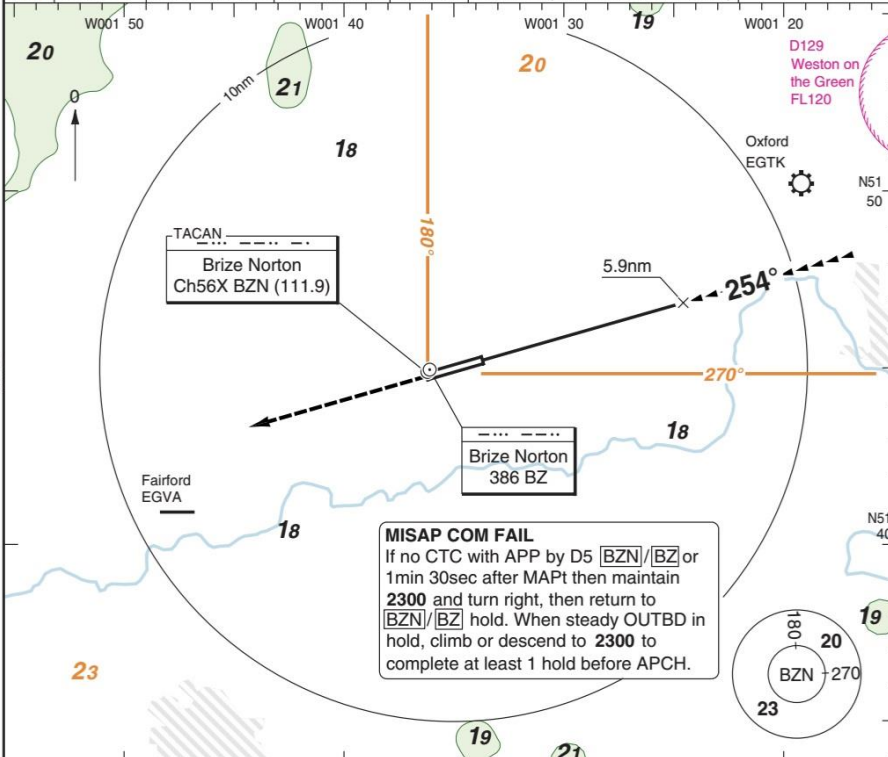
GS	80	100	120	140	160
ROD 3.5°	500	620	750	870	1000
FAF - MAPt	3:09	2:31	2:06	1:48	1:35

Change: Spec update

50 - 11 21 OCT 20 United Kingdom - EGVN / BZZ
PAR RWY 25 AA: 3.2° Special Cat A IR(R) BRIZE NORTON

Brize APP 127.25	RAD 124.275	DIR 133.75	TWR 123.725	Talkdown 123.55	GND 121.725	OPS 130.075	Zone 119.0	ATIS 126.5	Subject to AVBL
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PAR FAT 254° THR Elev 248 AD Elev 287 TL ATC TA 3000 (6000 inside DTY CTA)



TCH 51	ACFT	PAR	Circling	a NA North of RWY.	LDA 3050x56 10006x184ft P 3° (51)
	A	530 (280) 0.8km	740 (450) 1.5km		

Change: Spec update

IMC Rating Lesson 9: Procedural Training 5: ILS Approaches

Aims:

- Further practice flying a VOR or NDB based instrument departure.
- Further practice tracking VOR or NDBs.
- Further practice holding at an airfield.
- To learn to fly an ILS approach at an airfield.

Pre-Flight Briefing:

- Briefing on ILS approaches.

Airex:

1. Practice a VOR or NDB based instrument departure.
2. Further practice of VOR or NDB tracking.
3. Practice holding at an airfield.
4. Teach flying an ILS approach at an airfield.
5. Practice flying the go-around and missed approach procedure.
6. Practice a VOR or NDB based instrument arrival back to base.
7. Practice a bad weather circuit to land at base.

Flight Prompt Card

Ex IMCR 9: ILS Approaches at Airfield

AIREX:

- 1: **STUDENT** taxi/instrmt checks. Take-off. Hood On.
- 2: **STUDENT** to fly SID/DEP as required.
- 3: **STUDENT** to fly En-route leg. ATIS, Ice, MSA, PLOG.
- 4: **STUDENT** to fly STAR/ARR/Hold as required.
- 5: DEMO/Teach ILS app procedure to g/a. **STUDENT PRACTICE**. Procedural or radar-vectored.
- 6: Repeat if possible. **STUDENT PRACTICE**
- 7: **STUDENT** to fly en-route back to home airfield.
- 8: **STUDENT PRACTICE** Bad Wx Circuit to full stop.

Common Student Errors

- Failing to note the upper wind during flight planning.
- Failure to descend in accordance with the published profile.
- Overly large corrections when off-track.
- Failure to establish a target rate of descent on the approach.
- Controlling rate of descent with power instead of pitch. Power controls speed.
- Failure to note the approach minima prior to flight.
- Failure to initiate a missed approach at the appropriate point.
- Failure to follow the missed approach procedure.

Practical Considerations

- The instructor may wish to handle radio calls while the student flies the second ILS approach.

Common Instructor Errors

- Do not overload the student. If necessary, take control for a while to allow them to relax.

50 - 1 | 02 DEC 20

United Kingdom - EGTK / OXF

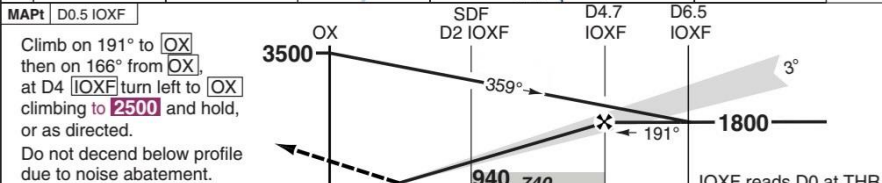
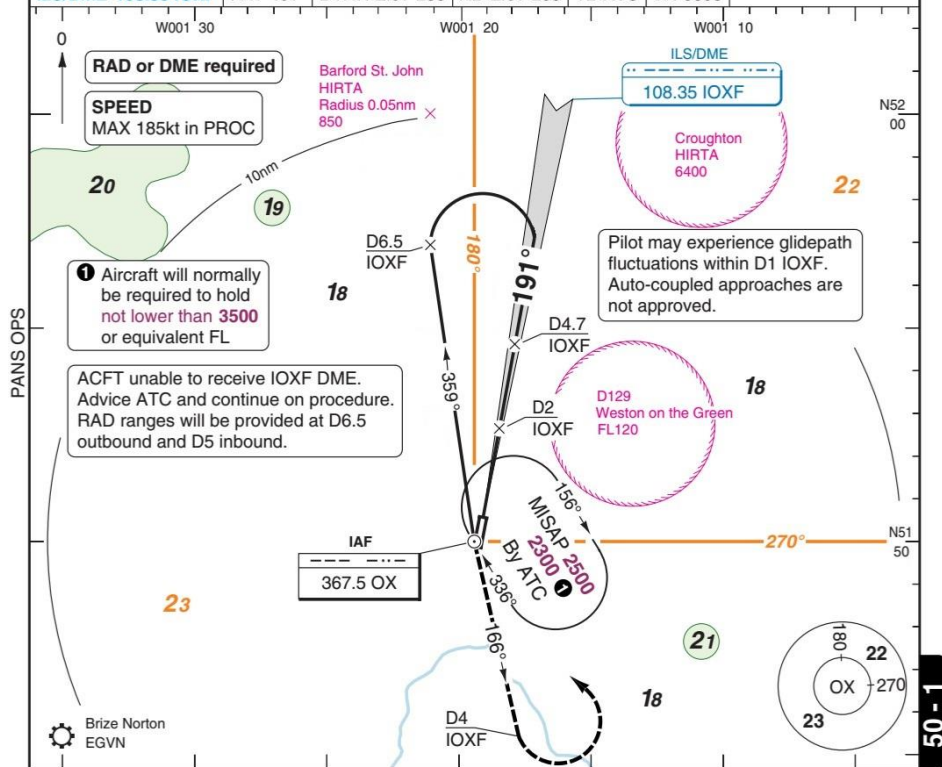
ILS RWY 19 CAT A (By ATC)

Special Cat A IR(R)

OXFORD

Oxford APP 125.09	RAD 125.09 MON-SAT 08-18, SUN 0830-1800	DIR 119.98 ATC	TWR 133.43	GND 121.955 ATC	ATIS 136.23
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ILS/DME 108.35 IOXF | FAT 191° | DTHR Elev 258 | AD Elev 263 | TL ATC | TA 6000



TCH 39

ACFT	ILS+DME	LOC+DME	Circling
A	458 (200) 800m	600 (342) 1200m	800 (537) 1.5km

GS	80	100	120	140	160
ROD 3.0°	430	530	640	750	850
FAF - MAPt	3:09	2:31	2:06	1:48	1:35

DME IOXF	3.0° ALT
4.7	1800
4	1580
3	1260
2	950
1	630
0.9	600

LDA 1319x30
4327x98ft
P 3° (41)

454

Change: Spec update

50 - 1

IMC Rating Lesson 10: Procedural Training 6: RNP Approaches (Optional)

Note:

- Not all aircraft are equipped with a suitable GNSS receiver for RNP approaches. If not, then omit this exercise.

Aims:

- To learn to fly a GNSS based instrument departure.
- To learn to fly an RNP approach at an airfield.

Pre-Flight Briefing:

- Briefing on RNP approaches (2D & 3D as appropriate to aircraft equipment).

Airex:

1. Teach a GNSS based instrument departure.
2. Further practice of programming and flying direct to waypoints using the GNSS.
3. Teach flying an RNP approach at an airfield (2D or 3D).
4. Practice flying the go-around and missed approach procedure.
5. Practice a GNSS based instrument arrival back to base.
6. Practice a bad weather circuit to land at base.

Flight Prompt Card

Ex IMCR 10: RNP Approaches at Airfield

AIREX:

- 1: **STUDENT** taxi/instrument checks. Take-off. Hood On.
- 2: **STUDENT** to fly SID/DEP as required.
- 3: **STUDENT** to fly En-route leg. ATIS, Ice, MSA, PLOG.
- 4: **STUDENT** to fly STAR/ARR/Hold as required.
- 5: **DEMO/Teach/Coach** RNP app procedure to g/a.
STUDENT PRACTICE.
- 6: Repeat if possible. **STUDENT PRACTICE**
- 7: **STUDENT** to fly en-route back to home airfield.
- 8: **STUDENT PRACTICE** Bad Wx Circuit to full stop.

Common Student Errors

- Failing to note the upper wind during flight planning.
- Failure to descend in accordance with the published profile.
- Overly large corrections when off-track.
- Failure to establish a target rate of descent on the approach.
- Controlling rate of descent with power instead of pitch. Power controls speed.
- Failure to note the approach minima prior to flight.
- Failure to initiate a missed approach at the appropriate point.
- Failure to follow the missed approach procedure.

Practical Considerations

- The instructor may wish to handle radio calls while the student flies the second RNP approach.

Common Instructor Errors

- Do not overload the student. If necessary, take control for a while to allow them to relax.

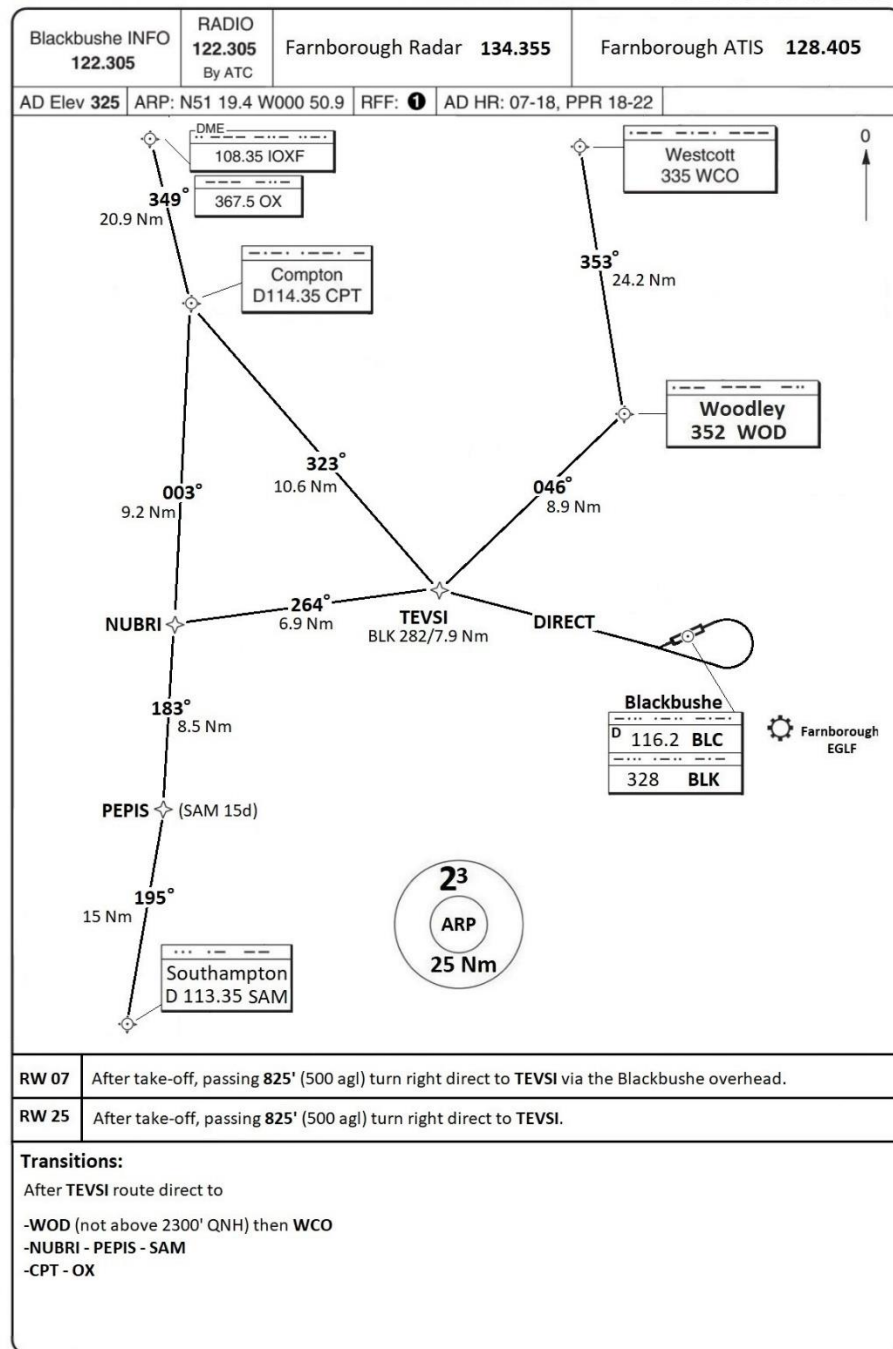
TEVSI RNAV DEPARTURES

30 - 4 12 Aug 20

United Kingdom - EGLK / BBS

Unofficial Chart

BLACKBUSHE



Change: New

Produced by Steve Pells for information & training purposes only

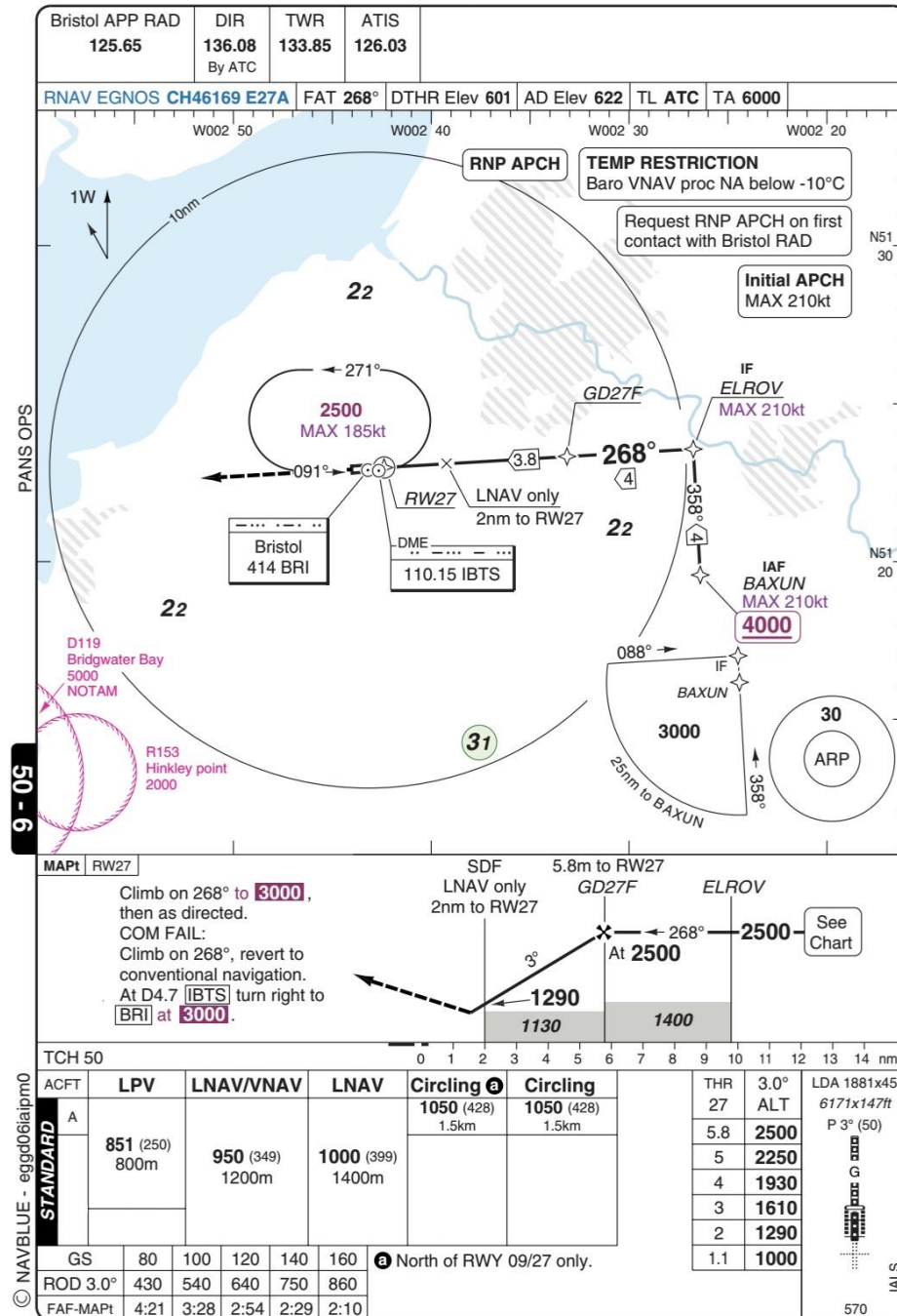
RNP RWY 27

50 - 6 02 SEP 20

United Kingdom - EGGD / BRS

Special Cat A

BRISTOL



IMC Rating Lesson 11: Procedural Training 7: IMC Rating Test Profile

Note:

- This is effectively a mock IMC rating test. Adjust according to aircraft equipment. Repeat this lesson as required.

Aims:

- To practice the test profile for the IMC rating skill test.

Pre-Flight Briefing:

- Briefing on approaches to be flown and exercised to be undertaken.

Airex:

1. Student flies a suitable route to destination airfield on instruments.
2. Student holds if required.
3. Student flies first approach, go-around and missed approach procedure.
4. Student flies second approach, go-around and missed approach procedure.
5. Student begins an instrument flight back to base. Instructor directs any VOR, NDB or GNSS tracking as required.
6. Instructor gives the student some full panel unusual attitudes to recover from.
7. Instructor directs some limited panel flying including timed compass turns and unusual attitudes.
8. Student flies a bad weather circuit back at base to land.

Common Student Errors

- Failing to note the upper wind during flight planning.
- Failure to plan a route to destination above the local MSA.
- Failure to copy ATIS during cruise.
- Poor radio communications.
- Failure to descend in accordance with the published profile.
- Overly large corrections when off-track.
- Failure to establish a target rate of descent on the approach.
- Controlling rate of descent with power instead of pitch. Power controls speed.
- Failure to note the approach minima prior to flight.
- Failure to initiate a missed approach at the appropriate point.
- Failure to follow the missed approach procedure.

Common Instructor Errors

- Do not overload the student. If necessary, take control for a while to allow them to relax.

Example Pre-Flight Briefing:

Blackbushe – Cranfield IR(R) Training

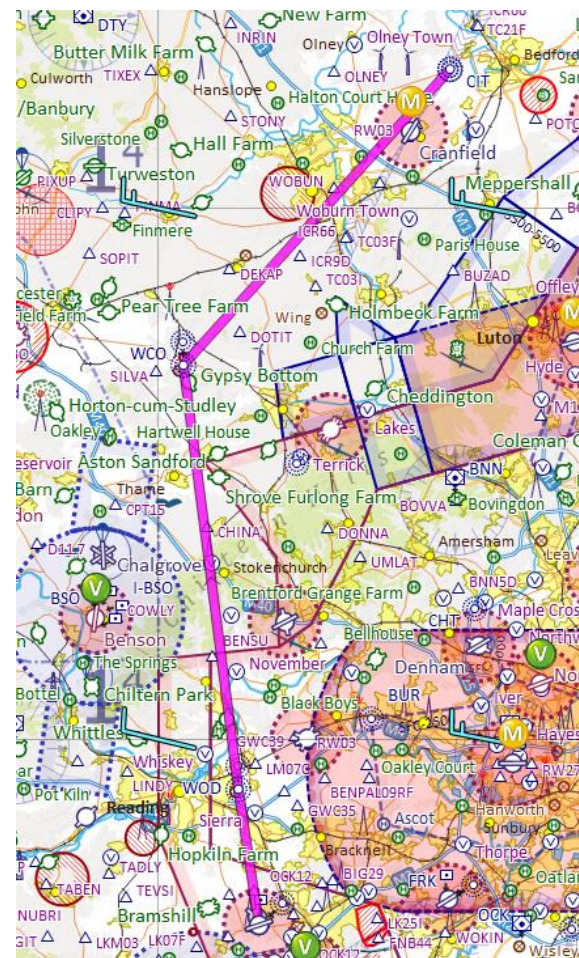
A Study Guide by Steve Pells Issue 3 27May20

The purpose of this document is to provide guidance to students under training for the IR(R). Charts shown are for information only. Check latest chart dates. Any aircraft speeds and power settings are for a PA28-161/181.

1. Flight Planning:

Call Cranfield ATC in advance, ideally several days in advance to secure the approaches. They will want to know what time UTC you will arrive at the CIT NDB or other IAF, and which approaches you would like. Approaches at Cranfield are procedural.

The suggested route to Cranfield is via Woodley and Westcott NDBs: EGLK – WOD – WCO - CIT. Suggested initial altitude of 2000’ to remain below controlled airspace. Once closer to WCO, further climb is possible. It is shown below.



On this routing, it is possible to depart VFR and pick up a basic or traffic service from Farnborough after departure. Remember to keep below the base of controlled airspace (initially remain below 2500’ QNH. Once approaching WCO you can climb to 3000’ or as required.

To remain higher if needed, route via CPT instead.

After WCO you can freccall Cranfield approach for further instructions.

A typical Navigation Log for the route is shown below:

Waypoint	Route	wDir	wSpd	TAS	Track	TH	MH	GS	Dist	ETE	ATE	Fuel	Fuel
	Altitude	Temp (dev)			WCA	Var				ETO	ATO	EFR	AFR
EGLK N 51°19.43' W 000°50.83'	•D➔	269° 8	71	351°	345°	346°	69	4.0	3.5		0.0		
TOC N 51°23.39' W 000°51.81'	•D➔	281° 13											
WOD 352 N 51°27.17' W 000°52.73'	•D➔	4°C (-5°)	110	351°	345°	346°	105	3.8	2.2		0.0		
WCO 335 N 51°51.18' W 000°57.74'	•D➔	283° 13											
TOD N 52°02.42' W 000°40.04'	•D➔	4°C (-6°)	110	353°	346°	348°	105	24.2	14		0.0		
EGTC N 52°04.33' W 000°37.00'	•D➔	281° 14											
	•D➔	281° 14	110	44°	38°	40°	117	15.7	8.0		0.0		
	•D➔	3°C (-6°)											
	•D➔	279° 15	108	44°	38°	39°	117	2.7	1.4		0.0		
	•D➔	3°C (-6°)											

2. Engine Start & Taxi at Blackbushe:

Engine start is as normal, but before taxi, set up as many of the nav aids as you can for your departure. Once ready for taxi, think ahead about your taxi route and where you will be able to fit instrument checks in to natural turns in the route.

3. After Take-Off:

As soon as possible after take-off, your instructor will take control to allow you to put on your goggles/hood. Once back in control, and settled, try to get the nav aids identified systematically. Select a suitable course and route to WOD NDB, below the base of the controlled airspace (say 2000'). Carry out the after take-off Checklist.

4. Cruise:

Once level, and every 15-20 minutes thereafter, carry out a FREDA check and an icing check. Many students become lazy about altitude keeping at this stage, so do try to keep your altitude accurately. Do not let a deviation of more than 100' go uncorrected!

After WOD, route direct to WCO and then either the CIT, or other IAF if flying an RNAV approach. Once you get to the IAF, things will start to get busy, so use the leg to and from WCO to get ahead of the game.

Tune and copy the ATIS, and then contact Cranfield Approach. They will probably clear you direct to the CIT or IAF and assign an altitude (usually 3500' or 4500'). They will also ask your training requirements including any holds required. Holding is not required for the IR(R) test, but if Cranfield is busy, you may be asked to hold anyway. **NOTE:** There are no published holds for the RNAV procedures at Cranfield.

This is also a good time to set up the nav aids for holding and the approach. Remember to **Tune, Ident, Twist** and make sure that the output is **Sensible** (TITS) i.e. VLOC or GPS as required on the Garmin etc.

Nav aids at Cranfield from the UK AIP: ----->

Note the range of the CIT NDB and do not try to use or identify it beyond this range.

Remember to set your altimeters to the Cranfield QNH.

EGTC AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid CAT of ILS/MLS MAG Var/VOR Declination	Ident	Frequency	Hours of Operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
ILS/LLZ I 0.38°W (2019)	ICR	108.900 MHz	Mon-Fri 0830-1900 (0730- 1800); Sat, Sun & PH 0900-1800 (0800- 1700).	520346.01N 0003733.78W		(RWY 21) ILS not to be used for practice auto- coupled landings. LOC may show fluctuations due to road traffic.
ILS/GP	ICR	329.300 MHz	Mon-Fri 0830-1900 (0730- 1800); Sat, Sun & PH 0900-1800 (0800- 1700).	520432.13N 0003639.93W		3° ILS Ref Datum Hgt 54 FT.
NDB (L) 0.37°W (2019)	CIT	850.000 kHz	Mon-Fri 0830-1900 (0730- 1800); Sat, Sun & PH 0900-1800 (0800- 1700).	520748.56N 0003324.77W		Range 15 NM.
ILS/DME	ICR	26X 108.900 MHz	Mon-Fri 0830-1900 (0730- 1800); Sat, Sun & PH 0900-1800 (0800- 1700).	520424.52N 0003702.87W	366 FT	(RWY 21) On AD. DME freq paired with ILS I-CR. Zero range is indicated at THR of Runway 21.

5. Holding at CIT:

As you enter the hold:

A/C. G-LT, entering the hold at CIT at 4500'.

ATC: G-LT, Roger.

Remember to plan the hold on the ground before departure, so that if a hold is required, the brain work is already complete. Coming from WCO, joining the hold at CIT needs some prior planning as it is not a direct entry.

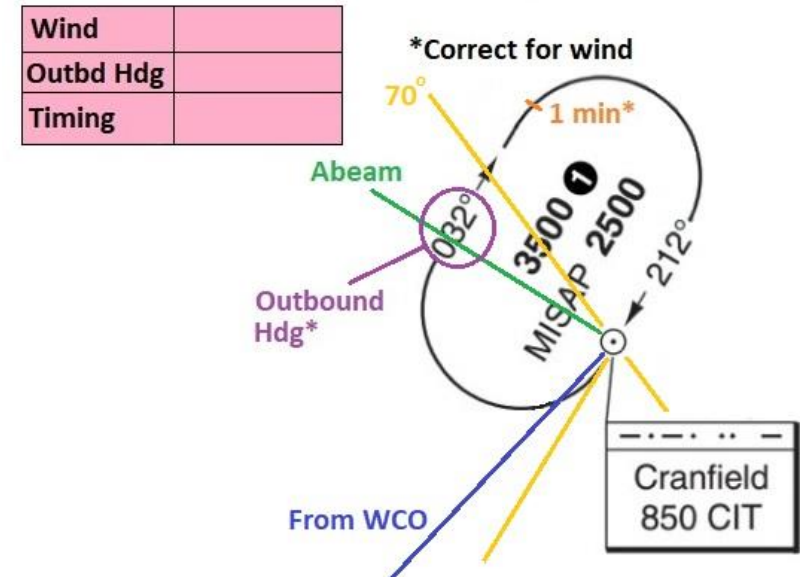
Once joined, remember to turn outbound as soon as the ADF needle flips, and to make all turns a steady rate one. Start your timing when wings are level or abeam, WHICHEVER COMES LATER.

ATC: G-LT, Descent to altitude 3500' in the CIT hold.

A/C. Descent to altitude 3500' in the hold, G-LT.

ATC: G-LT, Report ready for the procedure.

A/C. Ready for the procedure, G-LT.



6. Procedural ILS 21 Approach - Primary Procedure from CIT:

ATC: G-LT, on reaching the CIT, cleared procedural ILS approach runway 21. Report beacon outbound.

A/C: On reaching the CIT, cleared procedural ILS approach runway 21. Wilco, G-LT.

As you pass over the beacon and the ADF needle flips, turn left to track 018, set 2000 rpm and descend at about 500 fpm to 2500'. Do not descend below 2500'!

A/C: G-LT, Beacon outbound.

ATC: G-LT, Roger, report localiser established.

A/C: Wilco, G-LT

Once level at 2500', continue outbound, monitoring the ADF needle to ensure correct tracking away from the CIT. At 8.6 DME I-CR, begin a right rate one turn on to an intercept heading. 30-45 degrees from the final approach track normally works well, so depending on the wind, a heading of around 170-180 degrees will work. Do not let the aircraft descend below 2500' during this turn!

As soon as the localiser needle starts to move, turn to follow the inbound track. Remember the needle is much more sensitive than the VOR needle.

A/C: G-LT, Localiser Established.

ATC: G-LT, Roger, descend on the ILS, contact Cranfield Tower frequency 134.930.

A/C: Descend on the ILS, Cranfield Tower frequency 134.930, G-LT.

When you contact tower, they sometimes give you non-standard missed approach instructions which you need to be ready to copy. This part of the flight can be very busy, but you need to concentrate on accurate instrument flying.

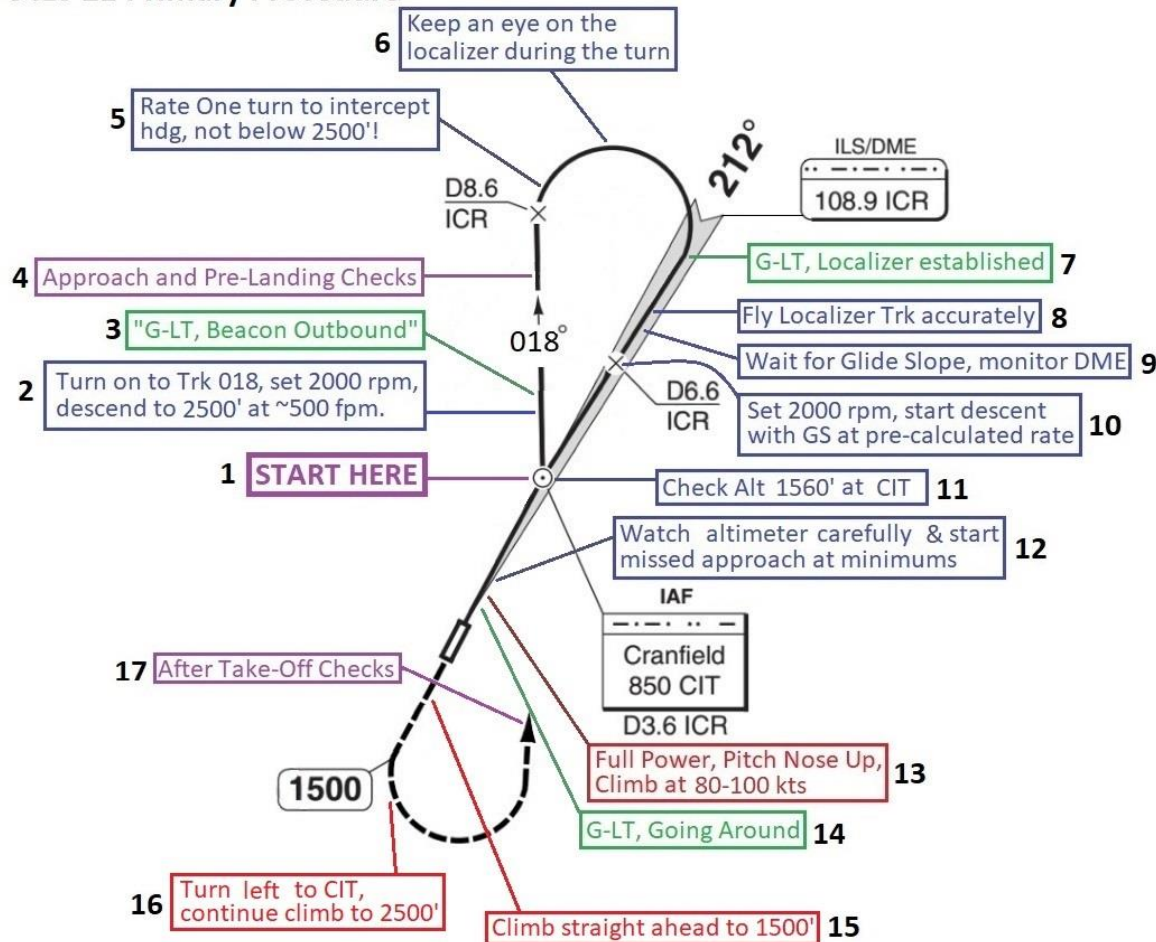
A/C: G-LT, ILS Runway 21.

ATC: G-LT, Roger, standard missed approach.

A/C: Standard missed approach, G-LT.

Now track the localiser and watch the glide slope pointer and DME distance.

EGTC ILS 21 Primary Procedure



As you approach 6.6 DME, the GS pointer should centralise. Without delay, set 2000 rpm, and descend at your pre-calculated rate of descent (typically 400-500 fpm). Remember that as you descend, the wind is likely to change and so your ROD target will change too. The groundspeed readout from any GPS or DME unit here is very useful in calculating the required rate of descent.

ATC: G-LT, Cleared low approach and go-around. Wind 250 at 15.

A/C: Clear low approach and go-around, G-LT.

At CIT, check your altitude is ~1560'. From this point on, the localiser and glide slope become very sensitive, so accurate flying is needed. The localiser and glideslope needles must be kept within half scale deflection or a missed approach must be carried out. Keep an eye on the altimeter, to make sure you don't go below your minimums.

Just before minimums, perform the go-around procedure: Full power, nose up, climb away at 80-100 kts

A/C: G-LT, Going around.

ATC: G-LT, Roger.

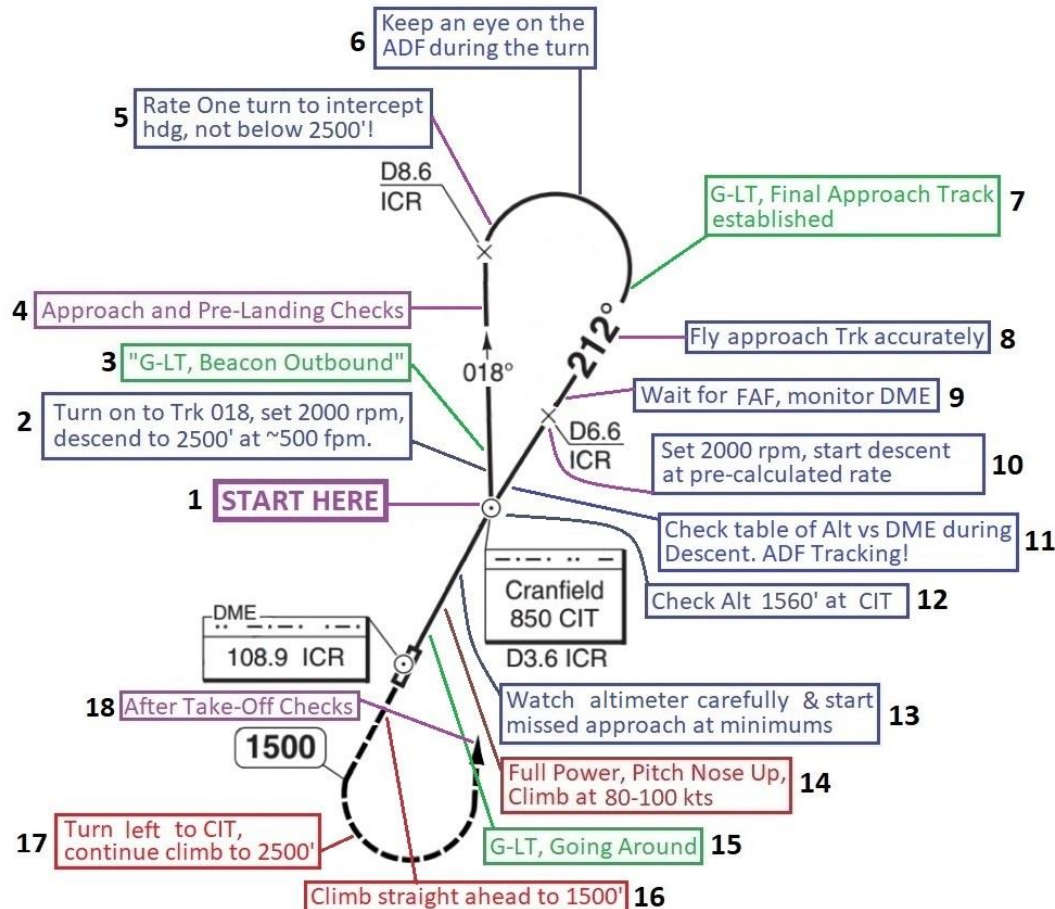
Then it is just a matter of flying either the published missed approach procedure, or the amended one if given. Once level, do not forget the after take-off checklist.

8. Procedural NDB Approach RW 21 - Primary Procedure from CIT:

ATC: G-LT, on reaching the CIT, cleared procedural NDB Approach runway 21. Report beacon outbound.

A/C: On reaching the CIT, cleared procedural NDB Approach runway 21. Wilco, G-LT.

EGTC NDB 21 Primary Procedure



As you pass over the beacon and the ADF needle flips, turn left to track 018, set 2000 rpm and descend at about 500 fpm to 2500'. Do not descend below 2500'!

A/C: G-LT, Beacon outbound.

ATC: G-LT, Roger, report final approach track established.

A/C: G-LT, Wilco

Once level at 2500', continue outbound, monitoring the ADF needle to ensure correct tracking away from the CIT. At 8.6 DME I-CR, begin a right rate one turn on to an intercept heading. 30-45 degrees from the final approach track normally works well, so depending on the wind, a heading of around 170-180 degrees will work. Do not let the aircraft descend below 2500' during this turn!

Once the ADF needle is about 5 degrees from the final approach track (i.e. 207), turn to follow the inbound track. Remember the needle suffers dip in the turn.

A/C: G-LT, Final approach track Established.

ATC: G-LT, Roger, descend with the procedure, contact Cranfield Tower frequency 134.930.

A/C: Descend with the procedure, Cranfield Tower frequency 134.930, G-LT.

When you contact tower, they sometimes give you non-standard missed approach instructions which you need to be ready to copy. This part of the flight can be very busy, but you need to concentrate on accurate instrument flying.

A/C: G-LT, NDB/DME approach Runway 21.

ATC: G-LT, Roger, standard missed approach.

A/C: Standard missed approach, G-LT.

Now track the Final Approach Track (FAT) at 2500' and monitor the DME distance. As you approach 6.6 DME, it is time to descend. **Remember: You can only descend on the procedure if you are within 5 degrees of the final approach track!**

Without delay, set 2000 rpm, and descend at your pre-calculated rate of descent (typically 400-500 fpm). Remember that as you descend, the wind is likely to change and so your ROD target will change too.

During the descent, every mile, check the table of DME vs altitude to see if you are on the correct profile. If not, make a small correction to your ROD. At the CIT, check your altitude is ~1560'. Keep the ADF needle pointing to 212 prior to the CIT, and 032 afterwards. Keep an eye on the altimeter, to make sure you don't go below your minimums. Just before minimums, perform the go-around procedure: Full power, nose up, climb away at 80-100 kts

A/C: G-LT, Going around.

ATC: G-LT, Roger.

Then it is just a matter of flying either the published missed approach procedure, or the amended one if given. Once level, do not forget the after take-off checklist.

11. Procedural RNP (RNAV) Approach RW 21 via ADSON:

There are no nav aids required for the approach, but the missed approach requires the CIT NDB. Some distance away, load the RNP (RNAV) 21 procedure via ADSON into the GPS. Make sure GPS rather than VLOC is displayed.

ATC: G-LT, direct to position ADSON, descend to altitude 2500', cleared RNAV Approach runway 21. Report ADSON.

A/C: Direct to ADSON, descend to altitude 2500', cleared RNAV approach runway 21 via ADSON. Wilco, G-LT.

Now go to the GPS, and activate the approach. This should set ADSON as the active waypoint. Track towards ADSON. Set 2000 rpm and descend at about 500 fpm to 2500'. Do not descend below 2500'! As you pass ADSON, the GPS will command a turn right to track 142. Follow this track as accurately as you can.

A/C: G-LT, ADSON.

ATC: G-LT, Roger, report final approach track established.

A/C: G-LT, Wilco

TC211 is now the active waypoint. Approaching TC211 the GPS will command another right turn to the FAT of 212 degrees. Do not let the aircraft descend below 2500' during this turn!

A/C: G-LT, Final approach track Established.

ATC: G-LT, Roger, descend with the procedure, contact Cranfield Tower frequency 134.930.

A/C: Descend with the procedure, Cranfield Tower frequency 134.930, G-LT.

When you contact tower, they sometimes give you non-standard missed approach instructions which you need to be ready to copy. This part of the flight can be very busy, but you need to concentrate on accurate instrument flying.

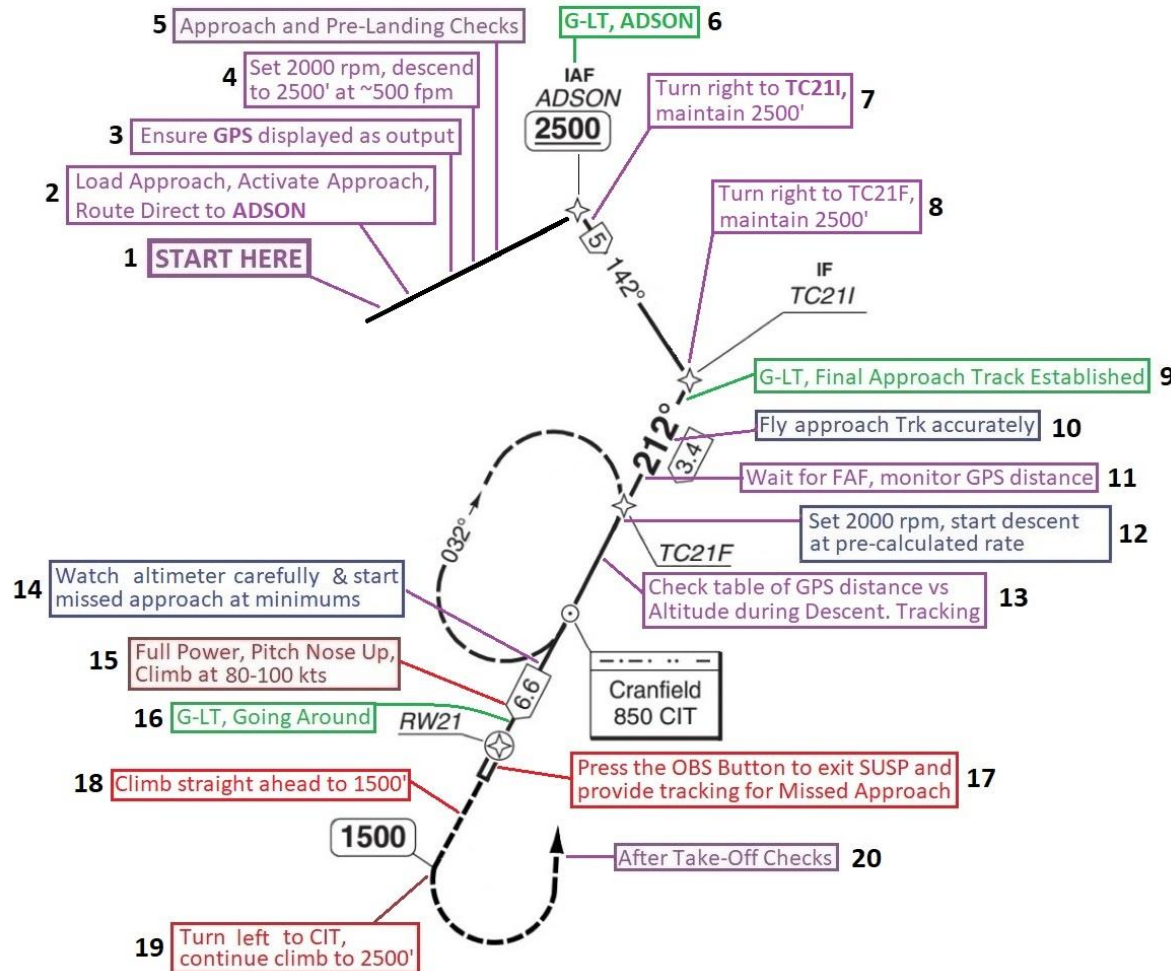
A/C: G-LT, RNAV approach Runway 21.

ATC: G-LT, Roger, standard missed approach.

A/C: Standard missed approach, G-LT.

TC21F (the FAF) is now the active waypoint. Track along the Final Approach Track (FAT) at 2500' and monitor the GPS distance. By 2 Nm from the FAF, the mode annunciation should have changed to APR.

EGTC RNAV 21 via ADSON



Without delay, set 2000 rpm, and descend at your pre-calculated rate of descent (typically 400-500 fpm). Remember that as you descend, the wind is likely to change and so your ROD target will change too. During the descent, every mile, check the table of GPS distance vs altitude to see if you are on the correct profile. If not, make a small correction to your ROD. Keep the tracking within half scale deflection. Keep an eye on the altimeter, to make sure you don't go below your minimums. Just before minimums, perform the go-around procedure: Full power, nose up, climb away at 80-100 kts

As you approach TC21F, it is time to descend.

Remember: You can only descend on the procedure if you are within half scale deflection of the final app track!

A/C: G-LT, Going around.

ATC: G-LT, Roger.

Press the OBS button on the GPS to remove the SUSP feature and allow GPS tracking for the missed approach. Then it is just a matter of flying either the published missed approach procedure, or the amended one if given. Once level, do not forget the after take-off checklist.

13. Return to Blackbushe:

For the return flight to Blackbushe, much will be the same. You are likely to transit back via WCO at 3000' in much the same way. Descending later on track to WOD to remain clear of controlled airspace. Remember FREDA and Icing checks.

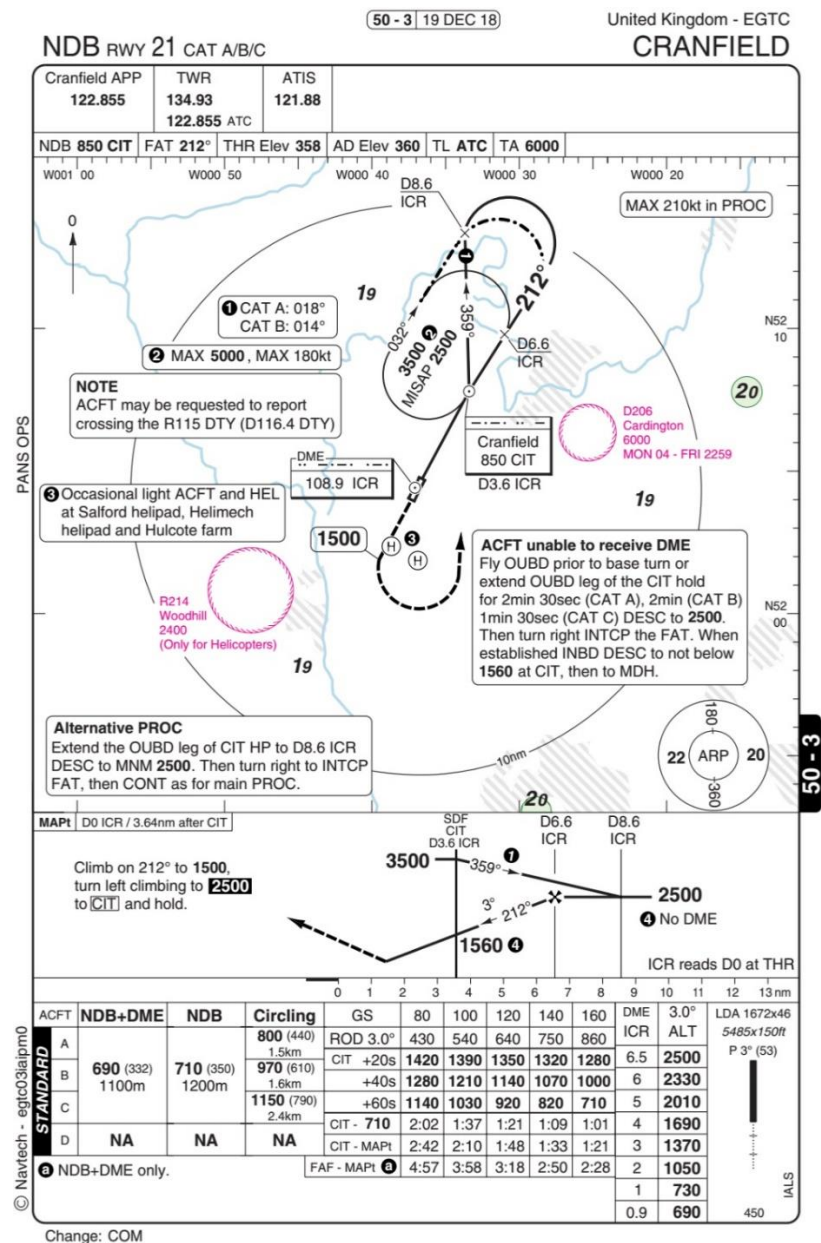
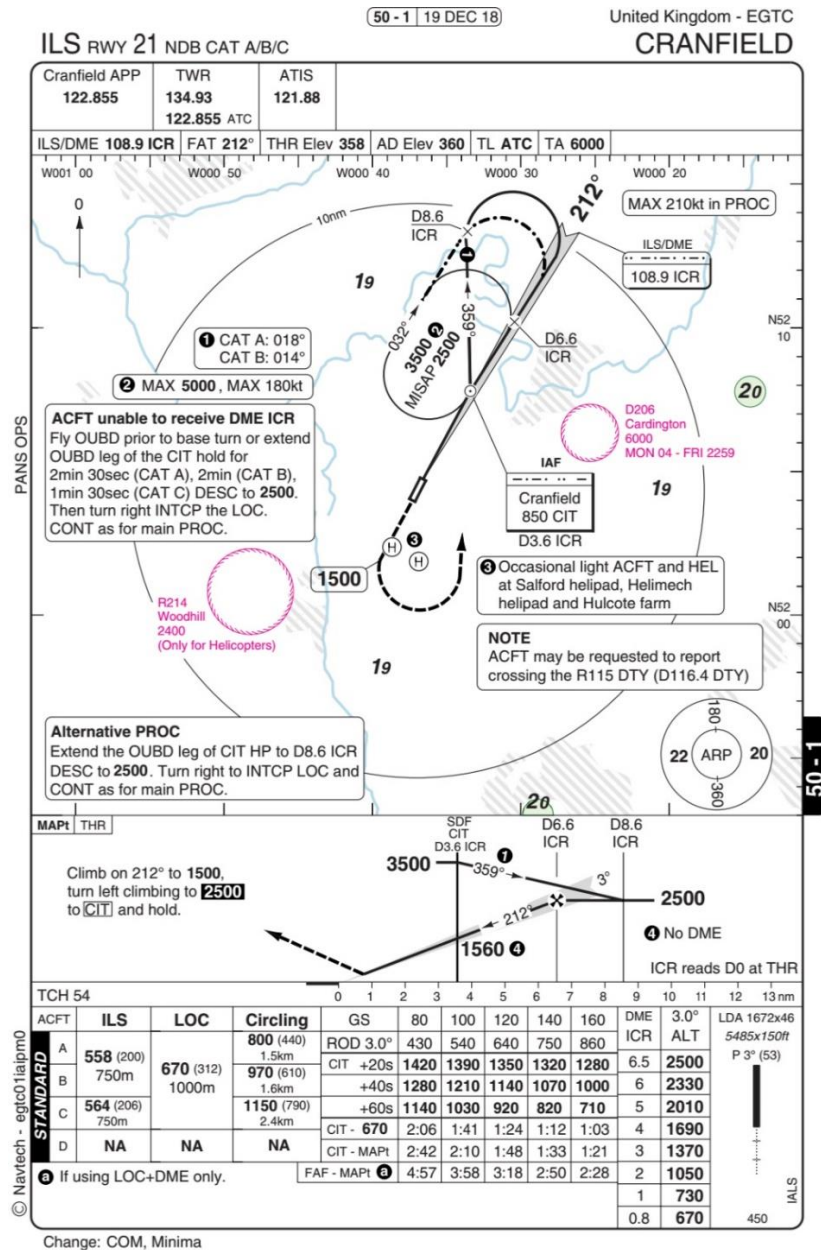
Changing over to Farnborough radar 125.250 approaching WCO for a basic or traffic service into Blackbushe.

14. Common Errors:

- 1: Forgetting to do the after take-off checks
- 2: No FREDA or icing checks
- 3: Poor altitude keeping in the cruise
- 4: Failure to ident nav aids before use
- 5: Lack of forward planning, resulting in arriving at CIT and not ready for the approach
- 6: Improper tracking outbound from the NDB
- 7: Failure to get the descent going on the outbound leg resulting in the a/c being high on profile.
- 8: Failure to monitor the DME outbound, resulting in a late right turn.
- 9: Loss of altitude in the base turn due to distraction.
- 10: Turning all the way to 212 in the base turn rather than an intercept heading. Can lead to poor intercept.
- 11: Failure to promptly intercept the localiser on first movement of needle.
- 12: High workload inbound can lead to altitude excursions or poor tracking.
- 13: Failure to monitor the DME can result in missing the FAF/FAP.
- 14: Improper NDB/ADF tracking towards the beacon.
- 15: Failure to maintain an appropriate ROD on final.
- 16: Failure to monitor the profile with the ALT vs DME tables.
- 17: Descending below DA/MDA.
- 18: Go-around manoeuvre not positive enough, resulting in level segment or even descent.
- 19: Failure to carry out approach checks or pre-landing checks. Instructor can tell by Fuel Pump position!
- 20: Failure to accurately navigate during the missed approach procedure.
- 21: Forgetting to do the after take-off checks
- 22: Trying to fly an RNAV approach with VLOC displayed on the GPS.
- 23: Not pressing the OBS button after the go-around following an RNAV approach, so that no GPS guidance is available for the missed approach.
- 24: The list is not exhaustive!!

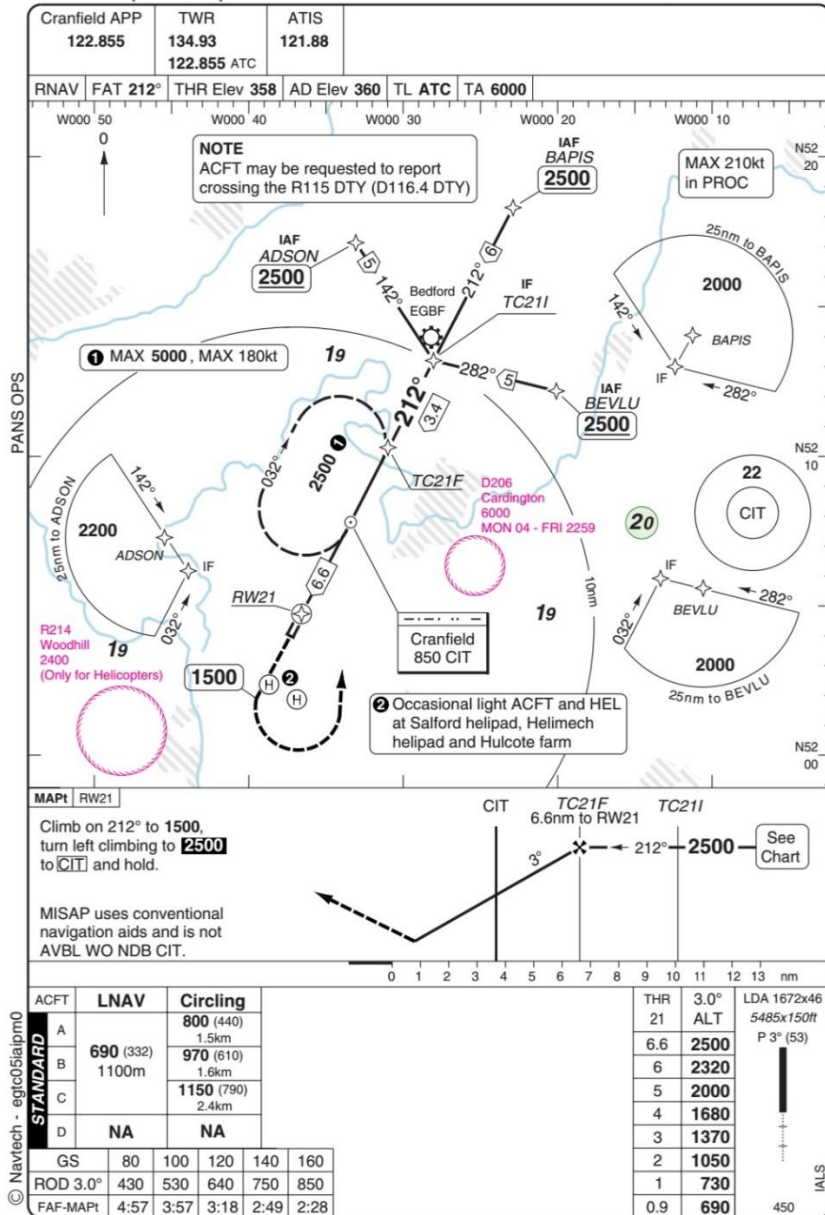
Appendix: Approach Charts

NOTE: These charts may not be up to date – always use latest charts.



RNAV (GNSS) RWY 21 CAT A/B/C

CRANFIELD



Change: COM

Part 5: Appendices

[Appendix 1: Instructional Techniques](#)

[Appendix 2: Long Briefings](#)

[Appendix 3 Pre-Flight Briefings \(Short Briefs\)](#)

[Appendix 4: FIC Groundschool](#)

[Appendix 5: Flight Training](#)

[Appendix 6: Instructor Competencies](#)

[Appendix 7: CAA Forms & Documents](#)

[Appendix 8: Blackbushe Aviation FI Course](#)

[Appendix 9: Pre-FI Course Assessment](#)

[Appendix 10: Typical Instructor Assessments of Competence](#)

Appendix 1: Instructional Techniques

Building Blocks

Several exercises can be broken down into smaller parts that can be mastered individually before being added together to create the finished product. Examples would be:

Turning, Climbing, Descending:

Entry. Maintaining. Rollout

Forced Landings:

Initial Actions. Troubleshooting. Field Selection. Mayday. Approach Planning etc

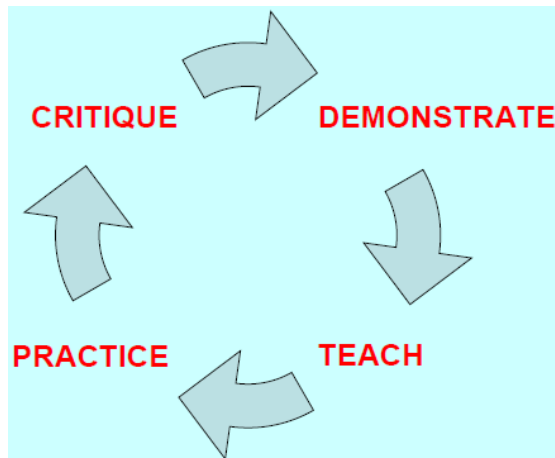
Circuits:

Take-Off. Climb. Downwind. Base. Final. Go-Around etc

Known to Unknown

There is a huge amount of material that the student must absorb in the process of flight training, so it always a good idea to start with something that they are familiar with. For example, before teaching levelling out from a climb, make sure they are happy maintaining a climb first. Then you can add-on the new skill to the old. Afterwards, you can go back and teach the entry.

Circle of Learning



A continuous loop, whereby the student learns by

- Watching a demonstration of the manoeuvre by the instructor.
- The instructor teaches that manoeuvre by breaking it down and patterning it.
- The student practices the manoeuvre.
- The instructor offers feedback, which may entail another loop.

Following Through on the Controls

In the early lessons, it can be beneficial for the student to place their hands and feet lightly on the controls while the instructor demonstrates a manoeuvre. This way they can gauge the amount and rate of input required before having a go for themselves. A similar method can be used by asking the student to place one finger on the throttle, for example during stall recovery demonstrations. Remember to tell the student to 'Relax' when you no longer need them to follow you through.

Work Cycles

There are several useful work cycles in basic flight training that can make life easier for both student and instructor. Do not hesitate to keep repeating them whenever reinforcement is needed.

SELECT – HOLD – TRIM:

Used when learning to trim the aircraft. It stops the student flying by trimwheel and makes them look outside.

LOOKOUT – ATTITUDE – INSTRUMENTS:

A very useful cycle used in Straight & Lev, Climbing, Descending and Turning. It forces the attention outside, and reminds them to glance at their instruments.

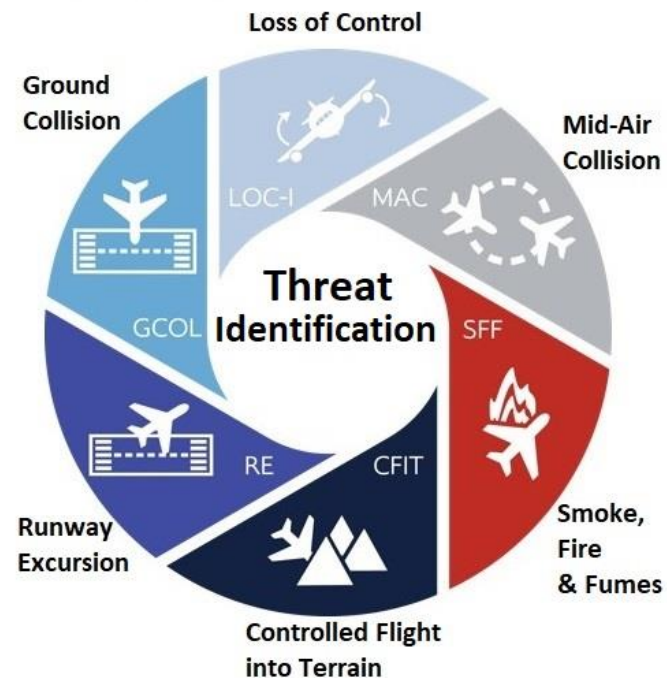
Threat & Error Management (TEM)

Examiners now want to see a thorough culture of TEM from all instructors and will expect frequent reference to be made to it. Not only should TEM be mentioned in ground briefings, but should then be referred to again in the air as relevant topics arise.

Make sure the student understands the difference between threats and errors: Threats are generally external to us and are present in our operating environment. Errors are usually internal to us – so human error and mistakes.

Threat Identification:

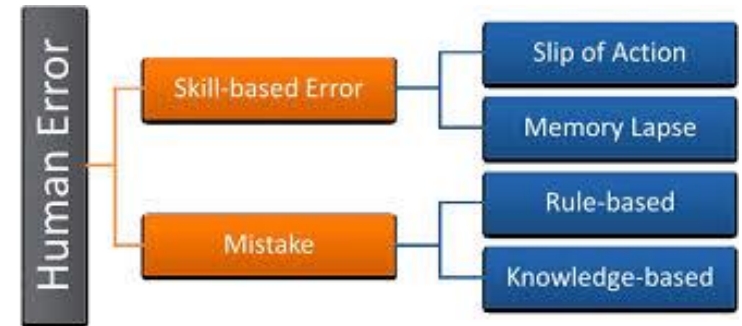
Try to elicit possible threats from the student either by asking open questions about the threats in the environment, or by guiding them with leading questions, or a model:



Identification of Errors:

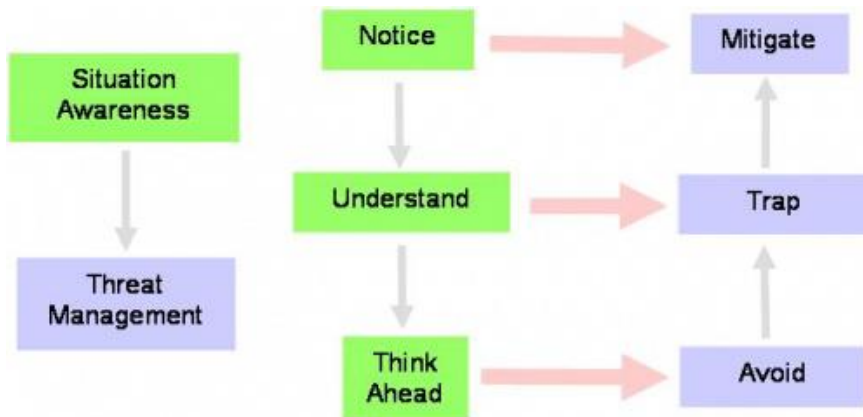
Depending on the experience of the student, it may be harder to identify errors. For example:

- Mis-set Altimeter or DI
- Airspace Infringement
- Forgetting to change fuel tanks
- Forgetting to carry out checks when required
- Forgetting to use Carb Heat on descent or forgetting to turn it off afterwards
- Joing for the wrong runway



Management:

Then when it comes to management of these threats and errors, it is important to suggest solutions. It is not enough to simply identify errors – they must be managed: avoided, trapped or mitigated. Once mentioned, try to revisit these threats and errors frequently throughout the brief and flight. TEM can thus permeate the whole instructional process rather than just be a monotonous list at the beginning of a pre-flight brief.



Negative Training:

Avoid the use of negative training: Always tell the student what you want him to do, not what you DON'T want him to do. He may focus on these items instead of the primary task.

In the air, this can result in a poor instructional technique known as 'Instruction by Fault Analysis' where the instructor does not 'teach' the student what to do, he merely tells him that he is doing it incorrectly. This must be avoided at all costs.

Another example of negative training is flying around with the stall warner sounding during slow flight.

Debriefing:

- Debriefing is a very important, and often underused, part of the teaching process. It is important to consolidate the learning objectives from the lesson before the student goes home and forgets. Just 5 minutes of debrief time can be invaluable.
- Make sure the student writes something down during the debrief. A student listening to a long list of important points without a pen and paper is not going to improve.
- A facilitative approach to debriefing is often a good idea, especially with more advanced students. Questions like the following can prove enlightening: How did you feel that went? What could you have done differently? What were your best and poorest parts?
- Do not make a debrief a long, chronological list of student faults. Pick one or two good points, and a few negative points and debrief those.

Appendix 2: Long Briefings

Introduction

A detailed explanation and discussion conducted by a qualified flight instructor and covering the major considerations of an air exercise. The normal length should be approximately 40-50 minutes and it may be given either as a tutorial to an individual student or as an informal lecture to two or more students.

Long briefings are frequently given to students on bad weather days, and there is a requirement in every instructor AoC to deliver one:

From CAA Standards Doc 10:

The Lecture or Long Briefing

- The instructor will be expected to give a long briefing or short lecture lasting approximately 30 to 40 minutes.
- The subject will be determined by the examiner and should be made known to the instructor not less than 2 days before the date of the assessment. Subject matter should be relevant and related to the appropriate instructional privileges and pilot training syllabus. Examiners should vary the subject matter so that it becomes a useful and challenging exercise for the instructor to research and prepare the lesson and not just repeat something that has been prepared and delivered as part of the course.
- Instructors should expect to give the long briefing or lecture to a small audience comprising the examiner and other student pilots or instructors. Instructors will be expected to demonstrate effective use of a variety of training aids and equipment. Therefore, prior preparation and practice with such equipment is essential.
- Sufficient time should be allowed at the end of the briefing or lecture for a reasonable number of questions from the audience. The examiner must ensure however, that this does not become a lengthy session or that the instructor is exposed to unreasonable questioning.

Typical Examiner Requested Long Briefs:

- The ILS system.
- The VOR and its use.
- RNP Approaches.
- Pick any recent light aircraft accident that occurred in IMC and analyse using TEM.

Useful Tips:

- Have a handout like the one below available to give to students either before or after the lesson. This will enable them to either follow you through as you give the lecture, or to consolidate with afterwards.
- Have printed pictures and illustrations available for students to look at. They will be drawn much more professionally than you can draw freehand on a whiteboard.
- Ask yourself the following questions: Why did you decide on that title? Why did you choose the illustrations you did? Why did you choose to present it in this way?
- During FIC training, it is a good idea to introduce each pre-flight briefing or lecture with a relevant accident. This will make it more real and give purpose to the exercise.

Common Faults:

- Avoid talking and writing on the white board at the same time with your back to the student(s).
- Make sure you use an aircraft model and keep it correctly oriented for the student's benefit.
- Make sure you include the student(s) in any briefing or lecture. Use eye contact and ask questions.

Example 1: IRI Long Briefing on Inadvertent flight into IMC

Jabiru Incident 17/08/21

Accidental Flight into IMC

Adam Byles 28/03/2022

Synopsis

G-CCPV

- Planned VFR flight entered cloud over high ground
- Became disoriented
- Exited cloud and regained control
- Forecasts not observed



Weather

- South-Westerly wind of 20kts
- Good visibility
- Overcast cloud at 3,500ft
- Highest elevation on route 1,053ft amsl
- Estimated 800ft between cloud and high ground when approaching
- Cloud suddenly descended?!?!



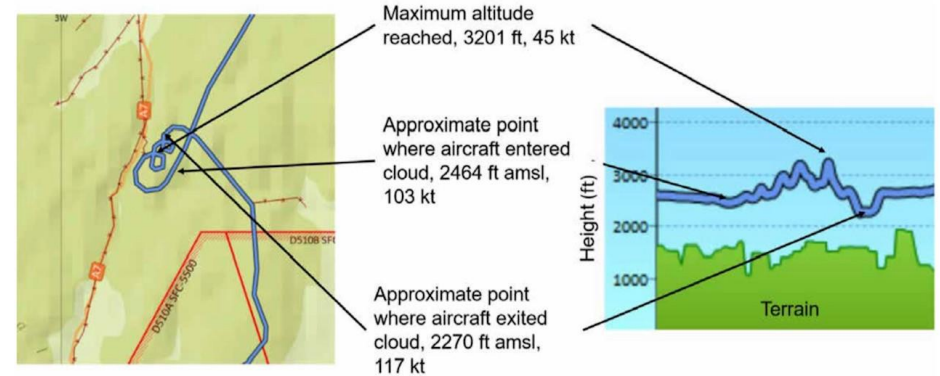
Once in IMC

- Attempted to climb using full power
- Became disoriented
- Felt he had stalled and lost control
- Three 360degree turns before emerging
- In cloud for 3-4 mins



Once out of IMC

- Pilot headed for only area clear of cloud
- Inadvertently entered the Spadeadam danger area
- Controller noticed and contacted pilot
- Controller told pilot lost control in IMC and coordinated with Spadeadam
- Pilot left danger area and intended to continue to Sleaford
- Eventually diverted to Kirkbride



What can we learn?

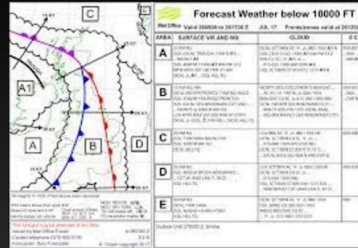
- Weather briefings
- Inadvertent flight into IMC
- Skill fade
- Importance of correct license with correct ratings
- Aircraft requirements

Inadvertent flight into IMC

- Proper planning should avoid this
- 14% of accidents are weather related
- Weather category has largest number of fatal accidents
- More than half are attempts to continue VFR into IMC
- Maintain control of the airplane
- Trust instruments not "seat of the pants"
- 180 degree turn
- Turn back!!!

Weather Briefing

- Skyway code version 3
- Met form 215
- TAFs and METARs are reported as AAL
- Try to get an overall picture for the weather
- Minimums for VFR flight below 3,000ft is?
- Clear of cloud and in sight of the surface, 1,500m vis
- Is it safe?
- Skyway code recommends >5km vis and >1,000ft cloud base (unless circuits)

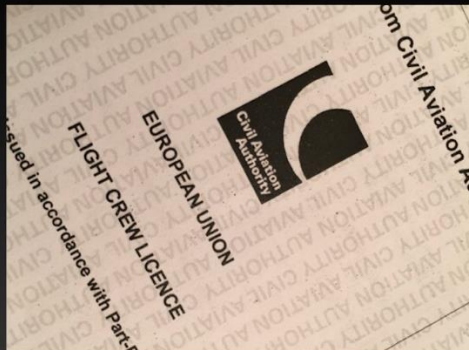


Skill Fade

- The decay of ability or adeptness over a period of non-use
- Reason for currency and recency requirements
- Just because you meet the legal requirement are YOU safe?
- Pilot of incident had done IMC training 20 years previously
- Would have needed to simulate IMC with a safety pilot or an instructor in a different aircraft
- Use it or lose it

Licenses and Ratings

- Pilot of Incident only held an LAPL
- No instrument qualifications can be added to a LAPL
- Only a PPL holder can add Instrument ratings
- Both IMC and IR ratings allow flight in IMC



Aircraft requirements

NCO.IDE.A.125

- Aircraft must be IFR certified
- Magnetic heading - time in hours, minutes and seconds - pressure altitude - indicated airspeed - vertical speed - turn and slip - attitude - stabilised heading - OAT
- Indication when power to gyro instruments is not adequate
- Means of preventing malfunction of airspeed due to condensation or icing
- In terms of navigation, basically whatever you need to navigate safely, no specific requirements

Appendix 3: Pre-Flight Briefings (Short Briefings)

Introduction

The student has already either had a long brief on the subject, or self studied, so the purpose is not to teach the theory, but to provide a punchy overview of the entire flight that is about to take place, including pre-flight and post flight duties. It should leave the student in doubt about who will be doing what during the exercise.

In this regard, I am always reminded of the following limerick:

A gay man who lived in Khartoum,
Took a lesbian up to his room,
They argued a lot,
About who should do what,
And how, and with what, and to whom.

Although undoubtedly silly, it does get to the crux of the point of a short briefing! Note, not once do the participants use the word 'we'. 'How' is the most important word of all.

The briefing normally includes a statement of the aim and brief allusion to principles of flight only if relevant. An explanation is to be given of the air exercises which are to be taught by the instructor and practised by the student during the flight. It should include how the flight will be conducted with regard to who is to fly the aeroplane and with what airmanship, weather and flight safety aspects which currently apply. The nature of the lesson will govern the order in which the constituent parts are to be taught.

The four basic components of the briefing will be:

- 1. The aim*
- 2. Principles of flight (briefest reference only)*
- 3. Threat & Error Management TEM.*
- 4. The air exercise(s) what, and why and how and by whom.*

Preparation

Make sure everything you need to deliver the pre-flight brief is available. There is nothing worse than an instructor having to leave the room to look for models or other aids. Even if this means delaying the start of the briefing, get everything together and ready, including the notes you will be using during the briefing.

Before starting the briefing, write the first part of the briefing on the board. Leave marks and spacers where you will write the remaining text, otherwise crowding can occur.

Ex 9.1: Level Turning

29 NOV 20

Aim: To learn to turn, in level flight, at 30° angle of bank onto various headings.

TEM:
M:

Airex: 1: Revision:

3: Entry

2: Maintaining

4: Rollout

5:



6:

Do this in silence. Remember, NEVER talk to the student(s) while your back is turned and you are writing.

For example in EX9.1 you could prepare this part and lead the students through what follows.

Writing in CAPITALS rather than *cursive script* can be more legible to a class, depending on how neat your writing is. But avoid too many capitals.

Do not under-estimate the effectiveness of underlining something.

Do not be afraid to use abbreviations on your board briefing, as long as they have been explained: eg: clb for climb, Att for Attitude etc. Little diagrams are helpful too such as a mini balance ball  for balance, or pair of eyes  for lookout. This will make the board look more appealing than one covered with words.

Use colour consistently, with RED being used for important things or danger.

Build Up The Brief

From Exercise 6 onwards, it can be a good idea to address the question as to WHY we are doing each lesson, as it is not always obvious to the student. 'Why are we learning to fly S&L?' 'Because when we are flying somewhere far away, the majority of our flying will be S&L.'

Make sure the student knows what the difference between a threat and an error is. Then, elicit the threats and possible errors from the students that you want, by guiding your questions: eg: 'what possible threat could we have on a busy weekend in the local area?' or 'what possible errors could we make when using the altimeter?' Just asking 'what threats are there today' could create all sorts of answers, many of them not relevant to the direction you want to lead them. Then in the 'Management' row, add solutions to these threats and errors. It is not enough to simply identify errors – they must be managed: avoided, trapped or mitigated. Once mentioned, try to revisit these threats and errors frequently throughout the brief and flight. TEM can thus permeate the whole instructional process rather than just be a monotonous list at the beginning of a pre-flight brief.

Outline how the flight will begin and who will do what to get the aircraft airborne. Use the words I and YOU (see below).

The use of colour on the board is important. Do not write everything in the same colour. Have a system. **Red is useful for important or dangerous things.**

Then build up the rest of the board briefing by using building blocks. In this case begin with the 'Maintaining' building block. Then move onto the 'Entry' etc. Remember talk to the students, then turn and write in silence, then turn back and talk.

Remember to ask question regularly to prevent 'instructor drone-on'. An interactive and facilitative style is much preferable.

Talk about **HOW** things will be done, not just what will be done: 'I will enter the turn using co-ordinated input on the rudder and ailerons.'

Although it can be difficult at times, avoid the use of **WE** as much as possible. Use **I** and **YOU**. For example: 'I will fly the aircraft to the local area, where you will carry out a FREDA check. Then I will demonstrate how to carry out a HASELL check. You will then have a chance to practice.'

Make sure you use the word 'Teach' as appropriate. Many instructors say they will demonstrate a manoeuvre then the student will practice. There needs to be an element of teaching, after all, that is what an instructor does! Remember the Circle of Learning.

Avoid the use of negative training: Tell the student what you want him to do, not what you DON'T want him to do. He may focus on these items instead of the primary task.

Use of Visual Aids

Try to incorporate models and visual aids as much as possible. Always use the aircraft model for all pre-flight briefings, especially when under assessment.



When holding the aircraft model, always orient the model so that it appears the correct way round for the student rather than the instructor.

Which of these instructors has mastered the technique?



Actual aircraft instruments make very compelling teaching aids:

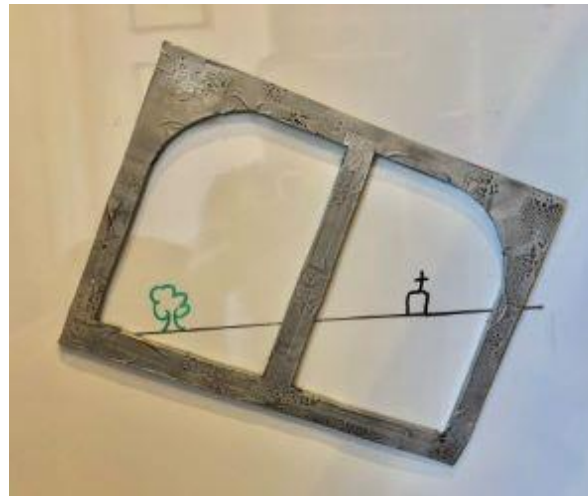


But having blown up diagrams of cut-away instruments allows you to explain their operation in more detail.

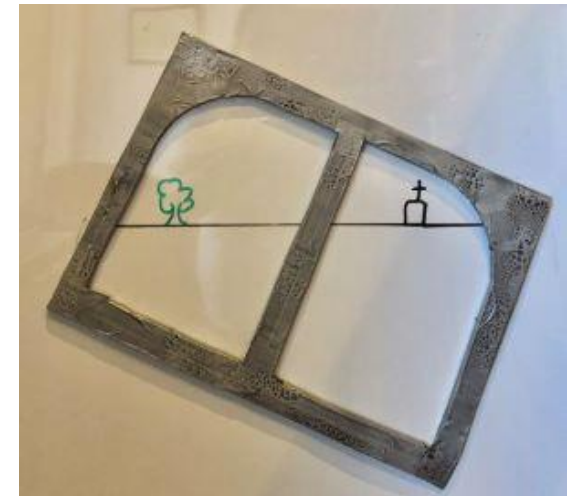
An aircraft window cutout can be used very effectively to show changing attitudes without having to redraw:



Straight & Level



Level turn to the right



Descending turn to the right

These can be made easily from cardboard, and if your whiteboard is magnetic, small magnets can be attached to the cutout to make it stay in place.

When showing changes in attitude using the cutout, be sure to exaggerate the changes to make them more visible to the student.

Appendix 4: FIC Groundschool

Teaching & Learning

There is a requirement for the trainee instructor to have a minimum of 25 hours of **Teaching & Learning** Groundschool. A suggested breakdown is as follows:

<u>1. The Learning Process</u>	
Motivation for Learning	Establish why the student wants to learn. It makes a huge difference to their performance if they actually want to learn. Common motivations include: Self-improvement, Career goal, Personal achievement, Financial reward, Desire to please family or employer.
Incentives to Learning	Learning is always easier if there is some reward at the end. Find out what the student is looking forward to. Common incentives include: Self-improvement, Career advancement, Personal improvement, Financial reward, Desire to please family.
Obstacles to Learning	Find out if there are any special needs. Medical, for example dyslexia is common in trainee pilots. Disability, airsickness, vertigo, phobias. Finance and time availability can also be huge obstacles. Aptitude, or lack of aptitude can also be a considerable obstacle. Remember, students need to be physically, mentally and emotionally ready to learn.
Learning Methods	Everyone learns in a different way: Some students are happy to self-study using on-line resources and books. Some students will need more intensive one on one teaching. Most will be in the middle. Some students like to understand everything and relish formulae. Others are happy to accept certain facts and move on. Some students need visual aids and lack the ability to create mental models easily. Others are good at this.
Rates of Learning	Each student will have a natural pace of learning. Establish that pace early on and don't try to push them to accelerate too much. This is easy for one on one learning, but in a group can cause problems.
Perception & Understanding	Students will find different topics harder or easier than you did when you were learning. Remember everyone is different and learns in their own way. It is your job to harness the student's ability.
Memory and its Application	People remember things in different ways. You may need to use inventive methods to solidify a concept or routine. Acronyms can be a good way. As can cockpit flows. Others prefer to count the number of actions.
Habits & Transfer	Remember, the student will watch you like a hawk in the early days, so it is vital that you don't let them mimic any bad habits that you may have. Strive to uphold the highest standards at all times.

2. The Teaching Process

Elements of Effective Teaching	<p>What makes a good teacher? Think of examples from your and their history. Why are some teachers better than others?</p> <p>Enthusiasm: Keen to get on with the job and do it in a positive manner. Enthusiasm is contagious. On the other hand, a lack of enthusiasm will sow the seeds for similarly negative attitude in your students.</p> <p>Patience: Many of your students will need to have procedures and techniques explained to them time and time again. Even though you may feel that you are 'banging your head against a brick wall' you must remain patient. Patience is especially needed when dealing with inexperienced, forgetful or underconfident students.</p> <p>Sincerity: Takes an interest in his student's progress both on the ground and in the air. Having an open and honest attitude with the student which will gain respect and confidence. Lies, half-truths and false write ups will undermine trust, destroy the instructor/student relationship and obstruct the student's ability to learn.</p> <p>Adaptability. An instructor must be adaptable or flexible as every student is different and requires a different approach.</p> <p>Fairness: An instructor never shows favouritism - do not be over friendly with one student and distant with another.</p> <p>Honesty: Instructors never bluff - if you need to discipline a student or threaten to take action, then do it. Do not make threats that you have no intention of carrying out.</p> <p>If an instructor does not know the answer to a question, then he says so.</p> <p>An instructor admits to his own mistakes. He never blames others and to admit that 'you were right and I was wrong' does much to improve the relationship with your student.</p> <p>Considered: An instructor does not make quick 'on the spot' judgements. When assessing a flight, he should take some time to think it over so that good points as well as bad points are considered. A balanced view will give an assessment that is valid and reliable.</p> <p>Decisive: They consider all the factors so that they make correct decisions and then act upon them.</p> <p>Interested: A good instructor is interested in his students and lets them know this by taking an interest in their backgrounds, problems, achievements and ambitions.</p> <p>Motivating: Good teachers tend to be able to motivate well. So, the key to being an effective teacher, is often how to motivate the student (see the Learning Process).</p>
Planning of Instructional Activity	<p>It is important to have a well-structured plan for lessons and for the overall course. This takes time and will involve the preparation of course content and teaching aids.</p> <p>Avoid having multiple sessions of the same kind of instruction - mix up between flights, lectures, practice sessions and hands-on learning if possible.</p>
Teaching Methods	<p>There are many ways to teach, just as there are many ways to learn. Which methods are used will in part be decided by the instructor, and in part by the needs of the student.</p>
Known to Unknown	<p>See Appendix 1: Instructional techniques</p>
Use of Lesson Plans	<p>Rather than make things up as you go along, it is much better to have a lesson plan which will keep you on the correct track. Use pre-prepared documents and teaching aids.</p>

3. Training Philosophies	
Value of a Structured (approved) Course of Training	<p>A structured course of training is always better for everyone - The student knows what is coming next, and the instructor can use it to keep him on track.</p> <p>If training at an ATO or DTO, there should already be an approved course of training for most courses. Outside such an establishment, the instructor needs to have a framework. Time should be taken to work out a syllabus that can be followed. Basic topics can then be expanded by group discussion or examples from real life instruction. A good FIC instructor will always have a good supply of stories to share.</p>
Importance of a Planned Syllabus	<p>Flying training is a complex business, and the well-defined syllabus that has been developed over the years, helps everyone understand the path that needs to be followed.</p> <p>Use either a commercially available course book, or devise one of your own and distribute it to the students beforehand.</p>
Integration of Theoretical Knowledge and Flight Instruction	<p>There is no point trying to explain something in the air or in a short briefing if the student has not already studied that concept in greater detail. As such, it is important to make sure the theoretical knowledge and the air instruction are synchronised.</p> <p>Find out if the student has done the required reading before the flight lesson. If not, it may be appropriate to cancel the flight and do ground school. This will ensure that next time he is better prepared.</p> <p>It is important that the theoretical and practical sides of the training run roughly concurrently – If the student has already read a certain chapter of the book, it makes the lesson much more relevant.</p>
3a. Instructor Standards	
Appearance & Conduct	The instructor at all times must appear smart, well groomed and professional. A sloppy or dishevelled appearance is indicative of poor personal standards and attitude towards the job.
Personal Habits	Personal habits, such as scratching, picking, mumbling etc detract from the student's experience and should be minimised where possible as they are distracting.
Food & Cleanliness	An instructor should avoid eating smelly or gas-producing foods, such as garlic or beans, in the hours before instructing. Remember you will be sharing a very small space together!
Personal Standards	The instructor should strive for the highest standard of tuition and aircraft operation throughout. He should keep himself up to date with the latest rules and regulations, as well as aircraft and flying school procedures.
Professional Standards	All instructors at a school should be standardised – ie they should all teach in the same way. This allows them to share students easily. The method your ATO uses to teach each lesson will be in the relevant ATO manual. Most ATOs maintain standardisation by regular standards meetings where such matters are routinely discussed.

4a. Techniques of Applied Instruction - Theoretical Knowledge – Classroom instruction Techniques:	
Use of Training Aids	<p>There are a great many training aids that should be used to assist in instruction: Whiteboard, OHP, PowerPoint, Aircraft models, cockpit window cut-outs, real aircraft instruments, charts, computers etc. The importance of these visual aids cannot be overstated, and no pre-flight briefing should be given without the aircraft model being close at hand. Audio-visual presentations, such as short videos or photographs can make a theoretical knowledge lesson come alive.</p> <p>The CAA still value the ability of an instructor to deliver a briefing on a whiteboard.</p>
Group Lectures	If there are several students at around the same stage in training, a group lecture can be a good way to reduce time for the instructor, but more importantly, the interaction between several students can generate positive learning benefits.
Individual Briefings	Sometimes, a one-on-one briefing can be more valuable, especially if the student has a special need or is struggling/racing ahead.
Student Participation/Discussion	As with Group Lectures, above, student participation and discussion can be a very useful tool in learning. Observing students discussing a topic can tell the instructor the level of understanding that has been gained.
4b. Techniques of Applied Instruction - In-Flight – Airborne Instruction Techniques:	
The Flight/Cockpit Environment	<p>The cockpit environment in flight is alien to most students, and has a number of limitations when it comes to teaching and learning.</p> <p>The student will be under a workload – possibly overloaded, or may be anxious.</p> <p>The side by side seating and lack of eye contact poses challenges, which need to be overcome.</p> <p>The lack of a ‘pause button’ means that the instructor cannot go into in-depth explanations during flight. This is best dealt with by making a note on the kneeboard for later discussion. But do not forget to return to the subject after the flight.</p>
Techniques of Applied Instruction	<p>Nothing in the airborne lesson should be new to the student. Everything should have been discussed on the ground in either the long briefing or the short briefing.</p> <p>Any airborne debriefing should always involve the instructor taking control first, to allow the student to concentrate fully. Some students feel that the instructor taking control is an admission of failure on their part. A good way to do this is to say ‘I have control, just so I can explain this to you’.</p>
4c. Techniques of Applied Instruction - Post-Flight:	
Debrief	<p>The importance of a good debrief cannot be overstated. An effective debrief cannot be conducted in the air, and it is vital that a debrief is carried out after flight to ensure the relevant messages are driven home. The debrief need not take very long, but it is a critical, and all too often forgotten part of the lesson. The debrief should include any notes you made during the flight for discussion later.</p> <p>Make sure the student takes notes during a debrief or the chances are, the information will be lost.</p>
4d. Techniques of Applied Instruction - In-Flight Judgment and Decision Making	
Judgment and Decision Making	<p>It is more or less impossible to teach judgement and decision making effectively in the classroom. The best way is to teach by example. Whenever opportunities arise during the flight (weather or technical situations), try to involve the student and allow them to see how decisions are made and solutions are found.</p> <p>This sets the seed for the teaching of CRM.</p>

5a. Student Evaluating & Testing - Assessment of Student Performance:

The Function of Progress Tests	Progress Tests are important to allow both the student and instructor to gauge the student's performance. As a fundamental tenet of instruction is 'to take the student from where he is to where he needs to be', we need to know where the student is in order to be able to do this effectively. Progress tests can be written or practical.
Recall of Knowledge	The regular asking of questions during ground and flight instruction can give a good idea of the student's factual knowledge. The Law of Exercise. This law states that things most often repeated are best remembered. Frequently asking your student to give the answer to an important question will help him to remember it when needed. For example, every time he lines up for take-off, ask him the demonstrated crosswind. Every time he starts the engine, ask the starter duty cycle.
Translation of Knowledge into Understanding	More probing questions will be needed to make sure the student's knowledge of facts has been fully understood. Many students are good at remembering facts, but they need to be understood. For example – the student knows the crosswind limit is 13 kts. But, when the tower gives the wind for take-off, fails to understand whether or not this limit has been exceeded.
Development of Understanding into Actions	The most advanced form of learning allows the previously learned facts and their understanding to be translated into actions. For example after a simulated cabin fire in flight, the student has learned that turning off the Battery Master Switch is an item on the checklist. He is able to recall and understand this fact. However, this fact in itself is only the beginning. Once he has translated this knowledge into understanding, he should be able to realise that he has now lost the use of the radio transponder, and any electrically operated flaps. The final stage is developing this understanding into actions – the student then tells you he will have to join the airfield non-radio and perform a flapless landing.
The Need to Evaluate Rate of Progress	Every student learns at their own rate, and this rate needs to be understood by both parties. Sometimes the rate may be so slow that a serious conversation is needed. Sometimes, an enthusiastic student wants to race ahead. This also needs to be managed.

5b. Student Evaluating & Testing - Analysis of Student Errors:

Establish the Reason for Errors	Students rarely make errors deliberately. There is always a reason why errors are made – it may be poor instructional technique or a failure to grasp a concept. The key to improving performance is identifying the reasons why an error is made. For example, on the ILS, the student always goes high on the glide slope at the FAF. The reason turned out to be that he always selected flap at the FAF. Knowing the reason can help prevent its recurrence by forewarning.
Tackle Major Faults First, Minor Faults Second	It is unrealistic to try to solve all the problems in a flight by a single debrief. It is important to prioritise the major faults first and fix them before tackling the smaller ones.
Avoidance of Over-Criticism	If too much criticism is levelled at the student, he may become despondent and this may result in demotivation. As above, tackle the major problems first (or in isolation).
The Need for Clear Concise Communication	As in all elements of flight instruction, communication is the key. The student must always understand what is required of him, and how his performance fared.

6. Training Programme Development

Lesson Planning	Good lessons are not made up as the instructor goes along. They have well defined aims, well thought out content, with various visual aids, and a summary at the end.
Preparation	Spend time preparing the material, including any handouts or visual aids. Not only does it make your teaching job easier, but the student feels that a more professional job is being done.
Explanation & Demonstration	Be ready to explain concepts in more than one way if a student struggles to grasp it the first time – just because you understand that explanation, doesn't mean your student will.
Student Participation & Practice	Asking of questions and practical exercises will allow you to ascertain if the student understands. Less outgoing students may just nod rather than admit they don't understand something.
Evaluation	Make sure you (and your student) are happy with the student's progress before moving on to the next subject.

7. Human Performance and Limitations Relevant to Flight Instruction

Physiological Factors	A student who is tired, hung-over or airsick will not be in a good place to learn. Get the student used to assessing his own condition before deciding to fly.
Human Information Processing	Make sure the student does not become overloaded during lessons. Often, the instructor will want to move on to the next part before the student has fully assimilated the previous section. This is counter-productive.
Behavioural Attitudes	Monitor student attitude and behaviour to see if any negative trends are developing. If they are, address them early on so that there is time to change.
Development of Judgment & Decision Making	While training your student, if decisions have to be made, involve the student – that is how he will learn to make decisions himself. Explain to him why you made the decisions you did. This is how CRM is best taught.

8. Hazards Involved in Simulating Systems Failures and Malfunctions in the Aeroplane During Flight

Selection of a Safe Altitude	Have minimum altitudes for hazardous activities such as stalling, spinning, engine shutdowns, EFATO etc. They may be set by the training establishment, or you may need to set your own. Never be tempted to go below them as this sends the wrong message to the student.
Importance of 'touch drills'	Make it clear to the student whether the failure and subsequent drills will be real or touch drills only. Certain items can still be moved during touch drills – throttle, fuel pump etc.
Situational Awareness	Introduce the term 'Situational Awareness' and stress that it applies to Geographical environment as well as checklist status and aircraft operational state. Consider such tools as 'Plane-Path-People' to help develop awareness.
Adherence to Correct Procedures	Always use the correct procedures, and do not hesitate to refer to the appropriate checklist in flight. This sends the message to the student that it is ok to do this himself.

9. Training Administration

General:	<p><u>Flight/Theoretical Knowledge Instruction Records:</u> The importance of the instructor making such student records as soon as possible after the event.</p> <p><u>Log books:</u> The need to keep both instructor and student log books up to date.</p> <p><u>Flight/Ground Curriculum:</u> The instructor should know the curriculum and know where to find the details.</p> <p><u>Study Material:</u> The importance of knowing what material is available for instruction and study.</p> <p><u>Official Forms:</u> The instructor should have a good knowledge of the required CAA and ATO/DTO forms.</p> <p><u>AFM/PoH:</u> The instructor should be familiar with these publications and encourage the student to study them.</p> <p><u>Flight Authorisation:</u> The instructor and the student should both be familiar with flight authorisation procedures. The student should be encouraged to take responsibility for this.</p> <p><u>Aircraft Documents:</u> The instructor should be familiar with these documents and encourage the student to study them.</p> <p><u>Licence & Rating Requirements:</u> Both instructor and student should understand the privileges and limitations of their licencing documents.</p>	
The IRI(A)'s Responsibilities:	<p><u>Training standards:</u> A high level of personal standards should be maintained by the instructor.</p> <p><u>Standardisation:</u> A high level of commonality with other instructors should be maintained.</p> <p><u>Preparation for Skill Tests/Proficiency Checks:</u> Although not primarily there to teach the student to pass the test, the instructor should be fully aware of the requirements of the relevant test the student is being prepared for.</p> <p><u>Training Effectiveness:</u> The instructor must consider how effective his instruction is, and if necessary, seek to address this.</p> <p><u>Examination & Fault Analysis:</u> The instructor must be effective at analyzing student faults before he can correct them.</p> <p><u>Development of Student Responsibilities:</u> The instructor must strive to encourage the student to take responsibility from an early stage of training – PPR, walkarounds etc. Not only does this reduce workload on the instructor, but it makes the student feel empowered.</p> <p><u>Instructor Continuity Training:</u> The instructor role is continually changing and both theoretical and flying skills need to be kept up to date.</p>	
FCL IRI(A):	<p>Introduction</p> <p>General Information</p> <p>Privileges</p> <p>Experience Requirements</p> <p>Skill Tests & Proficiency Checks</p> <p>Revalidation/Renewal of Ratings</p>	<p>The instructor must have a good working knowledge of all of these pieces of legislation, and keep up to date with them as they change.</p>

Appendix 5: Flight Training

1: General Considerations:

During FIC training, the trainee instructor may never have done 2 things that will be asked of him:

- Fly from the right hand seat. He may be particularly anxious about landing from the unfamiliar seat. Make sure he is able to land satisfactorily from the other seat before sending 2 trainees off together on a mutual. There are other difficulties in operating from the other seat, such as parallax errors. For example, if the student in the LHS sets 2300 rpm, it may look like 2200 rpm when viewed from the RHS. The trainee instructor must get used to this and take this into account. Similarly with other instruments.
- Spinning. The fact that many trainee instructors have never done spinning before, may mean a few extra hours are needed to train this thoroughly.

2: Give and Give-Back:

The in-flight section of the FI course follows a very specific format. It involves the FIC instructor giving the lesson to the trainee instructor as though he were a PPL student. This is done in real time and will involve the trainee instructor practicing what he has been shown.

Once this is complete, the FIC instructor will ask the trainee instructor to give the lesson back to him, he now assuming the role of the PPL student. This 'give back' should again occur in real time, and the FIC instructor may make typical student errors when invited to practice. Afterwards, feedback may be offered to the trainee instructor which may involve a repeat of the give and give back.

Once this, initially odd, procedure has been learnt, it is repeated for all the exercises in the syllabus and soon becomes second nature.

Some FIC instructors give the whole lesson in one go, and then expect the 'give back' in one go also. However, a better, and more practical method is to break down the lesson into bite-sized chunks. An example for Ex10a(i) follows:

'Text in blue' indicates the FIC instructor talking to the supposed PPL Student.

'Text in green' indicates the FIC instructor talking to the Trainee Instructor.

1. The FIC instructor starts by demonstrating only, with no follow through, of the approach to a clean stall including HASELL Checks. 'I have control. I am now going to demonstrate the full stall and standard stall recovery. I just want you to watch what happens – we will break it down later'. He carries out a HASELL check and demonstrate in silence a full clean stall with SSR. 'So, by the end of this lesson, you should be able to do that.' 'Now, I'd like you to give that back to me.' The trainee instructor now repeats that chunk of the lesson.
2. 'I have control. We are now in the local area and ready to start the exercise. Remind me what we must always do before practicing a stall.' 'That's right a HASELL check. So our Height is 3000', which is sufficient to recover by 2000' agl. Airframe: We are clean, which is what we want for this stall. Security: I am secure, are you? No loose articles in the aircraft. Engine: Ts & Ps are checked OK, and I will put the Carb Heat on for 10 seconds. Location: We are not above any Airfields, Built-Up areas, Controlled Airspace or Cloud, or Danger Areas. Now the Lookout. I will do a 90 degree turn to the left followed by one to the right. Give me a hand looking for other traffic, please.'

'OK, so we are now ready to start the approach to the stall. No need to follow me through, just watch my demonstration. So, I begin by putting on the Carb Heat to protect the engine. I close the throttle, keeping the aircraft straight with rudder. I am preventing the nose from dropping by holding the back pressure. I am trimming some of it off. Still holding the back pressure.' You may wish to leave some power on to prolong the deceleration and allow you to better point out the signs. 'Notice the high nose attitude. I can remove this symptom of the stall by simply moving the control column centrally forwards – see. But let's say I don't do that – I keep holding the nose up. The next thing I notice is the reduced airspeed. Again, I can remove this symptom of the stall by moving the control column centrally forwards – see. But let's say I keep holding the nose up. The next thing I notice is the sloppy controls – have a feel. Again, I can remove this symptom of the stall by moving the control column centrally forwards – see. But let's say I keep holding the nose up. The next thing I notice is the stall warner sounding. Again, I can remove this symptom of the stall by moving the control column centrally forwards – see. At any time that any of these symptoms of an approaching stall occur, I can remove them by just moving the control column centrally forwards.' At this point, move the control column centrally forwards to remove all signs of the approaching stall.

3. Recover the aircraft to 3000' again. 'Now I'd like you to have a go at carrying out a HASELL check and setting the aircraft up for the approach to the stall. I want you to note each symptom and when you have seen all the symptoms, remove them by moving the control column centrally forwards. You have control.' The trainee instructor now practices this as though he were a PPL student.
4. 'I now want you to give me that section back.' The trainee instructor now gives this section of the lesson back to the FIC instructor. When it is the FIC's turn to practice, he may make a mistake or two, such as forgetting to carry out a HASELL check. This should be addressed by the trainee instructor. The FIC will then offer feedback. Then the next section.

NOTE: This can get a little confusing at times. The trainee instructor can lose track as to which role he is supposed to be playing. One way of making this easier is to assign a name to the supposed PPL student. For example, if the trainee instructor's name is Mark, he may choose David as his PPL student name. The FIC instructor's name may be Steve, but chooses Jimmy when he is a supposed PPL student. This way, when the FIC instructor says 'OK, David, I want you to show me a stall', the trainee instructor immediately knows which role to assume.

See the previous lesson section using this method:

1. Steve starts by demonstrating only, with no follow through, of the approach to a clean stall including HASELL Checks. 'OK, David, I have control. I am now going to demonstrate the full stall and standard stall recovery. I just want you to watch what happens – we will break it down later'. He carries out a HASELL check and demonstrate in silence a full clean stall with SSR. 'So, David, by the end of this lesson, you should be able to do that.' 'Now, Mark, I'd like you to give that back to me.' Mark now repeats that chunk of the lesson. 'OK, Jimmy, I have control. I am now going to demonstrate the full stall and standard stall recovery. I just want you to watch what happens – we will break it down later'. He carries out a HASELL check and demonstrate in silence a full clean stall with SSR. 'So, Jimmy, by the end of this lesson, you should be able to do that.'
2. 'I have control. We are now in the local area and ready to start the exercise. David, remind me what we must always do before practicing a stall.' 'That's right a HASELL check. So our Height is 3000', which is sufficient to recover by 2000' agl. Airframe: We are clean, which is what we want for this stall. Security: I am secure, are you? No loose articles in the aircraft. Engine: Ts & Ps are checked OK, and I will put the Carb

Heat on for 10 seconds. Location: We are not above any Airfields, Built-Up areas, Controlled Airspace or Cloud, or Danger Areas. Now the Lookout. I will do a 90 degree turn to the left followed by one to the right. Give me a hand looking for other traffic, please David.'

'OK, so we are now ready to start the approach to the stall. No need to follow me through, just watch my demonstration. So, I begin by putting on the Carb Heat to protect the engine. I close the throttle, keeping the aircraft straight with rudder. I am preventing the nose from dropping by holding the back pressure. I am trimming some of it off. Still holding the back pressure.' You may wish to leave some power on to prolong the deceleration and allow you to better point out the signs. 'Notice the high nose attitude. I can remove this symptom of the stall by simply moving the control column centrally forwards – see. But let's say I don't do that – I keep holding the nose up. The next thing I notice is the reduced airspeed. Again, I can remove this symptom of the stall by moving the control column centrally forwards – see. But let's say I keep holding the nose up. The next thing I notice is the sloppy controls – have a feel. Again, I can remove this symptom of the stall by moving the control column centrally forwards – see. But let's say I keep holding the nose up. The next thing I notice is the stall warner sounding. Again, I can remove this symptom of the stall by moving the control column centrally forwards – see. At any time that any of these symptoms of an approaching stall occur, I can remove them by just moving the control column centrally forwards.' At this point, move the control column centrally forwards to remove all signs of the approaching stall.

3. Recover the aircraft to 3000' again. 'Now, David, I'd like you to have a go at carrying out a HASELL check and setting the aircraft up for the approach to the stall. I want you to note each symptom and when you have seen all the symptoms, remove them by moving the control column centrally forwards. You have control.' David now practices this.
4. 'OK, Mark, I now want you to give me that section back.'" Mark now gives this section of the lesson back to Steve. When it is Jimmy's turn to practice, he may make a mistake or two, such as forgetting to carry out a HASELL check. This should be addressed by Mark. Steve will then offer feedback. Then the next section.

3: Simulated Emergencies:

During FIC training as well as all other forms of flight training, there is a need to simulate emergencies. It is important that these 'simulated' emergencies are managed carefully so that they do not in themselves become real emergencies.

Types of Emergency:

There are two basic types of simulated emergency:

- **Life-threatening emergencies** such as engine fire, engine failure, pilot incapacitation.
- **Non-Life-threatening emergencies** such as radio failure, electrical failure, getting lost.

Simulated Engine Failures:

There are 2 ways the instructor can simulate an engine failure:

- **Closing the throttle** – ideal for an engine failure after take-off (EFATO), but not the best way in cruise flight.
- **Building a Scenario** – Far better and more realistic for engine problems in the cruise. A problem can be built up in a more realistic way by the instructor pointing out things that are not normal. For example, starting with a high oil temperature, then a strange vibration, then possibly some smoke or fumes from the engine. This may encourage the student to run the engine at lower power and carry out some diagnosis (which may fix the problem) before rushing in to the full engine failure drills. There is no time for this method during an EFATO.

During the course of the ensuing practice engine failure in single-engined aircraft, the instructor is effectively also acting as a safety pilot. In a real engine failure, the student would not be expected to 'warm the engine' periodically. If they choose to do so then that is ok, otherwise the instructor must do so since he has a 'duty of care' to the aeroplane. This is no negative reflection on the student. In a similar manner, the instructor is responsible for making sure the carb heat is on, low flying rule adherence and calling the go-around.

Simulated engine failures of single-engined aircraft may also be practiced in the circuit, but be careful not to inconvenience other airfield users.

Simulated Engine Failures (Multi-Engines Aeroplanes):

Practice EFATOs on multi-engined aircraft should always be carried out at a suitable height. Each ATO will specify a minimum height, but 500' is typical. Remember, if the student puts the full 'wrong' rudder in, would you be able to recover from the height at which you gave the failure? At some airfields, due to noise abatement restrictions, this may mean that a practice EFATO will occur on the crosswind leg rather than climbout. After completing an asymmetric/OEI circuit to land, a full stop landing should always be made rather than a touch and go. This is in case the simulated failed engine is slow to respond when power is added for take-off. If further training is required, vacate the runway and taxi back to the holding point.

Touch Drills:

The student should know what touch drills are – just touching the control and saying what you would do with that control works well. It is important that the student not only touches the correct control, but also says the correct thing. For example, a student, in the feather drill in a multi-engined aeroplane may touch the left propeller control and say 'feather right'. Obviously, this is not acceptable. Neither is just touching it, or touching it and saying left. He needs to unequivocally touch the left prop control and say 'feather left'.

Some controls in some drills can actually be moved by the student: Throttle, fuel pump, carb heat, flaps etc. This should be encouraged. Imagine in an engine fire scenario if the throttle wasn't retarded.

Circuit Breakers

The instructor should not deliberately and secretly pull circuit breakers (CBs) in order to simulate a failure. It may be that that service cannot be restored.

Simulated Fires:

Many skill tests require a simulated fire to be dealt with. This can also be built up using a scenario. The instructor could start coughing, then point out a faint smokiness in the cabin. Then, slowly report worsening symptoms until the student responds by actioning the appropriate checklist.

Simulated Distress Calls:

Instructors should be encouraged to train students to make Practice PAN calls and training fixes during their training. Remember, a practice PAN can be made on any frequency, including a tower or AFIS frequency.

Intervention

It is very important to know when and how to intervene during flight training. Several accidents have occurred as a result of the instructor failing to intervene in a timely manner.

If the instructor intervenes too soon, the student misses a valuable learning point, and begins to rely on the instructor to get him out of trouble. If the instructor leaves it too late, then there is a possible safety problem.

There is also the question of how the intervention is done. There are 4 main levels of intervention, that can be summarised as shown:

1: Hint & Tip

If time is not too critical, a timely hint or tip can achieve the desired result. For example, when a student is low on the approach, a comment such as 'How do you think the vertical profile is looking?' might be enough for them to have a think about the situation. Similarly, on base leg, with a strong tailwind that has gone unnoticed: 'What do you think the wind is up here?'

2: Tell me what's wrong

If hinting and tipping haven't worked, a more direct approach may be needed. For the student low on approach: 'We're a bit low'. This still gives the student a chance to consider the problem and work out how to resolve it.

3: Tell me how to fix it

If pointing out the problem doesn't work, it may be that the student cannot think how to resolve the problem. They may need you to say something like 'add more power now' or 'raise the nose now'.

4: Fix it for me.

The last level occurs when all other avenues have been exhausted. You will need to say 'I have control' and fix the problem.

Appendix 6a: Trainee Needs

It is important when training a student that their needs are covered. Not every student is the same and they each have differing needs. These needs can be summarised as follows:

- Start from where I am.
- Let me know where I am going.
- Give me a reason to want to get there.
- Let me know how I am doing.
- Use *MY* experience.
- Progress at *MY* pace.
- Let me make the knowledge and skill my own.
- I acknowledge responsibility for my own learning.

Appendix 6b: Instructor Competencies

According to CAA Standards Document 10: All instructors shall be trained to achieve the following competences:



These will be dealt with in turn:

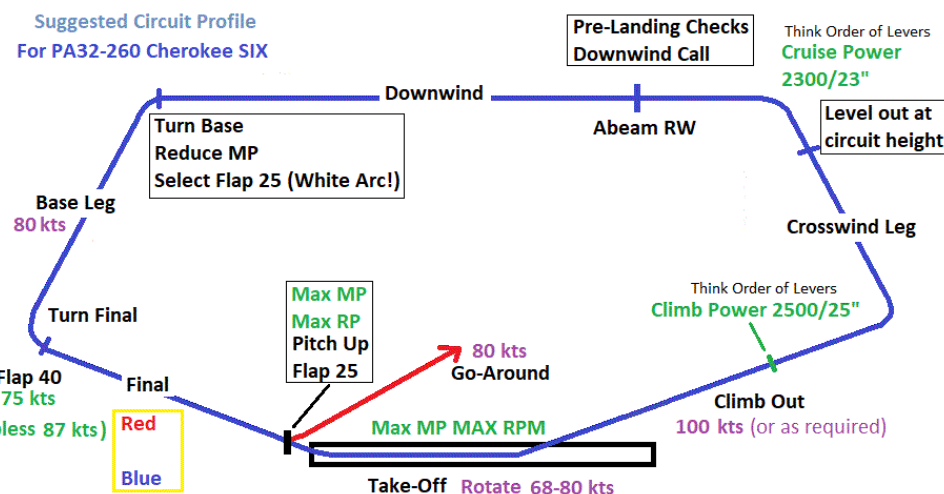
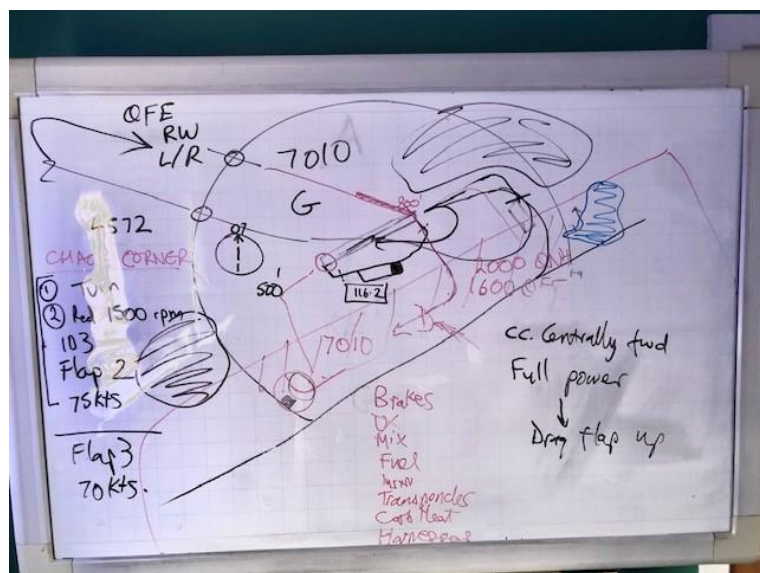
Prepare Resources

A lesson, be it ground or in the air requires considerable preparation on the part of the instructor. It will require:

- **A Framework:** The lesson should be structured in order to keep it concise and on track. This will usually begin with an aim, and then continue into the body of the lesson. At the end there should be a summary and time for questions.
- **Teaching Aids:** On the ground, these might include an aircraft model, a white board and pens, aircraft instruments, video clips etc. There use should be integrated into the lesson. In the air, such items as IMC goggles, instrument covers, maps etc should all be available to the instructor as and when needed. It does not inspire the student with confidence if the instructor cannot find or has forgotten to bring these items along.

- **Course Books:** It may be appropriate for the student to have been recommended or given a book, or other prepared documents (such as checklists or flight profiles) to guide them through a course or lesson.

It is important to make sure any resources you use are effective. Consider the following example.



Which of these 2 teaching aids would you use?!

Create a Climate Conducive to Learning

The learning environment is very important. This has several aspects:

- **Instructor Manner:** The instructor must be patient, approachable and unhurried in his behaviour. Many instructors allow insufficient time for lessons or briefings, and the result comes across negatively to the student who feels they are under pressure to learn and understand quickly. The general nature of the instructor here is also importance – appearance, professionalism and sense of humour are important.
- **Physical Climate:** The place where teaching is to take place (classroom, aeroplane or simulator) must be suitable in terms of temperature, light and other facilities needed. Briefing or teaching should never take place at a table in a crowded café.

Present Knowledge

It sounds obvious, but learning is much about the transfer of knowledge (and skill) from instructor to student. It is important that this transfer happens.

Integrate TEM & CRM

- **TEM:** It is a CAA requirement now to integrate Threat and Error Management into all aspects of aviation instruction. This begins in the classroom, and pre-flight briefings should already contain this element. One way to introduce this is to colour code as follows:

Aim: To learn how to safely perform one engine inoperative turns, descents & climbs.

Threats: Other aircraft, Terrain, Engine overheat.

Errors: Loss of control, Infringement, fuel mismanagement

Management: Lookout, Speed & bank angle awareness, Checklist discipline, Pre-flight planning, Altimeter checks.

In this way, once the aim of the lesson has been established, there can follow a discussion about what the possible threats and errors are associated with that exercise. This then allows another discussion on how to manage those threats. It is not sufficient to just list the threats and then not continue to the management phase. Later in the flight, these threats, errors and management techniques should be pointed out as they occur to underline their importance.

- **CRM:** Crew Resource Management should be encouraged at all times, but it is particularly important in the aeroplane. The use of interactive briefings, verbalization and open questions will help guide the student in this matter. CRM is something that is best led by example. As an instructor, always try to display high levels of CRM at all times. Explain why you make the decision you did.

Manage time to achieve Training Objectives

During the lesson, there is usually only a limited time available. This may be due to aircraft or instructor availability, airport operating hours etc. It is important that the time available is used to best manage the training requirements. If a student needs more practice, it may become necessary to drop a later exercise in order to properly practice the troublesome section.

Facilitate Learning

Not all students learn in the same way. Some grasp ideas quickly, others need more time. Some students are very 'visual' and rapidly understand concepts when diagrams are used. Some like mathematical formulae – others don't! It is your job as an instructor to find a way to make that student learn as best he can.

Assess Trainee Performance

Obviously, the student's performance must be continually assessed in order to ensure that progress is being made. This assessment is important to the student, the instructor and the training establishment. This is done partly in the post flight debrief, but should also be recorded in student records. Traditionally, such records were handwritten, but increasingly, ATOs are using on-line training records. Such records should also be available to the student.

Report writing is an integral part of any instructor's daily activity. It is a skill that may require development. This section offers suggestions for use by instructors as guidance material to produce accurate reports.

All reports must reflect the debrief. Instructors should avoid writing comments that have not been discussed during the debrief.

An accurately written report can serve the following purposes:

- As a written hand-over to the next instructor
- To provide the trainee with an overview of how the training is progressing
- To provide the trainee with tips for improvement
- To allow the HoT to analyse progress or areas for development
- To allow the HoT to deal with poor performance in a structured and fair manner

Use CAP (Commentary, Appraisal, Pointers):



Commentary

Detail how much of the lesson has been completed and to what overall standard has been achieved. Phrases to describe the standard might include; "to standard, below standard, good standard, very good standard and excellent standard".

Appraisal

Write a phrase or phrases to discuss where the student is in more detail. For example; "X continues to overbank in turns, 30 degrees AoB as a maximum! S&L flight is improving now that X trims effectively. Checklist usage needs further study though.

Pointers

List a couple of Main Points and a couple of Minor Points for improvement going forward. The Main Points would have formed the main part of the debrief. The exact number of Pointers is unimportant but would probably be between 1 and 4. Pointers can of course be positive! Ensure that remedies are offered where possible.

Signing Off the Report

Instructors should remember that student confidence is vital. Positive reinforcement is more powerful and aim to leave them with a word of encouragement. For example: “X is a pleasure to teach, keep up the hard work”

Comments:

Set course overhead. Nav to Chinnor - Abingdon Diversion to Newbury. Diversion to EGLK
Very well flown. Do not check instruments on taxi when in close proximity to other a/c.
Headings accurately flown. Diversions well flown. Do not change heading or alt without explanation.
Go-around due RW blocked. Good decision and well handled.
Navigation coming along very nicely.

Recommendations: More navigation practice

Giving positive feedback is a task most instructors enjoy. However, it is equally important to deliver negative feedback too. Negative feedback can be hard to handle and, when poorly delivered, unhelpful. We have all been on the receiving end of criticism - it is neither easy to give nor take. And yet, if appropriate, timely, and well wrapped, feedback can be a positive experience. While negative feedback might suggest a focus on the worst, it creates an immense opportunity for improvement when viewed in the right light. After all, an insightful critique provides a chance to grow and excel.

There are several points to think about before giving a student feedback:

- Harsh feedback may be counterproductive. Deliver feedback carefully and respectfully. If given too frequently and without regard to feeling, the student may revert to defense mode – possibly losing confidence, self-esteem, and motivation.
- Feedback isn't always negative. Don't persistently focus on what isn't working or isn't being done right. Attending to what is going well can support a student's growth and steer their development in the right direction.
- Feedback isn't always positive. On the other hand, don't always focus on strengths. If you only address the positives, the student will return to what they were doing, believing they have nothing to improve. Nevertheless, they will be delighted as they appear to be doing almost everything right. The balance between the points above is essential.
- Providing a fix may not be the answer. Ask facilitative questions that encourage reflection. Such open support can lead the student to understand what they did well, or poorly.
- Avoid wrapping negative feedback in praise. The feedback sandwich (there are more colloquial names for it), while popular, may not always be appropriate. The standard compliment/critique/compliment can give a false view of how someone is performing. Two positives outweigh one negative and, therefore, might suggest successful performance.
- Constructive criticism. Identifying the problem, then coming up with a plan to fix it is a powerful development tool. Help the student find ways to avoid making the same mistake while learning a new skill.
- Be honest and sincere. Students are often aware of their underperformance, so the feedback should not be a surprise. Make it clear you are keen to help them improve, rather than find fault.

- Be direct and clear. At the end of the feedback, don't let the student walk out of the room thinking 'what just happened?' State the feedback clearly and directly, without being rude or uncaring.
- Be specific. Don't overgeneralize or drift into other issues. Focus on the point(s) of feedback.
- Don't become personal. Do not confuse the person with their actions. Being personal may lead the student to shut down. They will be less likely to act on, or learn from, the points shared.
- Be consistent. Depending on the feedback frequency, the student shouldn't be surprised by what you have to say. Regular interaction can help avoid lengthy, negative, and unexpected feedback.
- Keep feedback fresh. Avoid a long gap between the lesson and providing feedback. The discussion should be current so that no one is trying to remember what happened.
- Always provide feedback in private, rather than in a public area.
- Always make a note of the feedback given so that any trends can be identified early.

Monitor and Review Progress

In much the same way as assessing trainee performance (above), the instructor should conduct a longer-term review of the student's progress to check for any undesirable trends. These should be communicated to the student as soon as possible.

Evaluate Training Sessions

It is important to find out if the training has been successful as soon as possible afterwards, or even during the training. Ask questions to find out if the lesson objectives and aims have been met.

Report Outcome

Make it clear to the student whether or not they have met the aims and objectives of the lesson using the same techniques as for feedback.

Appendix 7: CAA Forms & Documents [\(Click to visit\)](#)

Example forms are shown on the following pages, with guidance notes. Visit links for latest versions

SRG 5018: [Course Completion Certificate for an Instructor Course](#)

SRG 2159: [On-line Form for Application, the issue, renewal, revalidation or variation of an instructor certificate.](#)

SRG 1169: [Examiner's Record - FI\(R\)/FI/CRI/IRI/FIC Authorisation Test/Check](#)

Other Useful Documents

CAA Standards Document 10: [Assessment of Competence for Instructor Certification](#)

CAP 804: [Flight Crew Licensing - For Guidance Only](#)

[Full List of CAA Forms](#) [\(Click to visit\)](#)

SRG 5018: Course Completion Certificate for an Instructor Course

CAA5018 Instructor Training Course Completion Certificate in Accordance with Part-FCL

This form is intended for use in the provision of evidence in support of an application made to the CAA using the CAA's online application service. Once completed the form should be scanned or photographed and uploaded by the applicant as part of an online application to the CAA.



FALSE REPRESENTATION STATEMENT

It is an offence under the UK Air Navigation Order to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission, or other document. This offence is punishable on summary conviction by a fine and on conviction on indictment with an unlimited fine or imprisonment or both.

GUIDANCE NOTES

GUIDANCE NOTE 1: Authorised signatories

An authorised signatory acts as a representative of the Head of Training, authorised by the Head of Training or through approved procedures to confirm that the stated training has been conducted by the Approved Training Organisation (ATO). The ATO must maintain a record of those so authorized.

GUIDANCE NOTE 2: Which sections of the course completion to complete

You are only required to complete and print the sections relevant to your application.

Application applied for	Sections to be fully completed
FI Initial issue	1, 2, 3, 5
FI/CRI/IRI variation	FI - 1, 6(i) or 6(ii) / CRI - 1, 6(v) / IRI - 1, 6(vii)
FI/CRI/IRI renewal or revalidation	1, 5(v), 5(vi)
CRI/IRI/FTI Initial issue	1, 2, 5(i), 5(ii), 5(iii), 5(iv)
MCCI Initial issue or renewal	1, 4, 7
MCCI revalidation	1, 7
MCCI variation	1, 6(v), 7
FTI revalidation	1, 5(v)
FTI renewal	1, 5(v)
Mountain rating instructor initial issue	1, 2, 3, 5
TRI / SFI / STI Initial issue	1, 2, 5
TRI / SFI renewal	1, 2, 5
TRI / SFI revalidation	1, 5
TRI / SFI variation	1, 2, 6
STI renewal	1, 5

1. APPLICANT DETAILS		To be completed by the Training Provider
CAA Personal Reference number (if known):	Date of Birth:	
Title:	Forename(s):	Surname:
This application is for (please select all that apply): Initial issue <input type="checkbox"/> Renewal <input type="checkbox"/> Revalidation <input type="checkbox"/> Variation <input type="checkbox"/>		

2. PRE-REQUISITES		To be completed by the Training Provider
I certify that (name) has met the pre-requisites for (certificate(s))		
I further certify that I have examined the Pilot's logbook and confirm they have met the pre-requisite hours requirements: Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>		
The following hours have been flown and verified in the pilot's logbook (please provide a summary of total hours as per the requirements in the regulation):		
Training Provider Details:		
Name of Approved Training Organisation (ATO) (if applicable):		ATO number (if applicable):
Competent Authority issuing approval (if applicable):		
Name of Head of Training (or authorised signatory):		
Signature of Head of Training or authorised signatory:		Date:

3. Flight or Mountain Rating Instructor (FI/MI) Pre-Entry Flight Test		To be completed by the Instructor
I confirm the pilot has satisfactorily completed a pre-entry flight test on (date):		
I recommended the pilot for the specified course (select one): Flight Instructor (FI) <input type="checkbox"/> Mountain Rating Instructor (MI) <input type="checkbox"/>		
Name of FI/MI who conducted the flight test:		
Instructor reference number:		Competent authority issuing certificate:
Signature of Instructor:		Date:

4. MCCI Course Instructor (if applicable)		To be completed by the Training Provider
I can confirm that I have reviewed the pre-entry requirements alongside the applicant's experience and can confirm that the applicant meets Part-FCL.915.MCCI pre-entry requirements and FCL.930.MCCI a1) + a2) and/or FCL.940.MCCI (where appropriate) and therefore propose that the applicant proceed to formal observation by CAA or a nominated deputy.		
Training Provider Details:		
Name of Approved Training Organisation (ATO) (if applicable):		ATO number (if applicable):
Competent Authority issuing approval (if applicable):		
Name of Head of Training (or authorised signatory):		
Signature of Head of Training or authorised signatory:		Date:

5. TRAINING COURSE DETAILS		To be completed by the Training Provider
5)i) Theoretical knowledge		
..... hours of theoretical knowledge (TK) instruction		
The applicant has satisfactorily completed: (select one) Full TK training <input type="checkbox"/> Reduced TK training <input type="checkbox"/> Not applicable <input type="checkbox"/>		
The applicant has completed reduced course of TK training on the basis of: (if applicable)		
5)ii) Teaching and learning		
..... hours of teaching and learning completed		
The applicant has satisfactorily completed: (select one) Full teaching and learning <input type="checkbox"/> Reduced teaching and learning <input type="checkbox"/> Not applicable (exempt) <input type="checkbox"/>		
The applicant has completed a reduced course of teaching and learning in accordance with FCL.915(c)(1) on the basis of: (if applicable)		
5)iii) Technical training (IRI, CRI Initial issue)		
The applicant has satisfactorily completed hours of technical theoretical training		
5)iv) Flight training		
I confirm the pilot has satisfactorily completed an approved course of training in accordance with Part-FCL for the following:		
i) FI(A) <input type="checkbox"/> FI(H) <input type="checkbox"/> FI(AS) <input type="checkbox"/> FCL.900C FI(A) <input type="checkbox"/> FCL.900C FI(H) <input type="checkbox"/>		
ii) Class Rating Instructor CRI SE <input type="checkbox"/> ME <input type="checkbox"/>		
iii) Instrument Rating Instructor IRI(A) <input type="checkbox"/> IRI(H) <input type="checkbox"/> IRI (AS) <input type="checkbox"/>		
iv) Flight Test Instructor <input type="checkbox"/>		
v) Mountain Rating Instructor (FCL.930.MI(a)) <input type="checkbox"/>		
vi) Type Rating Instructor TRI(A) (Please specify type):		
vii) Type Rating Instructor TRI(H) (Please specify type):		
viii) Type Rating Instructor TRI(PL) (Please specify type):		
ix) Type Rating Instructor issued in accordance with FCL.725(e) (Please specify type)		
x) Synthetic Flight Instructor SFI (Please specify type):		
xi) Synthetic Flight Instructor SFI (SPA) <input type="checkbox"/> (MPA) <input type="checkbox"/> (H) <input type="checkbox"/> (PL) <input type="checkbox"/>		
xii) Synthetic Training Instructor STI A <input type="checkbox"/> H <input type="checkbox"/>		
Course start date: Course end date:		
The applicant has satisfactorily completed: (select one) Full flight training <input type="checkbox"/> Reduced flight training <input type="checkbox"/> Not applicable <input type="checkbox"/>		
The applicant has completed a reduced course of flight training on the basis of: (if applicable)		
The course consisted of hours of flight instruction of which hours instrument ground time in a FTD 2/3 or FNPT I or FNPT II/III or FFS.		
FSTD identification number of simulator used (which must be issued in accordance with UK Regulation No. 1778/2011)		
Competent Authority issuing qualification certificate for the simulator:		
Training Provider Details:		
Name of Approved Training Organisation (ATO) (if applicable):		ATO number (if applicable):
Competent Authority issuing approval (if applicable):		
Name of Head of Training (or authorised signatory):		
Signature of Head of Training or authorised signatory:		Date:

5(v) Instructor refresher training course	To be completed by the Training Provider
I confirm the pilot has satisfactorily completed the instructor refresher training course on (date).	
For the revalidation <input type="checkbox"/> or renewal <input type="checkbox"/> of an instructor Certificate in accordance with Part-FCL	
Training Provider Details	
Name of Approved Training Organisation (ATO): (if applicable): ATO number (if applicable):	
Competent Authority issuing approval (if applicable):	
Name of Head of Training (or authorised signatory):	
Signature (Head of Training): Date:	

5(vi) Instructor revalidation/renewal information	To be completed by the Examiner
I can confirm that the pilot has met the requirements of Part-FCL for the revalidation/renewal of the following Instructor:	
F(A) <input type="checkbox"/> F(H) <input type="checkbox"/> F(As) <input type="checkbox"/> CRI <input type="checkbox"/> IRI <input type="checkbox"/> SFI <input type="checkbox"/> STI <input type="checkbox"/> TRI <input type="checkbox"/> MCCI <input type="checkbox"/> MI <input type="checkbox"/>	
The Certificate of Revalidation has been signed and the rating/certificate is valid until (date)	
Examiner's Name: Examiner's Number:	
Competent Authority issuing Examiner's Certificate:	
Signature (Examiner): Date:	

6. Training Course/Information Details	To be completed by the Training Provider
6(i) Flight instructor variation (course)	
I certify that the pilot has satisfactorily met the variation hours requirement(s) in accordance with Part-FCL for the following:	
Extend privileges to flight instructor certificate to include:	
FCL.905.FI(h) IR <input type="checkbox"/> FCL.905.FI(h) IR(R) <input type="checkbox"/> FCL.905.FI(i) SPA ME <input type="checkbox"/>	
Please note section 5 iv) must be completed with the relevant course information	
Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):	
Competent Authority issuing approval (if applicable):	
Name of Head of Training (or authorised signatory):	
Signature of Head of Training or authorised signatory: Date:	

6(ii) Flight instructor variation (other)	To be completed by the Instructor
I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:	
Extend privileges to flight instructor certificate to include:	
FCL.905.FI(c) Flying multi-pilot operations on a single pilot aircraft <input type="checkbox"/> FCL.905.FI(e) CPL <input type="checkbox"/> FCL.905.FI(j) FI, IRI, CRI, STI or MI <input type="checkbox"/>	
Signature of Instructor: Date:	
I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:	
Extend privileges to flight instructor certificate to include:	
FCL.905(k)(1) MPL <input type="checkbox"/>	
I certify that the pilot has satisfactorily completed at least 500 hours of flight time as a pilot in aeroplanes, including at least 200 hours of flight instruction	
Signature of Instructor: Date:	
I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:	
Extend privileges to flight instructor certificate to include:	
FCL.905(k)(2) MPL <input type="checkbox"/>	
I certify the pilot holds a multi-engine aeroplane IR and the privilege to instruct for an IR <input type="checkbox"/> And	
I confirm the pilot has satisfactorily completed at least 1500 hours of flight time in multi-crew operations <input type="checkbox"/> or	
Is already an FI qualified to instruct on ATP(A) or CPL(A)/IR integrated courses and has completed a structured course consisting of the following training <input type="checkbox"/> :	
MCC qualification	
Observation of five sessions of flight instruction in Phase 3 of an MPL course	
Observation of five session of flight instruction in Phase 4 of an MPL course	
Observation of five operator recurrent line-oriented flight training sessions	
The content of the MCCI course	
Signature of Instructor: Date:	

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:	
FCL.905.FI(f) Night <input type="checkbox"/> FCL.905.FI(g) Banner Towing <input type="checkbox"/> FCL.905.FI(g) Glider Towing <input type="checkbox"/> FCL.905.FI(g) Aerobatic <input type="checkbox"/>	
Date of demonstration flight:	
Name of Instructor: Instructor Reference Number:	
Competent Authority issuing Instructor's Certificate:	
Signature of Instructor: Date:	

6(iii) TRI variation	To be completed by the Training Provider
I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of TRI in accordance with Part-FCL for the following:	
FCL.905.TRI(2) <input type="checkbox"/> FCL.905.TRI(3) (SPH PA) SP to MP <input type="checkbox"/>	
FCL.910.TRI(b)(c) (please specify type):	
FCL.910.TRI(a) FSTD <input type="checkbox"/> FCL.910.TRI(a) Line Flying (LIFUS) <input type="checkbox"/> FCL.910.TRI (b) Aircraft <input type="checkbox"/>	
FCL.910(c)(2) TRI SPH to MPH <input type="checkbox"/> FCL.910.TRI(a) Aircraft Takeoffs and Landings only <input type="checkbox"/>	
Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):	
Competent Authority issuing approval (if applicable):	
Name of Head of Training (or authorised signatory):	
Signature of Head of Training or authorised signatory: Date:	

6(iv) SFI variation	To be completed by the Training Provider
I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of SFI in accordance with Part-FCL for the following:	
FCL.905.SFI(b) (SPH PA) SP to MP <input type="checkbox"/>	
FCL.910.SFI (please specify type):	
Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):	
Competent Authority issuing approval (if applicable):	
Name of Head of Training (or authorised signatory):	
Signature of Head of Training or authorised signatory: Date:	

6(v) MCCI variation	To be completed by the Training Provider
I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of MCCI in accordance with Part-FCL for the following:	
FCL.910.MCCI (please specify type):	
Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):	
Competent Authority issuing approval (if applicable):	
Name of Head of Training (or authorised signatory):	
Signature of Head of Training or authorised signatory: Date:	

6(vi) CRI variation	To be completed by the Training Provider
I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of CRI in accordance with Part-FCL for the following:	
FCL.905.CRI (Please specify class or type):	
FCL.905.CRI(a) Banner Towing <input type="checkbox"/> FCL.905.CRI(a) Glider Towing <input type="checkbox"/> FCL.905.CRI(a) Aerobatic <input type="checkbox"/>	
FCL.905.CRI(ba) Flying multi-pilot operations on a single pilot (please specify class or type):	
Date of demonstration/assessment flight:	
Name of Instructor/Examiner: Instructor/Examiner reference number:	
Signature of Instructor/Examiner: Date:	

6(vii) IRI variation		To be completed by the Training Provider	
I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of IRI in accordance with Part-FCL for the following:			
FCL.905.IRI(b) (upgrade to MPL) <input type="checkbox"/>	FCL.915.IRI(a) (adding ME privileges in aeroplanes) <input type="checkbox"/>	FCL.915.IRI(b) (adding ME privileges in helicopters) <input type="checkbox"/>	
Note: Must also complete section 5(iv)		Note: Must also complete section 5(iv)	
Training Provider Details:			
Name of Approved Training Organisation (ATO) (if applicable):		ATO number (if applicable):	
Competent Authority issuing approval (if applicable):			
Name of Head of Training (or authorised signatory):			
Signature of Head of Training or authorised signatory:		Date:	

6(viii) Mountain Rating Instructor variation		To be completed by the Training Provider	
I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges in accordance with Part-FCL for the following:			
FCL.930.MI(a) Mountain Rating Instructor (wheels) <input type="checkbox"/>			
FCL.930.MI(a) Mountain Rating Instructor (skis) <input type="checkbox"/>			
FCL.930.MI(a) Mountain Rating Instructor (wheels and skis) <input type="checkbox"/>			
Training Provider Details:			
Name of Approved Training Organisation (ATO) (if applicable):		ATO number (if applicable):	
Competent Authority issuing approval (if applicable):			
Name of Head of Training (or authorised signatory):			
Signature of Head of Training or authorised signatory:		Date:	

7) Observation Report Form for Multi-Crew Co-Operation Instructor (A/H/PL)			To be completed by the Examiner	
FSTD Qualification Number:			Aircraft Represented:	
Date:			Start time:	Finish time:
			Duration:	
Assessment			Remarks	
a)	Prepare Resources	<input type="checkbox"/>		
b)	Create a climate conducive to learning	<input type="checkbox"/>		
c)	Present knowledge	<input type="checkbox"/>		
d)	Integrate threat and Error management (TEM) and crew resource management	<input type="checkbox"/>		
e)	Manage time to achieve training objectives	<input type="checkbox"/>		
f)	Facilitate learning	<input type="checkbox"/>		
g)	Assess trainee performance	<input type="checkbox"/>		
h)	Monitor and review progress	<input type="checkbox"/>		
i)	Evaluate training sessions	<input type="checkbox"/>		
j)	Report outcome	<input type="checkbox"/>		
I confirm that the Applicant detailed in Section 1 above has conducted at least 3 hours of flight / MCC instruction under my supervision and to my satisfaction, in accordance with Part-FCL.920, Part-FCL.930.MCCI and / or Part-FCL.940.MCCI and should therefore be issued with the following authorisation.				
Initial Authorisation <input type="checkbox"/> Revalidation/Renewal <input type="checkbox"/> Variation <input type="checkbox"/>				
Multi-Crew Co-Operation Instructor (A) <input type="checkbox"/>				
Multi-Crew Co-Operation Instructor (H) <input type="checkbox"/>				
Multi-Crew Co-Operation Instructor (PL) <input type="checkbox"/>				
Examiner Details				
Name of Examiner:			Examiner reference number:	
Competent Authority issuing Examiner's Certificate:				
Signature of Examiner:			Date:	

SRG 1169: [Examiner's Record - FI\(R\)/FI/CRI/IRI/FIC Authorisation Test/Check](#)

This form is used by the examiner for recording of an AOC for an instructor. It is a useful guide to the instructor as it shows what will be tested during the AoC.

Sections 1-2: Self-explanatory.

Section 3: Filled out by the ATO.

Sections 4 & 5: Self-explanatory.

Examiner's Record - FI(R)/FI/CRI/IRI/FIC Authorisation Test/Check Schedules - Aeroplane

Please complete this form online (preferred method) then print, sign and submit as instructed. Alternatively, print, then complete in BLOCK CAPITALS using black or dark blue ink.



Unique No. (to be completed by CAA)

Please read attached Guidance Notes before completing this form.

FALSE REPRESENTATION STATEMENT

It is an offence under Article 256 of the Air Navigation Order 2016 to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission or other document. This offence is punishable on summary conviction by a fine up to £5000, and on conviction on indictment with an unlimited fine or up to two years imprisonment or both.

1. Applicant Details To be completed by the Applicant

Surname Forename(s)

CAA reference number:

2. Test/Check Details To be completed by the Applicant

Type of Test: Location: Date:

A/C or STD reg & type: Off blocks: On blocks:

A/C or STD reg & type: Off blocks: On blocks:

Type (including variants):

FSTD Identification Number of simulator used (which must be approved in accordance with Commission Regulation (EU) 1178/2011 as amended):

Competent Authority issuing Qualification Certificate for the simulator:

Date flying training complete:

SECTION 1: Theoretical Knowledge	Pass	Fail	Observations/Reasons for Failure
Long Briefing Title	<input type="checkbox"/>	<input type="checkbox"/>	
a. Air law	<input type="checkbox"/>	<input type="checkbox"/>	
b. Aircraft general knowledge	<input type="checkbox"/>	<input type="checkbox"/>	
c. Flight performance and planning	<input type="checkbox"/>	<input type="checkbox"/>	
d. Human performance and limitations	<input type="checkbox"/>	<input type="checkbox"/>	
e. Meteorology	<input type="checkbox"/>	<input type="checkbox"/>	
f. Navigation	<input type="checkbox"/>	<input type="checkbox"/>	
g. Operational procedures	<input type="checkbox"/>	<input type="checkbox"/>	
h. Principles of flight	<input type="checkbox"/>	<input type="checkbox"/>	
i. Training administration	<input type="checkbox"/>	<input type="checkbox"/>	

SECTION 2: Pre Flight Briefing	Pass	Fail	Observations/Reasons for Failure
a. Visual presentation and content	<input type="checkbox"/>	<input type="checkbox"/>	
b. Technical accuracy	<input type="checkbox"/>	<input type="checkbox"/>	
c. Clarity of explanation	<input type="checkbox"/>	<input type="checkbox"/>	
d. Clarity of speech	<input type="checkbox"/>	<input type="checkbox"/>	
e. Instructional technique including TEM/ CRM	<input type="checkbox"/>	<input type="checkbox"/>	
f. Use of model and aids	<input type="checkbox"/>	<input type="checkbox"/>	
g. Student participation	<input type="checkbox"/>	<input type="checkbox"/>	

Form SRG 1169 Issue 04 August 2016

Page 1 of 3

4 copies required. Copies of the report shall be submitted to (1) The Applicant (2) The Applicant's Competent Authority (3) The Examiner (4) The Examiner's Competent Authority (if different)

SECTION 3: Flight	Pass	Fail	Observations/Reasons for Failure
a. Arrangement of demonstration	<input type="checkbox"/>	<input type="checkbox"/>	
b. Synchronising of speech/demo	<input type="checkbox"/>	<input type="checkbox"/>	
c. Assessment and correction of student faults	<input type="checkbox"/>	<input type="checkbox"/>	
d. Aeroplane handling	<input type="checkbox"/>	<input type="checkbox"/>	
e. Instructional technique	<input type="checkbox"/>	<input type="checkbox"/>	
f. General airmanship/safety	<input type="checkbox"/>	<input type="checkbox"/>	
g. Positioning and use of airspace	<input type="checkbox"/>	<input type="checkbox"/>	
h. Risk assessment including TEM/CRM	<input type="checkbox"/>	<input type="checkbox"/>	
Main Exercise Title and No.	<input type="checkbox"/>	<input type="checkbox"/>	
i	<input type="checkbox"/>	<input type="checkbox"/>	
j	<input type="checkbox"/>	<input type="checkbox"/>	

SECTION 4: Mandatory Exercises and other exercises at Examiner's discretion	Pass	Fail	Observations/Reasons for Failure
a. Spin avoidance (SE aeroplane)	<input type="checkbox"/>	<input type="checkbox"/>	
b. Safety module	<input type="checkbox"/>	<input type="checkbox"/>	
c. Take-off and climb, engine failure after take-off (SE aeroplane)	<input type="checkbox"/>	<input type="checkbox"/>	
d. Approach, landing, missed approach	<input type="checkbox"/>	<input type="checkbox"/>	
e. Forced landing without power (SE aeroplane)	<input type="checkbox"/>	<input type="checkbox"/>	
Additional exercises Title and No.	<input type="checkbox"/>	<input type="checkbox"/>	
f	<input type="checkbox"/>	<input type="checkbox"/>	
g	<input type="checkbox"/>	<input type="checkbox"/>	

SECTION 5: Multi engine (Aeroplane) - may be conducted in FNPT 2 or Simulator	Pass	Fail	Observations/Reasons for Failure
a. Engine failure (simulated) after take-off or on go-around	<input type="checkbox"/>	<input type="checkbox"/>	
b. Asymmetric approach and go-around	<input type="checkbox"/>	<input type="checkbox"/>	
c. Asymmetric approach and landing	<input type="checkbox"/>	<input type="checkbox"/>	

SECTION 6: Instrument Exercises - give exercise Title and No. in space provided	Pass	Fail	Observations/Reasons for Failure
a. Basic instrument flight	<input type="checkbox"/>	<input type="checkbox"/>	
b. Applied instrument flight	<input type="checkbox"/>	<input type="checkbox"/>	
c. Instrument approach	<input type="checkbox"/>	<input type="checkbox"/>	
d. Limited panel and unusual attitudes	<input type="checkbox"/>	<input type="checkbox"/>	

SECTION 7: Post Flight Debriefing	Pass	Fail	Observations/Reasons for Failure
a. Visual presentation and content	<input type="checkbox"/>	<input type="checkbox"/>	
b. Technical accuracy	<input type="checkbox"/>	<input type="checkbox"/>	
c. Clarity of explanation	<input type="checkbox"/>	<input type="checkbox"/>	
d. Clarity of Speech	<input type="checkbox"/>	<input type="checkbox"/>	
e. Instructional technique and facilitation	<input type="checkbox"/>	<input type="checkbox"/>	
f. Use of model and aids	<input type="checkbox"/>	<input type="checkbox"/>	
g. Student participation	<input type="checkbox"/>	<input type="checkbox"/>	

Form SRG 1169 Issue 04 August 2016

Page 2 of 3

3. APPROVED TRAINING ORGANISATION	
Approved Training Organisation (ATO):	ATO Approval No:
Competent Authority issuing approval:	
Head of Training (block capitals):	
Signature (Head of Training): Date:	
PLEASE REFER TO FALSE REPRESENTATION STATEMENT ON PAGE 1	

4. RESULT	
Tick appropriate box	
Pass <input type="checkbox"/>	Fail <input type="checkbox"/> Partial <input type="checkbox"/>
Retest Requirement:	Rating Revalidated Until (if applicable):
I have received information from the applicant regarding their experience and instruction and certify that this complies with the requirements of EASA Part-FCL.	
I have assessed the ICAO English Language Proficiency of the Applicant at Level 6: Yes <input type="checkbox"/> No* <input type="checkbox"/> Not Assessed <input type="checkbox"/>	
(*I have advised the Applicant to complete Form SRG 1199 and be assessed by an appropriate organisation, see CAP 804, Section 4, Part M.) Assessment is not required if Applicant holds Level 6.	
Examiner's Name (block capitals):	Examiners Number:
Authorising Competent Authority:	Date of Examiners Briefing (if applicable):
Signature (Examiner): Date:	
PLEASE REFER TO FALSE REPRESENTATION STATEMENT ON PAGE 1	

5. TEST, CHECKS AND ASSESSMENTS OF COMPETENCE – NOTICE OF FAILURE	
To be completed by examiner	
You are hereby notified that you have failed the for the following reasons:	
.....	
In accordance with Part FCL an Approved Training Organisation shall determine and deliver the required refresher/ remedial training prior to the applicant reattempting the skill test, proficiency check or assessment of competence. The applicant must provide evidence of this training to the examiner who conducts the next test, check or assessment of competence.	
Minimum training recommended by the Examiner:	
.....	
I understand that I have failed the items notified above.	
I understand that I may not exercise the privileges of my following the failure of this test, check or assessment of competence until the successful completion of training and a further test, check or assessment of competence.	
Received (Applicant) Signature:	Date:
PLEASE REFER TO FALSE REPRESENTATION STATEMENT ON PAGE 1	

Civil Aviation Authority Regulation 6
Regulation 6(5) of the Civil Aviation Authority Regulations 1991 as follows: Any person who has failed any test or examination which he is required to pass before he is granted or may exercise the privileges of a personnel licence may within 14 days of being notified of his failure request that the Authority determine whether the test or examination was properly conducted. In order to succeed you will have to satisfy the Authority that the examination or test was not properly conducted. Mere dissatisfaction with the result is not sufficient reason for appeal.

SRG 2159 Application for the issue, renewal, revalidation or variation of an instructor certificate (on-line form)

Below is a screen-shot of what can be applied for using this on-line form.

APPLICATION - VARIATION (FI)

Do not use the browser back button, as it will restart the form and lose of any unsaved form data. Use the forms "Continue" and "Back".

Fields marked with an asterisk () are mandatory.*

Application

Please select the privileges you are applying for: *

Aeroplanes

- ☐ FCL.905.FI (c) Flying multi-pilot operations on a single pilot
- ☐ FCL.905.FI(g) Aerobatic
- ☐ FCL.905.FI(g) Banner Towing
- ☐ FCL.905.FI(g) Glider Towing
- ☐ FCL.905.FI(h) IR(R)
- ☐ FCL.905(k)(1) MPL
- ☐ FCL.905(k)(2) MPL
- ☐ FCL.945 Obligations for Instructors
- ☐ Removal of LAPL only restriction

Aeroplanes and/or helicopters

- ☐ FCL.905.FI(e) CPL
- ☐ FCL.905.FI(f) Night
- ☐ FCL.905.FI(h) IR
- ☐ FCL.905.FI(i) SPA ME
- ☐ FCL.905.FI(j) FI, IRI, CRI, STI or MI
- ☐ FCL.910.FI Removal of Supervisory Restriction

Appendix 10: Typical Instructor Assessments of Competence

A Typical IRI AoC

Date of Test: 16 Jan 18. Examiner: Zahural Islam Aircraft: Pa28R G-CBZR

This was a combined FI revalidation and the addition of IRI privileges. The subjects chosen for the test by the examiner were as follows:

Long Briefing: Pitot-Static Instruments **Flight Exercise:** Radar Vectored ILS Approach

Islam arrived 30 mins late and gave a 5 minute brief on how the exam would be conducted. He explained that he didn't want to see a perfectly flown ILS, but rather be taught how to correct errors from both the LLZ and the GS.

The weather on the day was good visibility with scattered cloud at 3500'. There was a strong wind at 2000' of 280/40.

I gave the briefing for the air exercise, which lasted about 25 minutes with a few questions being asked by Islam, and one or 2 teaching points being clarified.

I had booked 2 ILS approaches at Oxford, but as luck would have it, Farnborough allowed us to do an ILS there.

Islam carried out the start up, but asked me to taxi out and do the power checks. After the power checks, he asked me to teach him the take-off, which I did.

Shortly after take-off I called Farnborough to ask for an ILS which was granted with an immediate vector for ILS 24. I gave Islam control and asked him to follow the vectors and maintain 2400'. I did the radio and demonstrated how to set up and ident the nav aids.

Once on base leg, I took control and showed how to intercept the localizer, then how to descend on the ILS. I deliberately got both high and low on the GS and showed how to recover. I then deviated from the LLZ and showed how to recover.

After the missed approach, we headed out to the NW. I was asked to teach tracking, so I taught tracking inbound to CPT VOR. I pointed straight at the beacon, and showed the effect the wind was having. Then laid off 20 degrees of drift and showed the bar now central.

Then I was asked to teach a climb. Islam then practised without mistakes.

Then I was asked to teach timed compass turns with no DI. I did this, then Islam practised.

I was then asked to introduce the concept of instrument flying as though it was the student's very first time in IMC. I got him to close his eyes and tried to disorient him. However, he was able to use the bright sun to stay aware of his orientation. He demonstrated a better method. To get the student to close his eyes and try to maintain straight and level for some time, until things go wrong!

I was asked to teach 2 stalls as an introduction to stalling. One clean to full stall, the other with full flap.

As this was a regular FI renewal combined with an IRI test, I was then asked to teach a PFL. On return to Blackbushe I was asked to teach a flapless approach and landing.

Back in the briefing room I was not asked for my lecture, and was instead asked a few technical questions.

1: How is the landing gear powered in the Arrow?

2: What would you do if one main wheel failed to extend?

Typical IRI Theoretical Knowledge Questions

- 1: Show with the use of a diagram how an ASI and VSI work.
- 2: State the properties of a gyroscope. Show how they are used in the principles of operation of the aircraft gyroscopic instruments.
- 3: What are the Instrument Flight Rules?
- 4: Can you fly IFR without an IR? Discuss.
- 5: Describe the principles of operation of the following navigation systems: VOR, ILS, DME, Radar.
- 6: May a pilot descend below the DA during an ILS approach? Under what 2 circumstances?
- 7: How does range affect VHF transmissions? What other factors can affect? Why can I ident WCO but not OCK on the ground at EGLK?
- 8: What classes of airspace are there in the UK? What class is the Heathrow CTR and what must I do to enter. What does that class of airspace mean?
- 9: State the pre course requirements for an IMC Rating. For an IR.
- 10: State the content of each course above in terms of hours flown and syllabus.
- 11: State the revalidation and renewal requirements for an IMC Rating and an IR.
- 12: State the privileges and restrictions of a UK IMC Rating.
- 13: What part of the frequency spectrum do the following navigation aids use: NDB, VOR, ILS?

Advice to Applicants for a standalone IRI AoC

- Have the necessary paperwork signed and ready: **SRG 5018** (Course completion certificate, see below) & **SRG 1169** (Examiner's Report). **Note:** Both of these forms require a signature from the head of training of the ATO.

CAA5018 Instructor Training Course Completion Certificate in Accordance with Part-FCL

This form is intended for use in the provision of evidence in support of an application made to the CAA using the CAA's online application service. Once completed the form should be scanned or photographed and uploaded by the applicant as part of an online application to the CAA.

FALSE REPRESENTATION STATEMENT

It is an offence under the UK Air Navigation Order to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission, or other document. This offence is punishable on summary conviction by a fine and on conviction on indictment with an unlimited fine or imprisonment or both.

GUIDANCE NOTES

GUIDANCE NOTE 1: Authorised signatories

An authorised signatory acts as a representative of the Head of Training, authorised by the Head of Training or through approved procedures to confirm that the stated training has been conducted by the Approved Training Organisation (ATO). The ATO must maintain a record of those so authorized.

GUIDANCE NOTE 2: Which sections of the course completion to complete

You are only required to complete and print the sections relevant to your application.

Application applied for	Sections to be fully completed
FI Initial Issue	1, 2, 3, 5
FI/CR/IRI variation	FI - 1, 6(i) or 6(ii) / CR - 1, 6(v) / IRI - 1, 6 (vii)
FI/CR/IRI renewal or revalidation	1, 5(v), 5(vi)
CR/IR/FTI initial issue	1, 2, 5(i), 5(ii), 5(iii), 5(iv)
MCCI initial issue or renewal	1, 4, 7
MCCI revalidation	1, 7
MCCI variation	1, 6(v), 7
FTI revalidation	1, 5(v)
FTI renewal	1, 5(v)
Mountain rating instructor initial issue	1, 2, 3, 5
TRI / SFI / STI initial issue	1, 2, 5
TRI / SFI renewal	1, 2, 5
TRI / SFI revalidation	1, 5
TRI / SFI variation	1, 2, 6
STI renewal	1, 5

1. APPLICANT DETAILS		To be completed by the Training Provider
CAA Personal Reference number (if known):	123456A	Date of Birth: 01/05/1997
Title: Ms	Forname(s): Ellie	Surname: Vaytor
This application is for (please select all that apply): Initial issue <input checked="" type="checkbox"/> Renewal <input type="checkbox"/> Revalidation <input type="checkbox"/> Variation <input type="checkbox"/>		

2. PRE-REQUISITES		To be completed by the Training Provider
I certify that (name) <u>Ellie Vaytor</u> has met the pre-requisites for (certificate(s)) <u>IRI(A)</u>		
I further certify that I have examined the Pilot's logbook and confirm they have met the pre-requisite hours requirements: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>		
The following hours have been flown and verified in the pilot's logbook (please provide a summary of total hours as per the requirements in the regulation): <u>800 hours IFR of which 400 hours in aeroplanes.</u>		

Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable):	M Pennage Flying School
ATO number (if applicable):	6666
Competent Authority issuing approval (if applicable):	UK CAA
Name of Head of Training (or authorised signatory):	A Vulture
Signature of Head of Training or authorised signatory:	Date: 24/04/2023

3. Flight - Mountain Rating Instructor (FI/MI) Pre-Entry Flight Test		To be completed by the Instructor
I confirm the pilot has satisfactorily completed a pre-entry flight test on (date):		
I recommended the pilot for the specified course (select one): Flight Instructor (FI) <input type="checkbox"/> Mountain Rating Instructor (MI) <input type="checkbox"/>		
Name of FI/MI who conducted the flight test:		
Instructor reference number:		
Competent authority issuing certificate:		
Signature of Instructor:		
Date:		

Applicant's CAA Personal Reference number: 123456A	
4. Cross-Course Instructor (if applicable)	
To be completed by the Training Provider	
I can confirm that I have reviewed the pre-entry requirements alongside the applicant's experience and can confirm that the applicant meets Part-FCL 915.MCCI pre-entry requirements and FCL 930.MCCI 921 and/or FCL 940.MCCI (where appropriate) and therefore propose that the applicant proceed to formal observation by CAA or a nominated deputy.	
Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable):	ATO number (if applicable):
Competent Authority issuing approval (if applicable):	
Name of Head of Training (or authorised signatory):	
Signature of Head of Training or authorised signatory:	Date:

5. TRAINING COURSE DETAILS		To be completed by the Training Provider
5)i) Theoretical knowledge		To be completed by the Training Provider
10 hours of theoretical knowledge (TK) instruction		
The applicant has satisfactorily completed: (select one): Full TK training <input checked="" type="checkbox"/> Reduced TK training <input type="checkbox"/> Not applicable <input type="checkbox"/>		
The applicant has completed reduced course of TK training on the basis of: (if applicable)		
5)ii) Teaching and learning		To be completed by the Training Provider
25 hours of teaching and learning completed		
The applicant has satisfactorily completed: (select one): Full teaching and learning <input checked="" type="checkbox"/> Reduced teaching and learning <input type="checkbox"/> Not applicable (exempt) <input type="checkbox"/>		
The applicant has completed a reduced course of teaching and learning in accordance with FCL 915(c)(1) on the basis of: (if applicable)		

5)iii) Technical training (IRI, CR/IRI initial issue)		To be completed by the Training Provider
The applicant has satisfactorily completed 10 hours of technical theoretical training		

5)iv) Flight training		To be completed by the Training Provider
I confirm the pilot has satisfactorily completed an approved course of training in accordance with Part-FCL for the following:		
i) FI(A) <input type="checkbox"/> FI(H) <input type="checkbox"/> FI(AS) <input type="checkbox"/> FCL 900C FI(A) <input type="checkbox"/> FCL 900C FI(H) <input type="checkbox"/>		
ii) Class Rating Instructor CRI SE <input type="checkbox"/> ME <input type="checkbox"/>		
iii) Instrument Rating Instructor IRI(A) <input checked="" type="checkbox"/> IRI(H) <input type="checkbox"/> IRI (AS) <input type="checkbox"/>		
iv) Flight Test Instructor <input type="checkbox"/>		
v) Mountain Rating Instructor (FCL 930.MI(a)) <input type="checkbox"/>		
vi) Type Rating Instructor TRI(A) (Please specify type):		
vii) Type Rating Instructor TRI(H) (Please specify type):		
viii) Type Rating Instructor TRI(PL) (Please specify type):		
ix) Type Rating Instructor issued in accordance with FCL 725(e) (Please specify type):		
x) Synthetic Flight Instructor SFI (Please specify type):		
xi) Synthetic Flight Instructor SFI (SPA) <input type="checkbox"/> (MPA) <input type="checkbox"/> (H) <input type="checkbox"/> (PL) <input type="checkbox"/>		
xii) Synthetic Training Instructor STI A <input type="checkbox"/> H <input type="checkbox"/>		
Course start date: 12/04/2023	Course end date: 20/04/2023	

The applicant has satisfactorily completed: (select one): Full flight training <input checked="" type="checkbox"/> Reduced flight training <input type="checkbox"/> Not applicable <input type="checkbox"/>	
The applicant has completed a reduced course of flight training on the basis of: (if applicable)	

The course consisted of 10 hours of flight instruction of which 0 hours instrument ground time in a FTD 2/3 or FNPT I or FNPT II or FFS.	
FSTD identification number of simulator used (which must be issued in accordance with UK Regulation No. 1778/2011)	
Competent Authority issuing qualification certificate for the simulator:	
Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable):	M Pennage Flying School
ATO number (if applicable):	6666
Competent Authority issuing approval (if applicable):	UK CAA
Name of Head of Training (or authorised signatory):	A Vulture
Signature of Head of Training or authorised signatory:	Date: 24/04/2023

Applicant's CAA Personal Reference number: **123456A**

5iv) Instructor refresher training course To be completed by the Training Provider

I confirm the pilot has satisfactorily completed the instructor refresher training course on (date)

For the revalidation ☐ or renewal ☐ of an Instructor Certificate in accordance with Part-FCL

Training Provider Details

Name of Approved Training Organisation (ATO): (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature (Head of Training): Date:

5vi) Instructor revalidation/renewal information To be completed by the Examiner

I can confirm that the pilot has met the requirements of Part-FCL for the revalidation/renewal of the following Instructor:

FI(A) ☐ FI(H) ☐ FI(AS) ☐ CRI ☐ IRI ☐ SFI ☐ STI ☐ TRI ☐ MCCI ☐ MI ☐

The Certificate of Revalidation has been signed and the rating/certificate is valid until (date)

Examiner's Name: Examiner's Number:

Competent Authority issuing Examiner's Certificate:

Signature (Examiner): Date:

6. Training Course/Information Details To be completed by the Training Provider

6i) Flight instructor variation (course)

I certify that the pilot has satisfactorily met the variation hours requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905.FI(h) IR ☐ FCL.905.FI(h) IR(R) ☐ FCL.905.FI(i) SPA ME ☐

Please note section 5 iv) must be completed with the relevant course information

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6ii) Flight instructor variation (other) To be completed by the Instructor

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905.FI(c) Flying multi-pilot operations on a single pilot aircraft ☐ FCL.905.FI(e) CPL ☐ FCL.905.FI(f) FI, IRI, CRI, STI, CPL ☐

Signature of Instructor: Date:

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905(k)(1) MPL ☐

I certify that the pilot has satisfactorily completed at least 500 hours of flight time as a pilot in aeroplanes, including at least 200 hours of flight instruction

Signature of Instructor: Date:

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905(k)(2) MPL ☐

I certify the pilot holds a multi-engine aeroplane IR and the privilege to instruct for an IR ☐ And

I confirm the pilot has satisfactorily completed at least 1500 hours of flight time in multi-crew operations ☐ or

Is already an FI qualified to instruct on ATP(A) or CPL(A)/IR integrated courses and has completed a structured course consisting of the following training ☐ :

MCC qualification

Observation of five sessions of flight instruction in Phase 3 of an MPL course

Observation of five sessions of flight instruction in Phase 4 of an MPL course

Observation of five operator recurrent line-oriented flight training sessions

The content of the MCC course

Signature of Instructor: Date:

Applicant's CAA Personal Reference number: **123456A**

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

FCL.905.FI(f) Night ☐ FCL.905.FI(g) Banner Towing ☐ FCL.905.FI(g) Glider Towing ☐ FCL.905.FI(g) Aerobatic ☐

Date of demonstration flight:

Name of Instructor: Instructor Reference Number:

Competent Authority issuing Instructor's Certificate:

Signature of Instructor: Date:

6iv) TRI variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of TRI in accordance with Part-FCL for the following:

FCL.905.TRI(2) ☐ FCL.905.TRI(3) (SPHPA) SP to MP ☐

FCL.910.TRI(b)(c) (please specify type):

FCL.910.TRI(a) PSTD ☐ FCL.910.TRI(a) Line Flying (LIFUS) ☐ FCL.910.TRI(b) Aircraft ☐

FCL.910(c)(2) TRI SPH to MPH ☐ FCL.910.TRI(a) Aircraft Takeoffs and Landings only ☐

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6v) SFI variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of SFI in accordance with Part-FCL for the following:

FCL.905.SFI(b) (SPHPA) SP to MP ☐

FCL.910.SFI (please specify type):

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6vi) MCC variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of MCCI in accordance with Part-FCL for the following:

FCL.910.MCCI (please specify type):

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6vii) CRI variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of CRI in accordance with Part-FCL for the following:

FCL.905.CRI (Please specify class or type):

FCL.905.CRI(a) Banner Towing ☐ FCL.905.CRI(a) Glider Towing ☐ FCL.905.CRI(a) Aerobatic ☐

FCL.905.CRI(ba) Flying multi-pilot operations on a single pilot (please specify class or type):

Date of demonstration/assessment flight:

Name of Instructor/Examiner: Instructor/Examiner reference number:

Signature of Instructor/Examiner: Date:

Applicant's CAA Personal Reference number: **123456A**

6) Variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of IRI in accordance with Part-FCL for the following:

FCL 905.IRI(b) (upgrade to MPL) ☐ FCL 915.IRI(a) (adding ME privileges in aeroplanes) ☐ FCL 915.IRI(b) (adding ME privileges in helicopters) ☐

Note: Must also complete section 5(iv)

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6) Mountain Rating Instructor variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges in accordance with Part-FCL for the following:

FCL 930.MI(a) Mountain Rating Instructor (wheels) ☐

FCL 930.MI(a) Mountain Rating Instructor (skis) ☐

FCL 930.MI(a) Mountain Rating Instructor (wheels and skis) ☐

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

7) Observation Report Form for Multi-Crew Co-Operation Instructor (A/H/PL) To be completed by the Examiner

FSTD Qualification Number: Aircraft Represented:

Date: Start time: Finish time: Duration:

Assessment		Remarks
a)	Prepare Resources	
b)	Create a climate conducive to learning	
c)	Present knowledge	
d)	Integrate threat and Error management (TEM) and crew resource management	
e)	Manage time to achieve training objectives	
f)	Facilitate learning	
g)	Assess trainee performance	
h)	Monitor and review progress	
i)	Evaluate training sessions	
j)	Report outcome	

I confirm that the Applicant detailed in Section 1 above has conducted at least 3 hours of flight / MCC instruction under my supervision and to my satisfaction, in accordance with Part-FCL 920, Part-FCL 930.MCCI and/or Part-FCL 940.MCCI and should therefore be issued with the following authorisation.

Initial Authorisation ☐ Revalidation/Renewal ☐ Variation ☐

Multi-Crew Co-Operation Instructor (A) ☐

Multi-Crew Co-Operation Instructor (H) ☐

Multi-Crew Co-Operation Instructor (PL) ☐

Examiner Details

Name of Examiner: Examiner reference number:

Competent Authority issuing Examiner's Certificate:

Signature of Examiner: Date:

2. Make sure the aircraft is available and ready. Check weather minima.
3. Make sure your long briefing is ready and all visual aids are on hand eg aircraft model.
4. Make sure you have a briefing room available for several hours.
5. Make sure your theoretical knowledge is good. Some examiners will go into great detail, other less so. See Standards Document 10.

Advice to Applicants for an FI(h) AoC

- Have the necessary paperwork signed and ready: **SRG 5018** (Course completion certificate, see below) & **SRG 1169** (Examiner's Report). **Note:** Both of these forms require a signature from the head of training of the ATO.

CAA5018 Instructor Training Course Completion Certificate in Accordance with Part-FCL

This form is intended for use in the provision of evidence in support of an application made to the CAA using the CAA's online application service. Once completed the form should be scanned or photographed and uploaded by the applicant as part of an online application to the CAA.



FALSE REPRESENTATION STATEMENT

It is an offence under the UK Air Navigation Order to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission, or other document. This offence is punishable on summary conviction by a fine and on conviction on indictment with an unlimited fine or imprisonment or both.

GUIDANCE NOTES

GUIDANCE NOTE 1: Authorised signatories

An authorised signatory acts as a representative of the Head of Training, authorised by the Head of Training or through approved procedures to confirm that the stated training has been conducted by the Approved Training Organisation (ATO). The ATO must maintain a record of those so authorised.

GUIDANCE NOTE 2: Which sections of the course completion to complete

You are only required to complete and print the sections relevant to your application.

Application applied for	Sections to be fully completed
FI Initial Issue	1, 2, 3, 5
FI/CR/IRI variation	FI - 1, 6(i) or 6(ii) / CR - 1, 6(v) / IRI - 1, 6(vii)
FI/CR/IRI renewal or revalidation	1, 5(v), 5(vi)
CR/IR/FTI initial issue	1, 2, 5(i), 5(ii), 5(iii), 5(iv)
MCCI initial issue or renewal	1, 4, 7
MCCI revalidation	1, 7
MCCI variation	1, 6(v), 7
FTI revalidation	1, 5(v)
FTI renewal	1, 5(v)
Mountain Rating Instructor initial Issue	1, 2, 3, 5
TRI / SFI / STI initial issue	1, 2, 5
TRI / SFI renewal	1, 2, 5
TRI / SFI revalidation	1, 5
TRI / SFI variation	1, 2, 6
STI renewal	1, 5

1. APPLICANT DETAILS		To be completed by the Training Provider
CAA Personal Reference number (if known):	123456A	Date of Birth: 01/05/1997
Title: Ms	For name(s): Ellie	Surname: Vaytor
This application is for (please select all that apply): Initial issue <input type="checkbox"/> Renewal <input type="checkbox"/> Revalidation <input type="checkbox"/> Variation <input checked="" type="checkbox"/>		

2. PRE-REQUISITES		To be completed by the Training Provider
I certify that (name) Ellie Vaytor has met the pre-requisites for (certificate(s)) FI(A) instrument privileges		
I further certify that I have examined the Pilot's logbook and confirm they have met the pre-requisite hours requirements: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>		
The following hours have been flown and verified in the pilot's logbook (please provide a summary of total hours as per the requirements in the regulation):		
200 hours IFR in aeroplanes.		

Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable):	M Pennage Flying School
ATO number (if applicable):	6666
Competent Authority issuing approval (if applicable):	UK CAA
Name of Head of Training (or authorised signatory):	A Vulture
Signature of Head of Training or authorised signatory:	Date: 24/04/2023

3. Flight or Mountain Rating Instructor (FI/MI) Pre-Entry Flight Test		To be completed by the Training Provider
I confirm the pilot has satisfactorily completed a pre-entry flight test on (date):		
I recommended the pilot for the specified course (select one): Flight Instructor (FI) <input type="checkbox"/> Mountain Rating Instructor (MI) <input type="checkbox"/>		
Name of FI/MI who conducted the flight test:		
Instructor reference number:		
Competent authority issuing certificate:		
Signature of Instructor:		
Date:		

Applicant's CAA Personal Reference number: 123456A

4. Was Course Instructor (if applicable)		To be completed by the Training Provider
I can confirm that I have reviewed the pre-entry requirements alongside the applicant's experience and can confirm that the applicant meets Part-FCL 915.MCQ pre-entry requirements and FCL 930.MCQ (if applicable) and/or FCL 940.MCQ (where appropriate) and therefore propose that the applicant proceed to formal observation by CAA or a nominated deputy.		
Training Provider Details:		
Name of Approved Training Organisation (ATO) (if applicable):		ATO number (if applicable):
Competent Authority issuing approval (if applicable):		
Name of Head of Training (or authorised signatory):		
Signature of Head of Training or authorised signatory:		Date:

5. TRAINING COURSE DETAILS		To be completed by the Training Provider
5)i) Theoretical knowledge		
The applicant has satisfactorily completed: (select one) Full TK training <input checked="" type="checkbox"/> Reduced TK training <input type="checkbox"/> Not applicable <input type="checkbox"/>		
The applicant has completed reduced course of TK training on the basis of: (if applicable)		
5)ii) Teaching and learning		
The applicant has satisfactorily completed: (select one) Full teaching and learning <input type="checkbox"/> Reduced teaching and learning <input type="checkbox"/> Not applicable (exempt) <input checked="" type="checkbox"/>		
The applicant has completed a reduced course of teaching and learning in accordance with FCL 915(c)(1) on the basis of: (if applicable)		

Applicant holds FI(A).	
5)iii) Technical training (IRI, CR/IRI initial issue)	
The applicant has satisfactorily completed 10 hours of technical theoretical training	

5)iv) Flight training		To be completed by the Training Provider
I confirm the pilot has satisfactorily completed an approved course of training in accordance with Part-FCL for the following:		
i) FI(A) <input checked="" type="checkbox"/> FI(H) <input type="checkbox"/> FI(AS) <input type="checkbox"/> FCL 900C FI(A) <input type="checkbox"/> FCL 900C FI(H) <input type="checkbox"/>		
ii) Class Rating Instructor CRI SE <input type="checkbox"/> ME <input type="checkbox"/>		
iii) Instrument Rating Instructor IRI(A) <input type="checkbox"/> IRI(H) <input type="checkbox"/> IRI(AS) <input type="checkbox"/>		
iv) Flight Test Instructor <input type="checkbox"/>		
v) Mountain Rating Instructor (FCL 930.MI(a)) <input type="checkbox"/>		
vi) Type Rating Instructor TRI(A) (Please specify type):		
vii) Type Rating Instructor TRI(H) (Please specify type):		
viii) Type Rating Instructor TRI(PL) (Please specify type):		
ix) Type Rating Instructor issued in accordance with FCL 725(e) (Please specify type):		
x) Synthetic Flight Instructor SFI (Please specify type):		
xi) Synthetic Flight Instructor SFI (SPA) <input type="checkbox"/> (MPA) <input type="checkbox"/> (H) <input type="checkbox"/> (PL) <input type="checkbox"/>		
xii) Synthetic Training Instructor STI A <input type="checkbox"/> H <input type="checkbox"/>		
Course start date: 12/04/2023	Course end date: 23/04/2023	

The applicant has satisfactorily completed: (select one) Full flight training <input type="checkbox"/> Reduced flight training <input checked="" type="checkbox"/> Not applicable <input type="checkbox"/>	
The applicant has completed a reduced course of flight training on the basis of: (if applicable)	
Applicant holds FI(A).	

The course consisted of 5 hours of flight instruction of which 0 hours instrument ground time in a FTD 2/3 or FNPT I or FNPT II/III or FFS.	
FSTD identification number of simulator used (which must be issued in accordance with UK Regulation No. 1778/2011)	
Competent Authority issuing qualification certificate for the simulator:	
Training Provider Details:	
Name of Approved Training Organisation (ATO) (if applicable): M Pennage Flying School	
ATO number (if applicable): 6666	
Competent Authority issuing approval (if applicable): UK CAA	
Name of Head of Training (or authorised signatory): A Vulture	
Signature of Head of Training or authorised signatory:	
Date: 24/04/2023	

Applicant's CAA Personal Reference number: **123456A**

5iv) Instructor refresher training course To be completed by the Training Provider

I confirm the pilot has satisfactorily completed the instructor refresher training course on (date)

For the revalidation ☐ or renewal ☐ of an instructor Certificate in accordance with Part-FCL

Training Provider Details

Name of Approved Training Organisation (ATO): (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature (Head of Training): Date:

5vi) Instructor revalidation/renewal information To be completed by the Examiner

I can confirm that the pilot has met the requirements of Part-FCL for the revalidation/renewal of the following Instructor:

FI(A) ☐ FI(H) ☐ FI(As) ☐ CRI ☐ IRI ☐ SFI ☐ STI ☐ TRI ☐ MCCI ☐ MI ☐

The Certificate of Revalidation has been signed and the rating/certificate is valid until (date)

Examiner's Name: Examiner's Number:

Competent Authority issuing Examiner's Certificate:

Signature (Examiner): Date:

6. Training Course/Information Details To be completed by the Training Provider

6)i) Flight instructor variation (course)

I certify that the pilot has satisfactorily met the variation hours requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905.Fi(h) IR ☒ FCL.905.Fi(h) IR(R) ☐ FCL.905.Fi(i) SPA ME ☐

Please note section 5 iv) must be completed with the relevant course information

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): **M Pennage Flying School** ATO number (if applicable): **6666**

Competent Authority issuing approval (if applicable): **UK CAA**

Name of Head of Training (or authorised signatory): **A Vulture**

Signature of Head of Training or authorised signatory: Date: **24/04/2023**

6)ii) Flight instructor variation (other) To be completed by the Instructor

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905.Fi(c) Flying multi-pilot operations on a single pilot aircraft ☐ FCL.905.Fi(e) CPL ☐ FCL.905.Fi(j) FI, IRI, CRI, STI or MI ☐

Signature of Instructor: Date:

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905(k)(1) MPL ☐

I certify that the pilot has satisfactorily completed at least 500 hours of flight time as a pilot in aeroplanes, including at least 200 hours of flight instruction

Signature of Instructor: Date:

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

Extend privileges to flight instructor certificate to include:

FCL.905(k)(2) MPL ☐

I certify the pilot holds a multi-engine aeroplane IR and the privilege to instruct for an IR ☐ And

I confirm the pilot has satisfactorily completed at least 1500 hours of flight time in multi-crew operations ☐ or

Is already an FI qualified to instruct on ATP(A) or CPL(A)/IR integrated courses and has completed a structured course consisting of the following training ☐ :

MCC qualification

Observation of five sessions of flight instruction in Phase 3 of an MPL course

Observation of five sessions of flight instruction in Phase 4 of an MPL course

Observation of five operator recurrent line-oriented flight training sessions

The content of the MCC course

Signature of Instructor: Date:

Applicant's CAA Personal Reference number: **123456A**

6)iii) TRI variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) in accordance with Part-FCL for the following:

FCL.905.FI(f) Night ☐ FCL.905.FI(g) Banner Towing ☐ FCL.905.FI(g) Glider Towing ☐ FCL.905.FI(g) Aerobatic ☐

Date of demonstration flight:

Name of Instructor: Instructor Reference Number:

Competent Authority issuing Instructor's Certificate:

Signature of Instructor: Date:

6)iv) SFI variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of TRI in accordance with Part-FCL for the following:

FCL.905.TRI(2) ☐ FCL.905.TRI(3) (SPHPA) SP to MP ☐

FCL.910.TRI(b)/(c) (please specify type):

FCL.910.TRI(a) FSTD ☐ FCL.910.TRI(a) Line Flying (LIFUS) ☐ FCL.910.TRI(b) Aircraft ☐

FCL.910(c)(2) TRI SPH to MPH ☐ FCL.910.TRI(a) Aircraft Takeoffs and Landings only ☐

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6)v) SFI variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of SFI in accordance with Part-FCL for the following:

FCL.905.SFI(b) (SPHPA) SP to MP ☐

FCL.910.SFI (please specify type):

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6)vi) MCCI variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of MCCI in accordance with Part-FCL for the following:

FCL.910.MCCI (please specify type):

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6)vii) CPL variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of CRI in accordance with Part-FCL for the following:

FCL.905.CRI (Please specify class or type):

FCL.905.CRI(a) Banner Towing ☐ FCL.905.CRI(a) Glider Towing ☐ FCL.905.CRI(a) Aerobatic ☐

FCL.905.CRI(ba) Flying multi-pilot operations on a single pilot (please specify class or type):

Date of demonstration/assessment flight:

Name of Instructor/Examiner: Instructor/Examiner reference number:

Signature of Instructor/Examiner: Date:

Applicant's CAA Personal Reference number: **123456A**

6) Variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges of IRI in accordance with Part-FCL for the following:

FCL.905.IRI(b) (upgrade to MPL) ☐ FCL.915.IRI(a) (adding ME privileges in aeroplanes) ☐ FCL.915.IRI(b) (adding ME privileges in helicopters) ☐

Note: Must also complete section 5(iv) **Note: Must also complete section 5(iv)**

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

6) Mountain Rating Instructor variation To be completed by the Training Provider

I certify that the pilot has satisfactorily met the variation requirement(s) to extend privileges in accordance with Part-FCL for the following:

FCL.930.MI(a) Mountain Rating Instructor (wheels) ☐

FCL.930.MI(a) Mountain Rating Instructor (skis) ☐

FCL.930.MI(a) Mountain Rating Instructor (wheels and skis) ☐

Training Provider Details:

Name of Approved Training Organisation (ATO) (if applicable): ATO number (if applicable):

Competent Authority issuing approval (if applicable):

Name of Head of Training (or authorised signatory):

Signature of Head of Training or authorised signatory: Date:

7) Observation Report Form for Multi-Crew Co-Operation Instructor (A/H/PL) To be completed by the Examiner

FSTD Classification Number: Aircraft Represented:

Date: Start time: Finish time: Duration:

Assessment		Remarks
a)	Prepare Resources	
b)	Create a climate conducive to learning	
c)	Present knowledge	
d)	Integrate threat and Error management (TEM) and crew resource management	
e)	Manage time to achieve training objectives	
f)	Facilitate learning	
g)	Assess trainee performance	
h)	Monitor and review progress	
i)	Evaluate training sessions	
j)	Report outcome	

I confirm that the Applicant detailed in Section 1 above has conducted at least 3 hours of flight / MCC instruction under my supervision and to my satisfaction, in accordance with Part-FCL.920, Part-FCL.930.MCC and/or Part-FCL.940.MCC and should therefore be issued with the following authorisation.

Initial Authorisation ☐ Revalidation/Renewal ☐ Variation ☐

Multi-Crew Co-Operation Instructor (A) ☐

Multi-Crew Co-Operation Instructor (H) ☐

Multi-Crew Co-Operation Instructor (PL) ☐

Examiner Details

Name of Examiner: Examiner reference number:

Competent Authority issuing Examiner's Certificate:

Signature of Examiner: Date:

2. Make sure the aircraft is available and ready. Check weather minima.
3. Make sure your long briefing is ready and all visual aids are on hand eg aircraft model.
4. Make sure you have a briefing room available for several hours.
5. Make sure your theoretical knowledge is good. Some examiners will go into great detail, other less so. See Standards Document 10.

GOOD LUCK!

