

## Autumn 2019 - UPDATE

*This update highlight's details of recent changes to Part-FCL and includes a comprehensive guide covering the content of refresher flight training exercises. It also sets out an amendment to an item presented in the recent Autumn 2019 issue.*

### In this issue:

- FI and FE Assessment of Competence (Amendment)
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### FI and FE Assessment of Competence (Amendment)

The Assessment of Competence (AoC) for the FI listed at AMC3.FCL.935 and the Examiner Assessment of Competence (EAoC) listed at FCL 1020 are to be conducted as separate events on separate days.

To attempt to conduct both AoC's on the same day would be unrealistic and could lead to a Regulation 6 Appeal by a candidate, or scrutiny by the Authority.

### Changes to Part-FCL (Effective 11 November 2019)

There are changes to Part-FCL which includes LAPL, PPL, Night Rating, IR and Class and Type Ratings.

However, the intention here is only to highlight amendments to the Instructor (Subpart J) and Examiner (Subpart K) sections of the Aircrew Regulation. The information below has been provided by Nick Wilcock of AOPA and is, as such, an unofficial document and for guidance only.

Therefore, the source document for information relating to this amendment is (EU) 2019/1747 to Commission Regulation (EU) 1178/2011, which has recently been published and came into force on 11 November 2019.

<b>FCL.900 Instructor certificates</b>	(c) Clarification of Instructor Certificate requirements for instruction provided outside the territory of the Member States.
<b>FCL.935 Assessment of competence</b>	(a) Assessments of Competence for instructor certificates must be passed in the appropriate aircraft category, in the relevant class or type or in the appropriate FSTD.
<b>FCL.940 Validity of instructor certificates</b>	Instructor certificates valid for 3 years must also include annual UPRT refresher training if the instructor conducts advanced UPRT course training.
<b>FCL.905.FI FI - Privileges and conditions</b>	Revised paragraph contents:

	<p>(a) (unchanged).</p> <p>(b) Clarification of class and type rating instructional requirements.</p> <p>(c) Introduces requirements for FI conducting class and type rating training on single pilot (except HPA complex) aeroplanes in multi-pilot operations.</p> <p>(d) (was (c) and refers to airships.)</p> <p>(e) (was (d) and refers to CPL training requirements).</p> <p>(f) (was (e) and refers to Night Rating training requirements).</p> <p>(g) (was (f) and refers to towing, aerobatic or sailplane cloud flying training requirements).</p> <p>(h) (was (g) and refers to EIR and IR training requirements).</p> <p>(i) (was (h) and refers to single-pilot (except HPA complex aeroplanes) multi-engine class or type ratings training requirements).</p> <p>(j) (was (i) and refers to instructors delivering instruction for instructor certificates).</p> <p>(k) (was (j) and refers to MPL training requirements).</p>
<b>FCL.915.FI FI - Prerequisites</b>	<p>(b)(2)(i) re-written to state '(i) except for an FI(A) providing training for the LAPL(A) only, passed the CPL theoretical knowledge examination, which may be taken without completing a CPL theoretical knowledge training course and which shall not be valid for the issue of a CPL; and'</p> <p>(c)(2) re-written to state '(2) at least 200 hours as PIC if the applicant holds at least a PPL(H) and has passed the CPL theoretical knowledge examination, which may be taken without completing a CPL theoretical knowledge training course and which shall not be valid for the issue of a CPL;'</p> <p><i>NOTE - if the exams are taken by those who have completed a CPL theoretical knowledge course, they will of course be valid for CPL issue.</i></p>
<b>FCL.930.FI FI - Training course</b>	(c) Deems those who hold or have held any other Part-FCL Instructor Certificate as meeting the 25 hr teaching and learning requirements.
<b>FCL.940.FI FI - Revalidation and renewal</b>	<p>Clarification of FI revalidation and renewal requirements.</p> <p><i>NOTE - AMC (tbd) FCL.940.FI(a)(2) will specify refresher seminars as a means of complying with FCL.940.</i></p>
<b>FCL.905.TRI TRI - Privileges and conditions</b>	<i>Please refer to amendment document</i>
<b>FCL.910.TRI TRI - Restricted privileges</b>	<i>Please refer to amendment document</i>
<b>FCL.915.TRI TRI - Prerequisites</b>	<i>Please refer to amendment document</i>
<b>FCL.930.TRI TRI - Training course</b>	<i>Please refer to amendment document</i>
<b>FCL.935.TRI TRI - Assessment of competence</b>	<i>Please refer to amendment document</i>
<b>FCL.940.TRI TRI - Revalidation and renewal</b>	<i>Please refer to amendment document</i>
<b>FCL.905.CRI CRI - Privileges and conditions</b>	New para (ba) introduces requirements for CRI conducting class and type rating training on single pilot (except HPA complex) aeroplanes in multi-pilot operations.
<b>FCL.930.CRI CRI - Training course</b>	(a)(3) introduces option of FSTD instruction for CRI ME training; 5 hr of total time, although at least 3 hr must be on the aeroplane.
<b>FCL.940.CRI CRI - Revalidation and renewal</b>	(a) now requires CRI to complete '2 out of 3' revalidation requirements of paras (a)(1), (a)(2) and (a)(3).
<b>FCL.915.IRI IRI - Prerequisites</b>	(b)(2) refers to revised FCL.905.FI paragraph referencing.
<b>FCL.930.IRI IRI - Training course</b>	(a)(3)(ii) reduces IRI(H) flight time requirements for applicants already holding an FI(H) certificate.
<b>FCL.1000 Examiner certificates</b>	<p>(a) No significant change in General requirements for Examiner certificate holders.</p> <p>(b) Additional special conditions; <i>please refer to amendment document.</i></p>

	(c) Clarification for requirements applicable to Examinations conducted outside the Member States.
<b>FCL.1005 Limitation of privileges in case of vested interests</b>	(a) Removes previous (a)(2) which barred Examiners who had been responsible for recommendation for the skill test in conducting the test.
<b>FCL.1025 Validity, revalidation and renewal of examiner certificates</b>	(b)(1) Examiners must now complete 6 tests during the validity period, rather than 2 in each of the 3 years.  (b)(3) Assessed test and assessment of competence must be in the final year of the validity period.  (c) Examiner certificate renewal requirements must be completed within the 12 months preceding the renewal application.
<b>FCL.1005.TRE TRE - Privileges and conditions</b>	<i>Please refer to amendment document</i>
<b>FCL.1005.CRE CRE - Privileges</b>	(b)(2)-(b)(4) Clarification of requirements for CREs conducting IR and/or EIR proficiency checks.
<b>FCL.1010.CRE CRE - Prerequisites</b>	(b) CRE certificate applicants must hold CRI or FI certificate for the applicable class or type.
<b>FCL.1010.IRE IRE - Prerequisites</b>	(a) IRE(A) certificate applicants must hold IRI(A) or FI(A) certificate with IR(A) instructional privileges.  (b) IRE(H) certificate applicants must hold IRI(H) or FI(H) certificate with IR(H) instructional privileges.
<b>FCL.1005.SFE SFE - Privileges and conditions</b>	<i>Please refer to amendment document</i>
<b>FCL.1010.SFE SFE - Prerequisites</b>	<i>Please refer to amendment document</i>
<b>Appendix 1 - Crediting of theoretical knowledge</b>	1.1 LAPL(A) holders applying for LAPL(H) will be credited with theoretical knowledge of the common subjects in FCL.120 which now includes navigation, as will LAPL(H) holders applying for LAPL(A).  1.2 LAPL(A), LAPL(H) or PPL applicants holding a PPL, CPL or ATPL in another aircraft category will be credited with theoretical knowledge of the common subjects in FCL.215(a)(1).
<b>Appendix 3 - Training courses for the issue of a CPL and an ATPL</b>	A.9(b) Limit of 55 hrs as SPIC within the 70 hrs PIC requirement; SPIC IFR time as PIC limited to 20 hrs.  C.8(b) Limit of 55 hrs as SPIC within the 70 hrs PIC requirement; SPIC IFR time as PIC limited to 20 hrs.  D.8(b) Up to 55 hrs of the PIC time may be as SPIC.  E.3(a) Clarification of PIC time in other categories of aircraft towards 150 hrs total flight time requirement for modular CPL(A) issue.  K.3(a) Clarification of PIC time in other categories of aircraft towards 155 hrs total flight time requirement for modular CPL(H) issue.

## Suggestions for the content of refresher flight training exercises

The article below is a comprehensive guide and therefore can be used appropriately. It was prepared by Carol Cooper and Mike Derrett with contributions from Chris Martin and Nick Wilcock who are all members of the AOPA Training and Education Committee.

### 1: Introduction and background

This document has been prepared to offer some ideas and guidance on the content of the refresher flying which is required every two years to revalidate an SEP or TMG Class Rating based on experience. It should be noted that the correct EASA term for such flights is 'refresher training' and there is no pass or fail requirement, only compliance is required. Current minimum requirements for revalidation by experience for PPLs with SEP and/or TMG Class Ratings are;

- 12 hours flight time in the 12 months preceding rating expiry to include a minimum of 6 hours PIC, 12 T/O & Landings;
- Refresher training totalling at least one hour with an FI or CRI in the last 12 months of rating validity, with the flight signed off in the pilot's log book and the licence signed when all requirements have been met. This hour of refresher flying may be replaced by an appropriate LPC, skill test or assessment of competence in any other class or type of aeroplane.
- Revalidation by experience may be completed at any time in the last 12 months of rating validity.

Current minimum requirements for maintaining LAPL recency are different and the following minimum requirements need to be met within the 24 months preceding the date of flight;

- 12 hours flight time as PIC including 12 T/O & Landings;
- Refresher flight training of at least one hour total flight time with an FI or CRI (Log book sign-off is not required at LAPL level, but is strongly advised. Instructors are also advised to keep a record of with whom they flew).

Currently there are no guidelines issued by EASA or the CAA for the content of a refresher training flight except that the exercises to be covered should be decided and agreed between the Instructor and the pilot. It is not a test with a pass/fail requirement and the Instructor cannot refuse to sign the pilot's log book.

The refresher flight training requirement may now be conducted by more than one FI or CRI and in more than one flight providing that the total achieved is a minimum of one hour. All Instructors must sign the pilot's log book for such flights. The Instructor who completes the hour may also sign off the Certificate of Revalidation in the pilot's licence if the Instructor's licence is endorsed with FCL.945 or if they are an appropriate Flight Examiner.

Should the pilot be willing, a refresher flight is the ideal opportunity for further training both on the ground and in the air. The option of a more detailed ground school and an extended flight should be emphasised and promoted.

## **2: Common points observed by Instructors conducting check flights**

The average private pilot once qualified will probably only fly with an Instructor during refresher flight training, therefore the flight is a valuable opportunity to evaluate common points of weakness as well as including exercises that the pilot may want to cover, with emphasis on safety and good practice.

The following is a list of points commonly noted by Instructors carrying out checks and refresher flights:

### **Pre-flight**

- The Threat and Error Management (TEM) concept is very rarely used, many PPL holders have not heard of or do not understand the concept.
- Difficulty in preparing a Mass and Balance calculation.
- Lack of departure brief and passenger safety briefing.

### **Departure**

- Lack of lookout in the climb, few check flight pilots do this properly, if at all.
- Upper air work
- Incorrect standard stall recovery.
- Poorly flown steep turns.

### **Emergencies and systems failures**

- Partial engine failure is rarely practised and many pilots may never have practised this before. However, according to studies in Australia, it is three times more likely than an outright engine failure.
- Incorrect procedures for handling in flight fires.
- Lack of knowledge of emergency descent procedures.
- Lack of knowledge of the aircraft's systems.
- Lack of understanding of the symptoms of a failure or problem.

### **Navigation**

- A practice diversion using map reading and paper PLOG is proving a difficult exercise for many, especially without GPS or other electronic aids.
- Lack of correct use of paper PLOG and map due to over reliance on GPS.
- Incorrect use of GPS due to a lack of structured training in its use.

### **Circuits**

- Poor speed control on final approach especially with wind shear issues in the last 200'. This is especially noticeable with lighter GA types which are more susceptible to this issue. This has contributed to fatal accident statistics in the past.
- Inability to fly a standard overhead join.
- Inability to fly precision landings on short runways.

## **3: Refresher training – suggestions on format and exercises to be included:**

The following is a suggested list of exercises which could be included in refresher training. A very effective teaching aid is to set up scenarios that will help the pilot relate to real flying world issues, including emergencies and how to handle them successfully.

## Ground briefing and pre-flight

- Check licence, medical, address, ID and log book etc. Very often there are issues here that may require an LPC rather than a refresher flight.
- Check English language proficiency is valid if not level six.
- Check the pilot is aware of the Skyway code (new edition version 2 published May 2019) and where to ascertain information such as met, NOTAM's etc.
- Mass, balance and performance calculations (if time is short this could be prepared by the pilot before the briefing).
- Discuss with your pilot the use of threat and error management and get them involved. For example, ask them about any threats to their safety during their flight with you and how they can be mitigated, such as a wet grass runway or a crosswind. Are they aware of 'Take 2' (Maintain 200' vertical and 2 nm lateral separation from controlled airspace)?
- Suggest self-study of a long briefing on TEM such as (at time of writing): <https://www.airpilots.org/file/2868/ppl-lesson-plans-2018.pdf>
- Use of the WANT mnemonic: Weather, Aircraft, NOTAM's and Threats.
- Use of the I'M SAFE mnemonic: Illness, Medication, Stress, Alcohol, Fatigue and Eating.
- Do they give a take-off/eventualities brief? If not, discuss one suitable for them.
- Suggest a briefing pack to help with mass and balance, NOTAM's and weather etc. Some of the flight planning/nav systems such as Sky Demon include these and are quick and easy to use once the aircraft is in the library. If a number of aircraft are routinely flown, they can all be put in the library for use when required.
- Are they aware of listening squawks, where to find them, what they are for and how to use them?
- Review other less well-known squawks applicable to GA such as the lost code 0030, aerobatics 7004 and operations in some aerodrome traffic patterns 7010. Others are to be found at AIP ENR 1.6 ATS Surveillance services and procedures.
- Prepare a written PLOG for any navigation flight (if time is short this could be prepared by the pilot before the briefing).

## Flight exercises, departure, navigation and emergencies

- Bring TEM into the pre-flight briefings and engage the pilot in this.
- It would be useful to do some navigation during the refresher flight (perhaps to the local flying area before the upper air exercises) due to the high number of infringements of controlled airspace. For example, a short cross country using a PLOG and map without GPS to establish the pilot's basic navigation and map reading skill level.
- If your pilot uses GPS, get them to plan a short leg to your local flying area and then maybe suggest that a diversion is planned without the use of GPS. Are they able to do so?
- During the flight a mid-air emergency collision avoidance steep turn, perhaps briefing beforehand that this will be carried out as an exercise at short notice by the Instructor.
- Departure stall recovery for a private pilot can be an unsettling, high nose attitude, high power, slow speed event which if not corrected will ultimately lead to an unpleasant stall and likely wing drop. A refresher training flight provides an ideal opportunity to demonstrate this manoeuvre to the stalled condition. GASCO research indicates that loss of control accidents are more likely on departure than on the approach.
- According to the Australian Transport Safety Board research report AR-2010-055 at [www.atsb.gov.au](http://www.atsb.gov.au), occurrences of partial engine power loss occur three times more often than a total power loss. So, consider a partial power scenario with a rough running engine with only enough power for level flight available. Ask your pilot what actions they would carry out, perhaps if they suggest diverting, ask them where to? What heading and what RT call? Suggest then that the engine is running more roughly and power is now down to a setting where level flight is no longer possible. Hopefully they will suggest a precautionary landing which can be carried out to a safe height or you can then simulate a total engine failure as you close the throttle to complete a PFL.
- Consider the scenario of an engine fire with a practice emergency descent (a procedure which is not always given in flight manuals), a choice between a VNE dive, full flap descent at VFE or a side slip. Some of these procedures may need a demonstration and subsequent practice.
- Suggest a scenario where the low voltage light has come on, or vacuum pressure is low. Does your pilot go to the check list to carry out the correct actions, or do they know the correct actions?
- Other possible scenarios are that the brakes have failed and what action would they take, or what to do if the door opens in flight.
- On return to base, with destination in sight or from an overhead join, set up the scenario that the airfield is closed and you have to divert. Check for suitable planning with map and estimated heading, ETA etc. This exercise could also be done with GPS to check the correct use of the system's facilities ('Direct To' button etc.). It is not necessary to carry out a complete diversion as an assessment of planning and initial track will probably be sufficient.
- Simulated fuel leak, what actions to take?
- Simulated stuck throttle, what actions to take?
- Simulated bird strike, with some damage to a wing leading edge, what actions to take?
- Simulated asymmetric flap, what actions to take?
- Simulated poor visibility and low cloud base and the need to carry out a 180 degree turn on instruments.

### **Flight exercises, arrival and circuits**

- Carry out a standard overhead join.
- A flapless landing will show the additional runway length required. Ensure the pilot aims to touch down at a pre-determined point using a precision landing technique; this may sometimes be demanding for pilots not used to shorter runways. Encourage precision landings with accurate touchdowns to use the minimum length of the runway.
- Carry out a landing simulating failure of the air speed indicator.
- Go-around actions simulating a blocked runway.
- De- brief
- In addition to the flight de-brief additional items can be reviewed such as the use of marshalling hand signals (for example, few pilots will be able to recall the hand signal used by the marshaller to indicate a fire) and the importance of knowing the location of fire extinguishers and equipment on the ground.

It is understood that you will not be able to carry out all these exercises in one hour, but we hope that this document will give Instructors some ideas so that they can discuss and choose appropriate exercises for the pilot with whom they will be flying. It is our hope that your pilots will both enjoy and learn from their refresher flight training with you.

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### **Useful links**

- Skyway code: <https://www.caa.co.uk/General-aviation/Safety-information/The-Skyway-Code/>
- Safety sense leaflets: [www.caa.co.uk/safetysense](http://www.caa.co.uk/safetysense)
- Airspace & Safety Initiative: <https://airspace-safety.com/>
- Clued up: <http://publicapps.caa.co.uk/docs/33/CluedupSummer19.pdf>