



The future of non commercial IFR flight

CBM IR, EIR and IR(R)

*or how IFR qualifications are become more accessible to
the busy pilot*

Agenda

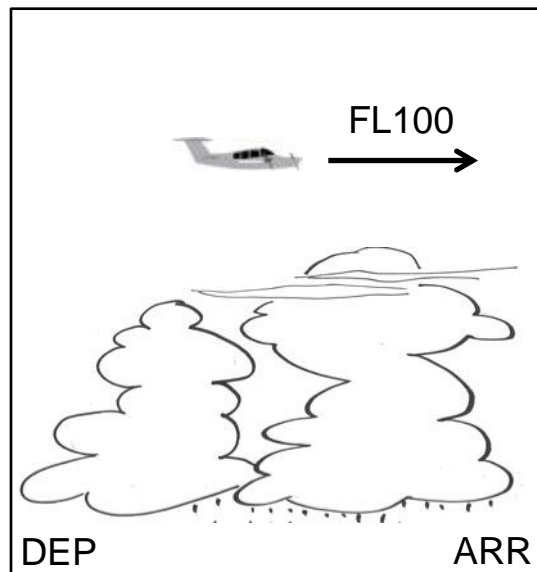
1. IFR flying
2. PPL/IR Europe
3. CBM IR and EIR
4. IR(R) / IMCR



Why IFR?

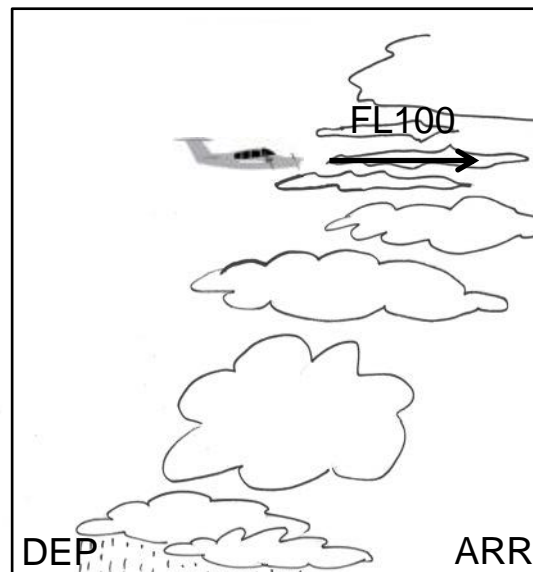
	VFR	IFR
Planning and navigation	ATZ/CTR/Class A Danger and Prohibited Parachuting & Gliding Air Displays Military Areas/Exercises	Follow the route, do as you are told
Terrain	Scud running Obstacles CFIT	Follow the route and approach procedures
Collision	See and avoid Rules of the Air Avoiding action	Protection of controlled airspace and radar control
Weather	Poor visibility Turbulence/pax discomfort	Usually over the top Clear, smooth air See and avoid CBs
ATC	Lower priority	Higher priority
The view	Can be amazing	Can be amazing

Typical missions



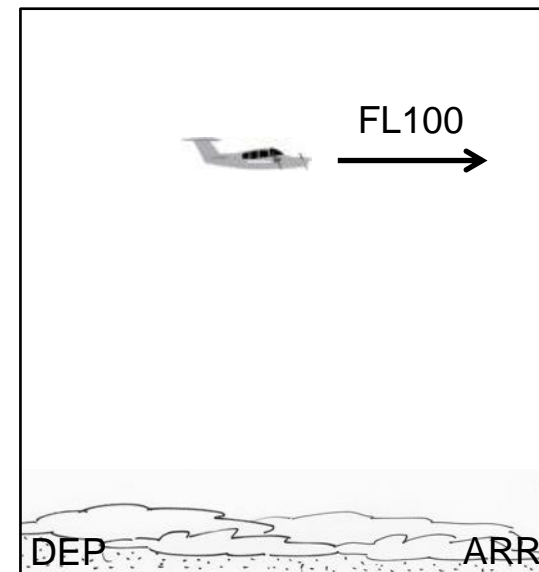
Summer convection

Smooth air on top
Simple navigation
Safety of CAS
Time IMC: 00:00



Frontal

Visual departure
Visual approach
Safety of CAS
Time IMC: 01:00



Low stratus/low vis

Instrument departure
Instrument approach
Cruise in VMC
Time IMC: 00:15

Non-commercial IFR: typical pilots

- ✦ Often shares an aircraft
 - sometimes owns outright, sometimes rents
- ✦ Career outside of aviation
 - busy, professional, sometimes retired
- ✦ Private and business use
 - need to go where they want, when they want



PPL/IR Europe benefits

- ✦ Support network of like-minded pilots
- ✦ Organised touring
- ✦ Regular events
- ✦ Representation at a high level on European committees
- ✦ Dedicated to protecting PPL access to IFR flight
- ✦ Complementary to AOPA, not instead of AOPA



The support network for GA IFR pilots
Shared knowledge and experience
Regular seminars and social events
A respected lobbying voice

PPL/IR Europe as mutual support



- ✦ Started in 1993 as a way of exchanging knowledge and experience about instrument flying
- ✦ Private pilots do not have the support enjoyed by professional pilots and PPL/IR Europe began to fill that need
- ✦ Members from 20 countries
- ✦ Non-profit organisation
- ✦ All executive committee members are unpaid volunteers



The **Home** of European GA IFR Pilots

PPL/IR Europe is open to any pilot interested
in the operation of light aircraft under IFR in Europe.



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Protecting fair access to IFR

- ✦ Moves to JAR and EASA meant rapid changes to rules, regulations and avionics
- ✦ Private IFR can get overlooked between VFR GA and CAT
- ✦ PPL/IR Europe evolved to become a highly respected special interest lobby group
- ✦ Exec team sit on EASA committees covering licensing, operations, and equipment



First review of IFR training since JAR



- ✦ JAR-FCL drove a two tier training structure since 1999
 - all IFR training pushed together with ATPL training
- ✦ JAR-FCL seen as a success for ATPL training, a disaster for private IR training
 - very few private pilots undertook the training
 - many European pilots moved to FAA aircraft and licenses
- ✦ Review started in late 2008 – FCL008
- ✦ Former PPL/IR Europe chairman as independent expert
- ✦ Result is new EU Law in Spring 2014



European Aviation Safety Agency

NOTICE OF PROPOSED AMENDMENT

NPA 2011-16

**Qualifications for flying in Instrument
Meteorological Conditions**

Typical candidates are very different

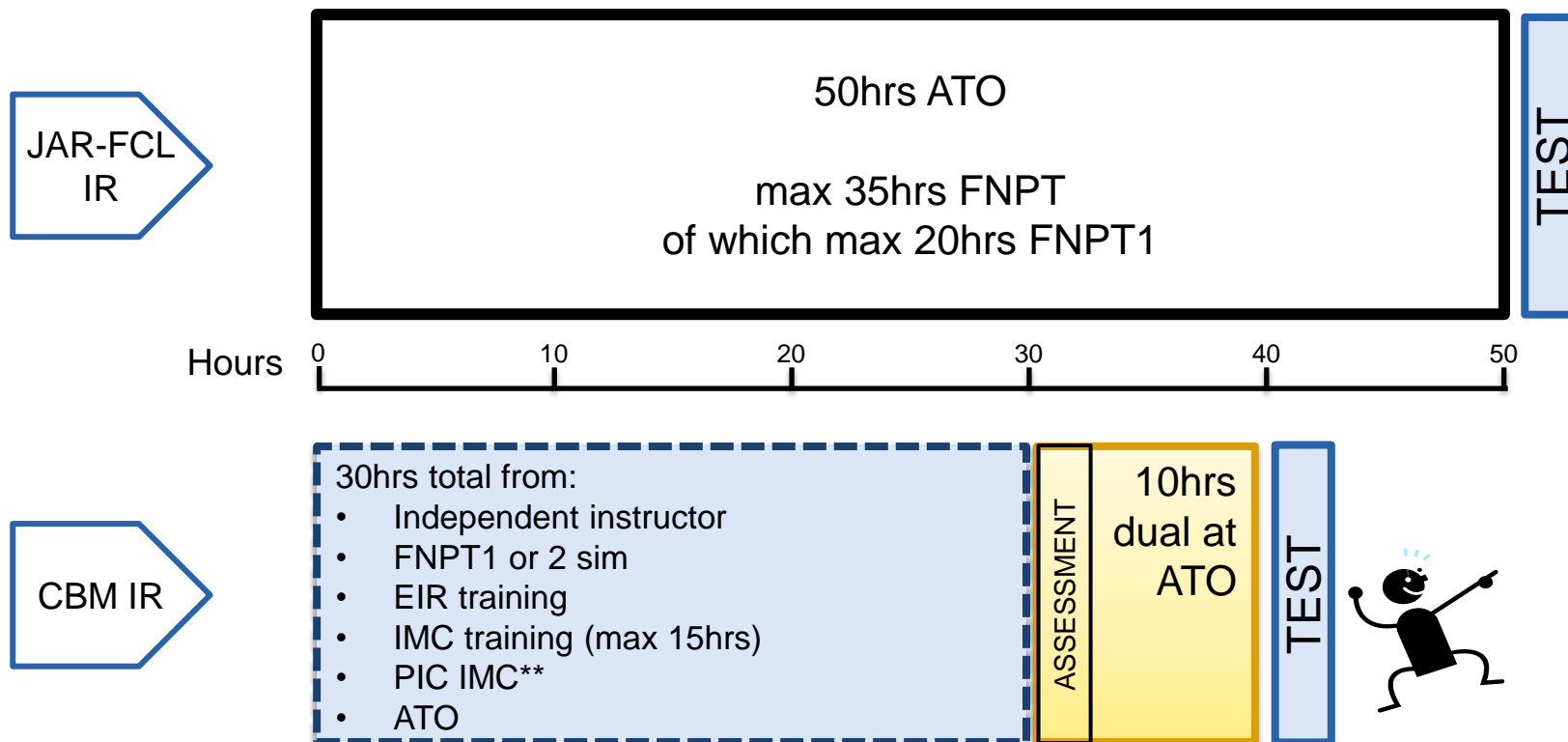
	Typical ATPL Cadet	Typical PPL/IR candidate
Personal status	Late teens-early twenties Single Full-time aviation student	Middle-aged Married with children Full-time employment
Location and timing of training	Able to reside full-time at an ATO location	Needs to train close to home and at weekends and evenings
Access to aircraft	Constrained by finances, need to do everything in minimum hours and max FNPT2 use	Often an aircraft owner or part-owner. Flies 100hrs/yr or more, hundreds of hours of experience. Adding experience not a problem.

- ✦ Requirement is for more flexible training better suited to the needs of the private IR candidate:
- ✦ The same high standards for flight tests must remain!

Highlights of New Regulations

- ★ First review of private IR training since JAR in 1999
- ★ Proposal for IR training that:
 - is competency-based: minimum training hours mandated
 - is modular: may be built from blocks of experience over time
 - is flexible: most of the training can be provided at the local club
 - has reduced theoretical knowledge
- ★ Has the same IR skill test as for ATPL candidates
- ★ Timing:
 - Notice of Proposed Amendment published September 2011
 - Approved by EASA Committee late 2013
 - Regulation published 14th March 2014, in force from 2nd April
 - First courses and exams late 2014?

Comparison: CBM IR with JAR-FCL



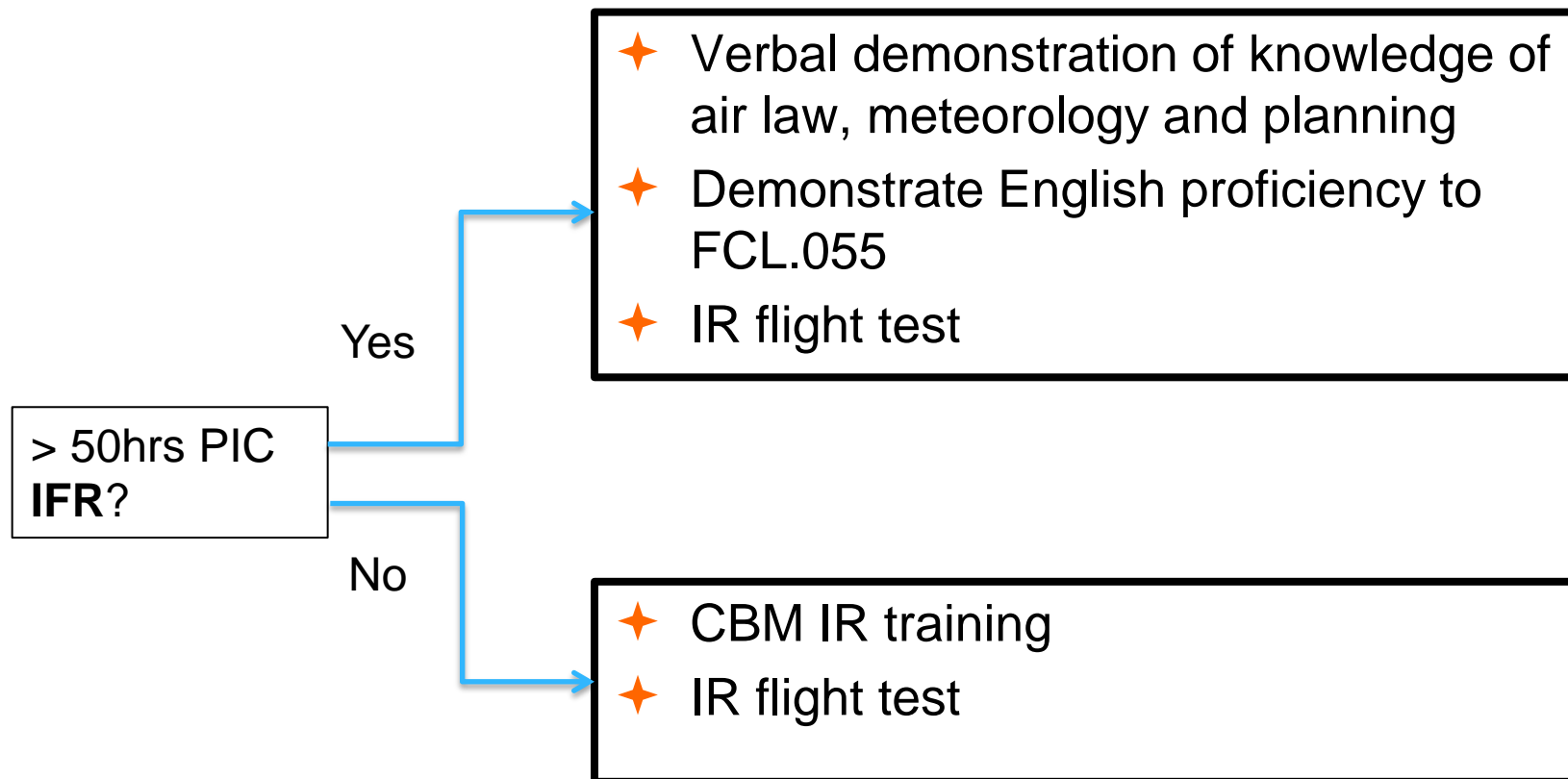
Competency-based
Modular
ICAO minimum time
Same as FAA

Notes:

1. Times quoted for single engine aircraft
2. Minimum 25 hours dual instruction required for IR
3. ** for pilot with IFR qualification e.g. EIR or UK IMCR

3rd country (e.g. FAA) IR conversion

Available from April 2nd 2014, **must be completed by April 8th 2015**



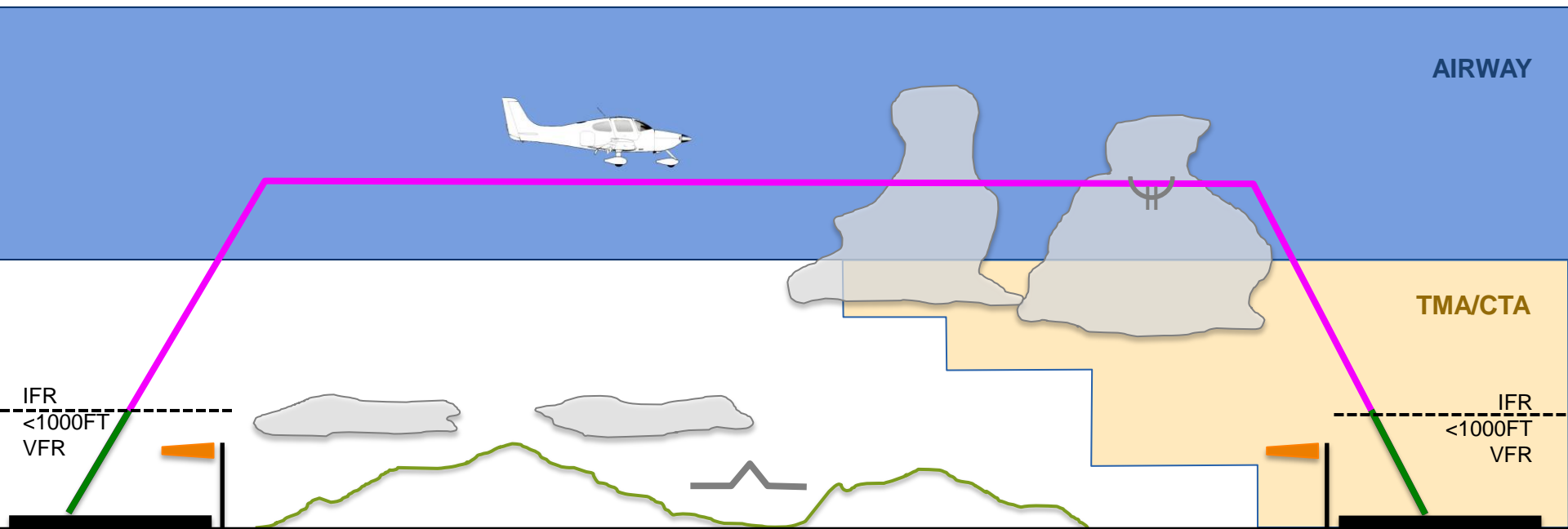
FAA IR conversion



BASA ???

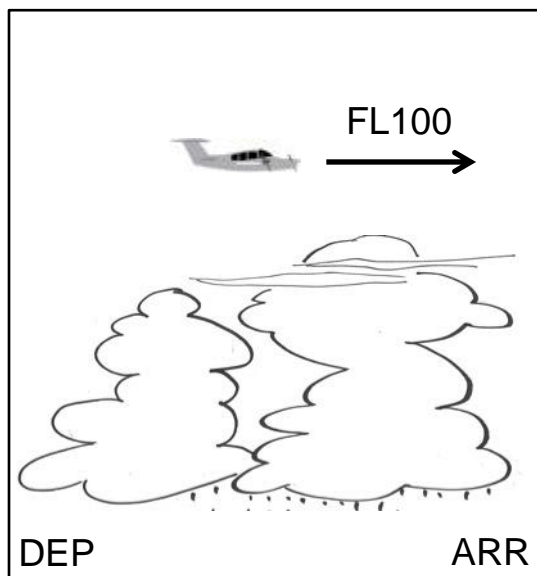
EIR privileges and benefits

- ✦ First step to access the benefits of the IFR system
- ✦ Simple navigation, smooth air, no scud-running
- ✦ Improved transport reliability
- ✦ All classes of airspace
- ✦ No instrument approaches, SIDs or STARS
- ✦ VFR below IFR enroute minimum on departure and arrival

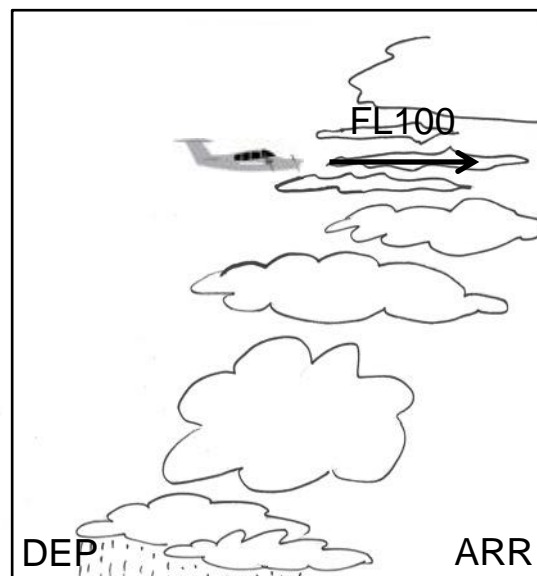


Use of EIR privileges

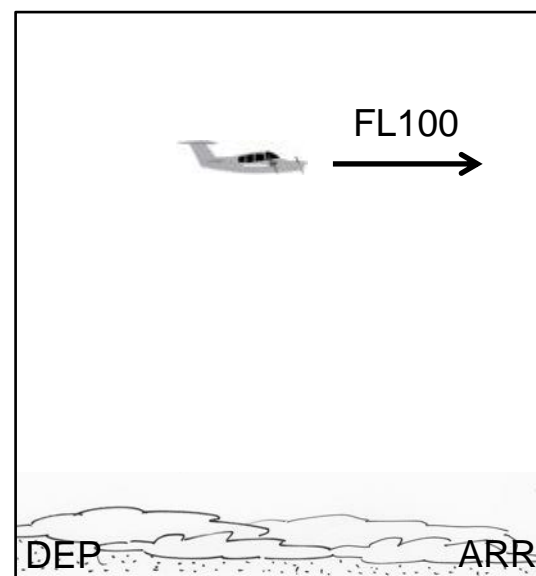
- ✦ For the leisure pilot who is not interested in hard IMC
- ✦ Enroute safety under IFR in all classes of airspace
- ✦ Essentially for IFR, as opposed to IMC



Summer convection



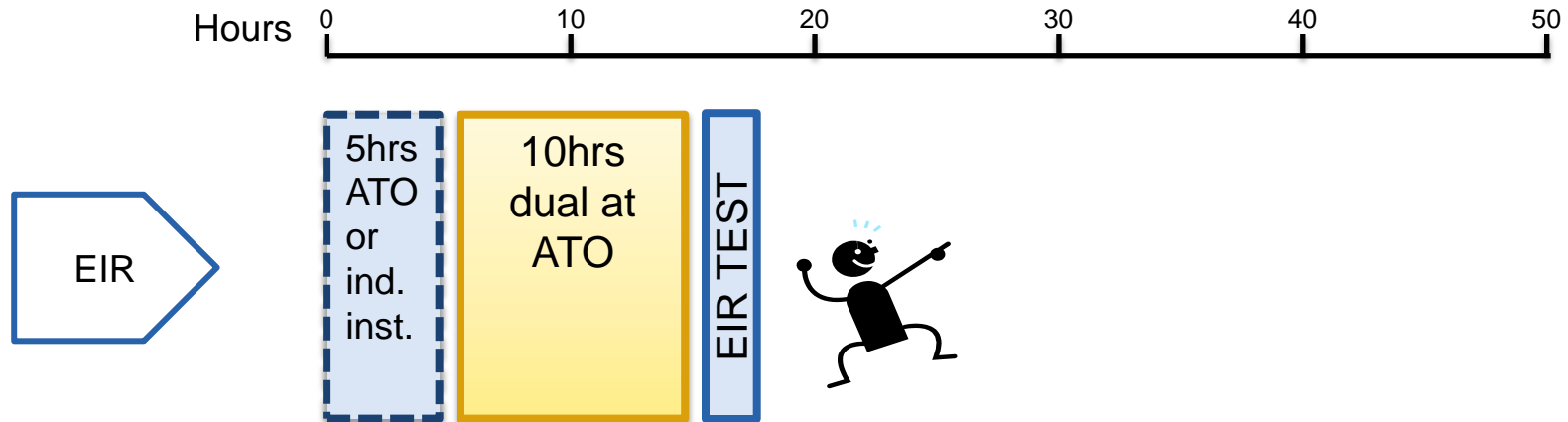
Frontal



Low stratus/low vis



En-route instrument rating training

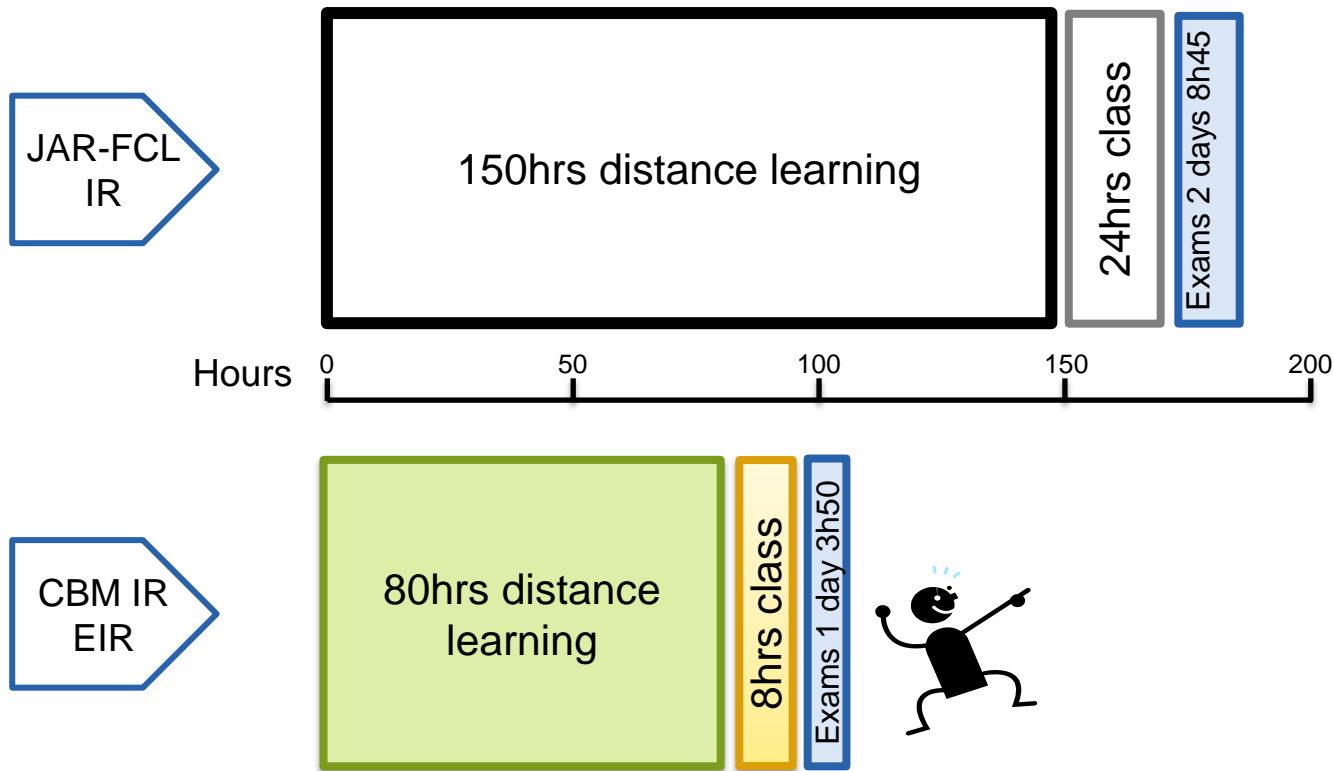


Lowest training time for entry into IFR system
Training time and PIC time counts for CBM IR

Note:
Times quoted for single engine aircraft

Comparison: Theoretical Knowledge

Same theoretical knowledge requirements for EIR as for IR



-50% learning objectives (i.e. syllabus)

Comparison of EIR, IMCR and IR(R)

- ★ IMCR and IR(R) **are not the same**, but look, feel and smell the same and are convertible.
- ★ The IR(R) is EASA licences, IMCR for national licences
- ★ The EIR and IR(R) both stepping stones to CBM IR
- ★ Otherwise completely different – opposite

Comparison of EIR, IMCR and IR(R)

IR(R)	EIR
Approach privileges	No approach privileges
UK Only	Europe-wide
Class D-G only	All Classes including Class A
No compulsory classroom, slight TK, easier exams	Compulsory classroom, Comprehensive TK, tougher exams
Lower Instructor and Examiner requirements – Taught in Clubs	Higher Instructor and Examiner Requirements - Taught in ATOs

Comparison of EIR, IMCR and IR(R)

- ★ Which to choose depends on mission
 - Europe on nice days – EIR
 - Business meetings around UK – IR(R)
- ★ EIR + IR(R) = Dream Ticket?
 - Poor weather in UK
 - Good weather in South of France
- ★ **Once you have either, better to get IR than the other**
 - EIR → IR 10 hours
 - IR(R) → IR 10 hours + TK
 - IR(R) → EIR 10 hours + TK

IMCR and IR(R) Timescales

- ★ IMCR is National and safe forever
- ★ IR(R) only implemented in UK - bucks the EASA model
- ★ Some EASA countries wanted it stopped, CAA strong champions
- ★ Temporarily saved until 2019, review in 2017
- ★ Review of both of Safety and continued Requirement
- ★ If EIR replaces IR(R), IR(R) will wither and die
- ★ If IR(R) found unsafe, it may be discontinued
- ★ CAA must convince EASA to keep it
- ★ CAA very much on side for keeping it

Concluding comments

- ✦ IFR: increases the utility of light aircraft for transport
- ✦ PPL/IR Europe: a support network of like-minded pilots
- ✦ PPL/IR Europe: protecting fair access to IFR for light GA
- ✦ CBM IR offers flexible, competence based training
- ✦ EIR: entry to IFR & CAS with proportionate training overhead
- ✦ Also route from IMCR/IR(R)

- ✦ This is best news for private IFR ever

PPL/IR Europe are there for you. We are respected by EASA. Join us and we can do more.

Questions?



PPL/IR EUROPE

Speaker's notes: FAQ discussion



- ✦ Why reduced TK?
- ✦ Why same TK for EIR and IR?
- ✦ Why “enroute-only” for the EIR?
- ✦ Why the Competence-Based training?
- ✦ Why the Independent Instructor element?
- ✦ How will it affect Commercial training?
- ✦ How will it affect IFR traffic volumes?
- ✦ How will it affect safety?
- ✦ What about the EIR safety question?

Speaker's notes: why reduced TK?

- ★ JAR-FCL TK
 - Works reasonably well for ATPL; the CPL and IR TK were an “afterthought”
- ★ JAA IR TK has a deservedly awful reputation
 - Vast amount of material irrelevant to the IR’s incremental privileges
 - There is no place for “artificial gate-keeping difficulty” in EASA-FCL
- ★ FCL008 IR TK was the first review of an old JAA syllabus under EASA (no time during original FCL001)
- ★ TK syllabus reduced to omit material not relevant to the incremental privileges of the IR. That’s all there was to it!
- ★ EASA FCL has many elaborate training and TK requirements for ‘advanced’ flying
 - ATPL, CPL, HPA, Type and Class Ratings all require additional TK, so not necessary to “bundle” advanced material with “plain” IR

Speaker's notes: why same TK for EIR and IR?



- ★ Nature of TK in IFR flying
 - Whilst there are very significant differences in flight training, testing and privileges between the IR and EIR.....
 -there is not a correspondingly great difference when one actually looks at the TK syllabus – very little IR TK is specific to flying approaches, so an “EIR TK” syllabus might not be meaningfully smaller

- ★ Practicality
 - Very limited resources in EASA and amongst stakeholders to create and administer new Exams
 - It would probably increase the “new exam requirement” from 1 to 3 (ie. an IR TK, an EIR TK and an “EIR to IR upgrade TK”)
 - There is an advantage to having the path from EIR to IR as simple as possible

Speaker's notes: why “enroute-only” for the EIR?



- ★ A sub-IR qualification needs meaningful privilege restriction if the training is to be meaningfully reduced
 - Airspace restrictions that work in the UK do not work across Europe (eg. Germany where there is no Class A)
 - Weather restrictions would not meaningfully reduce the training requirement (how much time is spent teaching the ILS from 500' to 200' at present?)
 - Operational restrictions (eg. no flight above 10,000', no flight in aircraft with more than 4 seats etc etc etc) would achieve no reduction in training, since the present IR is something that can be taught and tested in a low-powered 2 seater

- ★ European stakeholders are not going to fall for a “back-door” IMCr

Speaker's notes: why Competence-Based training?



★ Outcome of JAR-FCL

- For professional training, considered a success
- For private pilot training, not a success (but not a disaster): reduction in accessibility, increase in cost, no safety benefit: hence the EASA LAPL
- For advanced private pilot training, a total failure
 - » An embarrassingly miniscule number of European non-professional pilots develop their skills with more advanced training and qualifications
 - » An especial failure in respect of the JAR-FCL PPL/IR

★ The problem....

- ...is not standards. No-one disputes the content or tolerances of the IR skills test
- ...it is training. JAR-FCL drove the training industry into a 2 tier structure. IR training is in the FTO domain.
- FTO courses are well suited to young cadets training full-time Mon-Fri for months on end
- They are totally unsuited to mature candidates, who need flexibility in training and skills development

Speaker's notes: Why Competence-Based training?



	Typical ATPL Cadet	Typical PPL/IR candidate
Personal status	Late teens-early twenties Single Full-time aviation student	Middle-aged Married with children Full-time employment
Location and timing of training	Able to reside full-time at an FTO location	Needs to train close to home and at weekends and evenings
Access to aircraft	Horribly constrained by finances, need to do everything in minimum hours and max FNPT2 use	Often an aircraft owner or part-owner. Flies 100hrs/yr or more, hundreds of hours of experience. Adding experience not a problem.
<u>Ideal</u> course	The existing, intensive IR course	Probably, the <u>same</u> existing, intensive IR course
<u>Actual</u> course undertaken	The existing, intensive IR course	At present: nothing or an IMCr or an FAA IR. The JAA IR is not practical for more than a dozen PPLs/yr in the UK. The PPL community needs a more flexible training process – hence the Competence-Based method

Speaker's notes: why Independent Instructor?

- ✦ The new MPL qualification recognises that if you are going to fly this:



- ✦why train on that?:



Speaker's notes: why Independent Instructor (2)?

- ★ The Competence-Based method recognises that many private IR candidates will be flying something like this:



- ★and practically none will fly the typical training aircraft available at FTOs



Speaker's notes: why Independent Instructor (3)?

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Typical PPL/IR candidate
Needs to train close to home and at weekends and evenings
Often an aircraft owner or part-owner. Flies 100hrs/yr or more, hundreds of hours of experience. Adding experience not a problem.

- Standards should be assured by the system of instructor training and currency. Nevertheless, there are 2 additional protections
 - Mandatory 10hr ATO course, and pre-course assessment
 - Skills Test

Speaker's notes: how will CPL training be affected?



- ★ Any modular commercial candidate will be able to use the CB-IR towards a “frozen” ATPL
- ★ However, we anticipate that there will be little impact on existing modular FTOs
 - Firstly because the advantages of the Competence-based method are efficient for candidates who are “flying hours rich” and “logistically inflexible”. An ab-initio cadet will be better served by using the FNPT2-intensive Modular route. They can’t afford ad-hoc weekend training trips to the continent to build IFR experience....
 - Secondly, because there has already been an alternative to the Modular IR which is comparable to the proposed CB-IR, the FAA to JAA IR conversion (which requires 10hrs FNPT2 and 5hrs aircraft training). The take-up of this route by Commercial candidates has been negligible.
- ★ Conversely, the greater accessibility of the IR should increase the volume of private candidates training at FTOs in the future, well above the present near-zero level

Speaker's notes how will IFR traffic volumes change?



- ✦ The effect on IFR traffic volumes is unlikely to be significant
- ✦ Europe already has an IR training method which is more accessible and less expensive than the proposed CB-IR, it is the FAA IR
- ✦ As the CB-IR is introduced, the FAA IR will stop being valid for EU residents
- ✦ Our hypothesis is that anyone in the future attracted to IFR flight by the CB-IR would, past and present, have gotten an FAA IR. Therefore we don't anticipate a significant increase. There might even be a net decline....

Speaker's notes: how will safety be affected?

- ✦ We prefer to be cautious making safety claims. Single-pilot IFR in light aircraft has its own distinct risks which need to be managed carefully. However, this risk is effectively zero to 3rd parties (EASA statement)
- ✦ Weather-related accidents in light aircraft almost never happen in a fully controlled SID-Airway-STAR-IAP environment. They invariably relate to low-level, ad-hoc IFR or VFR-into-IMC. We believe that training European pilots for European qualifications and bringing them “into the system” will benefit safety
- ✦ On training standards, our comment is that high standards are useless if no-one actually undertakes the training. In effect, no PPL undertakes the current JAA IR training. We believe that ongoing training and skills development is inherent to GA safety, and we believe a more accessible IR will benefit safety through attracting more PPLs to advanced training

Speaker's notes: what about EIR safety?



- ★ Some stakeholders have been quick to conjecture risk scenarios for EIR pilots trapped in unforecast IMC and unable to descend to VFR above MSA
- ★ We believe these scenarios have been greatly exaggerated. It takes a combination of
 - weather worse than forecast at destination
 - and at an alternate
 - and anywhere within safe fuel range

before an EIR holder needs to declare an emergency. In that case, the unforecast ceiling may be below 1000' – but it's likely to be well above IAP minima. The emergency approach training in the EIR will be a mitigation of this scenario

Speaker's notes: what about EIR safety (2) ?

- ★ All GA (VFR or IFR) is vulnerable to scenarios of unforecast adverse weather
 - A “rusty” VFR pilot should not fly in forecast marginal VMC
 - A “rusty” IMCr holder should not fly to a forecast of the recommended IMCr minima
 - A “rusty” IR holder should not plan on flying to forecast IR minima
- ★ Somebody, somewhere is clearly going to get into trouble using their EIR privileges, as they do today using PPL, IMCr or IR privileges.
- ★ The point of the EIR is that the net benefit of formal IMC training and qualifications should outweigh the risks (especially across Europe where the IMCr is not available, and VFR-into-IMC accidents are more frequent)