

Licensed Aircraft Engineers: On the Job Training (OJT) for the first type rating in any Category or subcategory of a UK Part-66 Aircraft Maintenance Licence

CAP 1530



Published by the Civil Aviation Authority, 2023

Civil Aviation Authority Aviation House Beehive Ring Road Crawley West Sussex RH6 0YR

You can copy and use this text but please ensure you always use the most up to date version and use it in context so as not to be misleading and credit the CAA.

First published 2017 Fifth edition 2023

Enquiries regarding the content of this publication should be addressed to: ELDWEB@caa.co.uk

The latest version of this document is available in electronic format at: www.caa.co.uk

# Contents

Contents	3
Revision history and effective pages	4
Chapter 1	5
1. Introduction	5
2. Training Privileges	6
3. Logbook content	6
4. Simulation	8
5. OJT Assessment	8
6. Approving the conduct of the OJT by the UK CAA	8
7. Qualifications	10
8. What happens next?	10
9. Contacts	11
Appendix A – Abbreviations	12
Appendix B - Aircraft Rating Requirements	13
Appendix C - Sample Certificate of Completion / Compliance Report	14

# Revision history and effective pages

Revision Number	Major / Minor Revision	Summary of Revision	Date
01	Major	Initial Issue	April 2017
02	Minor	Update	Nov 2017
03	Minor	Update	Feb 2018
04	Minor	Update	Sep 2019
05	Major	New CAP format & EU Exit	Sep 2023

#### Chapter 1

### 1. Introduction

OJT should not be confused with Practical Training which is conducted by Part-147 organisations. (Guidance for this is covered under <u>CAP1529</u> Part 147 Practical Training Guidance).

OJT is a supervised event rather than an instructed one and should include one to one supervision and involve actual work task performance on aircraft/components, covering line and/or base maintenance tasks. The completion of the pre-agreed tasks should be in a logbook format, issued by the Part-145 organisation to the student and carried out under the direct supervision of an engineer approved to complete the tasks. These tasks constitute further 'type contact' to consolidate the Theory and Practical training and to gain experience in performing safe maintenance on their first type in each subcategory.

The organisation providing the on-the-job training should provide trainees a schedule or plan indicating the list of tasks to be performed under supervision. A record of the tasks completed should be entered into a logbook which should be designed such that each task or group of tasks is countersigned by the corresponding supervisor. The logbook format and its use should be clearly defined.

For the endorsement of the first type rating in each Part-66 aircraft maintenance licence subcategory the completion of On-the-Job training is required, as stated in Part 66.A.45. This is mandatory for group1 aircraft. For groups 2 and 3 aircraft, OJT is not required if an oral examination is conducted in place of type training (Theory and Practical). If type training is conducted, OJT will again be required (GM 66.A.45). See Appendix B of this document for clarification.

The engineer must supply evidence of completing the following for each first type in each licence sub-category:

#### Part-147 organisation

Theory training and examination Practical training and assessment

#### Part-145 organisation

On the Job training (OJT) and assessment<sup>1</sup>

For example, if a basic B1/B2 licence is endorsed with the Airbus A320 type in the B1 category and the engineer wishes to add the A320 in the B2 category, they will have to complete B2 related OJT representative of that aircraft and its systems.

<sup>&</sup>lt;sup>1</sup> OJT is only required for the initial type in <u>each</u> licence category or sub-category:

If the same engineer adds the B1.3 category to the basic licence and wishes to add the first helicopter type, they must complete OJT representative of that first helicopter type. Endorsement of any subsequent types in each of the categories will not require OJT.

# 2. Training Privileges

OJT may only be carried out under the control of a maintenance organisation appropriately approved to maintain the particular type concerned. It is not mandatory for a maintenance organisation to deliver OJT but in either case, the Maintenance Organisation Exposition (MOE) must indicate applicability.

Up to 50% of the required OJT can be undertaken before the aircraft theoretical type training starts.

### 3. Logbook content

At least 50% of the tasks contained in Appendix II to AMC to Part-66, shall be completed where relevant to the particular aircraft type and licence subcategory applied for. Tasks other than those in Appendix II to AMC to Part-66 can be considered as replacements when they are relevant. Tasks should be chosen for their variety, complexity, diversity, frequency, safety and novelty etc. (AMC to section 6 of Appendix III to Part-66 item 4). Tasks should also be achievable and relevant to the aircraft type.

There are no stipulations as to who creates the list, only that it is relevant to the type.

The logbook should contain a statement that a record of the completed tasks or group of tasks have been selected and completed based upon their variety and complexity. It is recognised that some organisations have less exposure to more technically difficult tasks, for example line stations. Consideration should be taken for the repetition of the tasks that are available, to allow for the requisite experience to be gained in conducting safe maintenance. Substantial repetition must be considered by the surveyor and be proportionate and within reason. Where possible the organisation should detail tasks that it expects to perform on a regular basis.

# **NOTE:** It should be remembered that potential OJT participants may not have had any previous experience on the type concerned and that the only contact they have had was during Theory and Practical type training.

Task completion and feedback should be observed and stated in the approved logbook by the direct supervisor, who should oversee the entire task process and confirm completion in the logbook. The experience should be carried out on the specific aircraft type that is required for endorsement on the license.

Logbooks should be created for each licence category i.e. B1, B2 or B1&B2 that they intend to support and detail the required diversity and complexity of tasks to support an application. An alternative to the use of a logbook to demonstrate the record of OJT may be agreed by the CAA on a case-by-case basis.

Tasks need not always be direct reflection of the regulation and may be included depending upon the needs or the organisation and its operations.

Typically examples of this maybe those such as:

De-icing – Not relevant in hot or humid locations or operations Hoists – Relevant to helicopter hoist operations Floats – Relevant to marine or amphibious aircraft / helicopters Survey – Inspections related to survey equipment and modifications

#### **Production Planning**

The maintenance organisation should detail their procedure in Section 3.15 of the UK MOE, how they will plan their tasks around the maintenance of the aircraft and availability of the accepted Supervisors, considering, as a minimum:

- Human Factors
- Workload
- Any critical tasks being performed

#### Supervision & Assessment

The procedure referred to in Section 3.15 shall detail the complete process for the supervision of any OJT task and should also detail what to do if the applicant does not have a positive assessment i.e., fails the OJT assessment during the period of OJT. The organisation may wish to include the following:

- Additional Training
- 2<sup>nd</sup> Re-assessment (only if the failure was marginal)
- Further experience to be gained

All of the above should be considered and a rationale provided within the supporting procedure.

#### Safe Release of the Aircraft upon completion of the OJT

The organisation shall also detail their procedure ensuring that any aircraft being released from maintenance having had applicants undertaking OJT meets the Part 145 requirements for issue of a CRS, taking into account the following:

- Performance of any critical task (i.e a task that meets the requirements of 145.A.48)
- Human Factors (Supervisors may be distracted from the task if they are supervising OJT)
- Any other factors such as lighting, facilities, shift handover etc.

# 4. Simulation

The use of simulators in OJT is not allowed, as the overall objective is to gain actual experience of conducting safe maintenance on live aircraft (AMC to section 6 of Appendix III to Part-66 item 3).

# 5. OJT Assessment

A final assessment of the completed OJT documentation is carried out to confirm the trainee has completed the required diversity and quantity of tasks (AMC to section 6 of Appendix III to Part-66 item 8).

NOTE: This is not an assessment of the student directly

The final assessment should detail a statement/confirmation that the completion of the required diversity and quantity of OJT has been completed and that the supervisor reports and feedback (whether included in the logbook or retained separately) have been completed. (See Appendix C of this document)

# 6. Approving the conduct of the OJT by the UK CAA

In order to hold the OJT privilege, the organisation must carry out the following:

- Provide a copy of their supporting internal quality audit.
- Update their MOE (and ensure it complies with <u>CAP 2375</u>) with a thorough procedure either defined in Section 3.15 or referred out to a separate local procedure. Then provide the latest version to the CAA for approval.
- Define a list of Approved Supervisors/Assessors, this list may refer to the list of Certifying staff in Section 1.6 or the staff responsible be named in Section 3.15. either way the org should nominate the supervisors/assessors. Also copies of their current authorisation should be included.
- Develop an OJT logbook for the type(s) of aircraft that they wish to conduct the OJT on. The organisation must have the type on their scope of approval and the logbook should be clearly identified as to whether it is for B1 or B2 staff. (A sample list of OJT tasks can be found in Appendix II to Part 66).
- The OJT logbook should then be retained indefinitely for review by the CAA or other such agencies for review.

To facilitate the approval of the OJT process by the CAA, the organisation shall produce the relevant worksheets or logbook, scheduling the list of tasks to be performed, for each type and a compliance report demonstrating how the OJT meets the requirements of Part-66. This could be as simple as a short narrative referencing the MOE procedures, Supervisors, Assessors, the 50% requirements and the regulation complied with. Alternatively, organisations may wish to use a format similar to the <u>CAP 741</u> but this should be populated with the tasks to be accomplished and agreed with the CAA.

OJT shall cover a cross section of tasks acceptable to the CAA. The OJT tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input

required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Each task shall be signed off by the student and countersigned by a designated supervisor. The tasks listed shall refer to an actual job card/work sheet, etc.

UK based organisations holding an EASA Third Country approval may claim experience on EU registered aircraft if the following conditions apply:

- 1. Scope between EU and UK approval remains aligned
- 2. The aircraft should be referred to using Manufactures Serial Number (MSN) rather than their UK/EU registration
- 3. The Aircraft is a **civil operated aircraft**, as defined in Part 66.A.30(a) & (e) and 66.A.45 and Appendix III to Part 66 Section 6.

(Any application requesting the acceptance of any military based platform must be addressed separately and, on a case-by-case basis).

Organisations with their Principal Place of business outside of the UK, that hold a UK approval may claim experience on EU registered aircraft towards a UK Part 66 licence if the following conditions apply:

- 1. Scope between EU and UK approval remains aligned
- 2. The Supervisors/assessors have been qualified as per 145.A.30(j)(1) and Appendix IV (see <u>CAP 2375</u> for guidance)
- 3. The aircraft should be referred to using Manufactures Serial Number (MSN) rather than their UK/EU registration
- 4. Aircraft is a civil operated aircraft, as defined in Part 66.A.30(a) & (e) and 66.A.45 and Appendix III to Part 66 Section 6.

The final assessment of the completed OJT is mandatory and shall be performed by an appropriately qualified, designated assessor.

Approval will be indicated through the inclusion and acceptance of procedures in the organisation's MOE Section 3.15 or referenced in a Procedures manual (AMC to section 6 of Appendix III to Part-66 item 9) and shall include processes such as:

- The assessment of the completed OJT
- The certification technique for the completed OJT, e.g., issuing a Certificate of Completion
- The qualification/training of the Supervisors and Assessors.

These processes and the records they produce will be audited during the organisation's oversight period by the Part-145 assigned surveyor.

It shall have been started and completed within the <u>**3 years**</u> preceding the application for a type rating endorsement.

# 7. Qualifications

Supervisors play the biggest role in OJT and they should therefore:

- Have the relevant certifying privileges for the task.
- Be competent for the selected tasks
- Be safety orientated.
- Be capable to coach, mentor and when necessary, determine the need for extra or additional training
- Be designated by the approved maintenance organisation to carry out supervision

Assessors should have training and experience on the assessment process being undertaken and be authorised to do so by the organisation (AMC to section 6 of Appendix III to Part-66 item 8).

The assessment could conceivably be carried out by an administrator trained in the documentation's usage and completion parameters, e.g. the required number of tasks in the logbook being completed, the correct signatures in the correct boxes etc. This would obviously vary from one organisation to another.

The organisation should demonstrate a process that explains the qualification and authorisation of these personnel and how they are managed.

### 8. What happens next?

The maintenance organisation should present the student with evidence of OJT completion that can be submitted to the CAA, with the Certificates of Recognition for Theory and Practical training, for their licence to be endorsed with the type rating.

In order to facilitate the verification of such evidence by the CAA, demonstration of the OJT shall consist of:

- Detailed worksheets/logbook, and
- A compliance report demonstrating how the OJT meets the requirements of Part 66.

The regulation does not state the nature of the compliance report, however the sample demonstrated in Appendix C gives an example of acceptable means:

- Certificate of Completion (See sample in Appendix C)
- A letter/statement of confirmation of completion
- The completed approved OJT logbook

For audit purposes, they should contain a reference to the Part-66 requirements the OJT complies with and be cross referenced to the student's original OJT logbook.

Records of the completed OJT logbooks should be retained by the Part-145 organisation to facilitate subsequent audits by the assigned Part-145 surveyor.

# 9. Contacts

Engineer Licensing Dept. - <u>ELDWEB@caa.co.uk</u>

### **APPENDIX A – ABBREVIATIONS**

Department of Transport
UK CAA
On the Job Training
Acceptable Means of Compliance
Maintenance Organisation Exposition
Certificate of Release to Service

### **APPENDIX B - AIRCRAFT RATING REQUIREMENTS**

Aircraft groups	B1/B3 licence	B2 licence	C licence
Group 1	(For B1)	Individual TYPE RATING	Individual TYPE RATING
Complex motor-powered	Individual TYPE RATING	Type training:	Type training:
aircraft	Type training:	Theory + examination	Theory + examination
Multiple engine	Theory + examination	Practical + assessment	-
helicopters	Practical + assessment	PLUS	
Aeroplanes certified	PLUS	OJT (for first aircraft in	
above FL290	OJT (for first aircraft in licence	licence category)	
Aircraft equipped with fly-	subcategory	<u> </u>	
by-wire			
Other aircraft when			
defined by the Agency			
Group 2	(For B1.1, B1.3, B1.4)	Individual TYPE RATING	Individual TYPE RATING
Subgroups:	Individual TYPE RATING	(type training + OJT) or	Type training or type
2a: single turboprop	(type training + OJT) or (type	(type examination +	examination
aeroplanes	examination + practical	practical experience)	Full SUBGROUP RATING
2b: single turbine engine	experience)	Full SUBGROUP RATING	Type training or type
helicopters	Full SUBGROUP RATING	Based on demonstration	examination on at least 3
2c: single piston-engine	(type training + OJT) or (type	of practical experience	aircraft representative of
helicopters	examination + practical	Manufacturer SUBGROUP	that subgroup
(except those classified in	experience) on at least 3 aircraft	RATING	Manufacturer SUBGROUP
Group 1)	representative of that subgroup	Based on demonstration	RATING
	Manufacturer SUBGROUP	of practical experience	Type training or type
	RATING		examination on at least 2
	(type rating + OJT) or (type		aircraft representative of
	examination + practical		that manufacturer subgroup
	experience) on at least 2 aircraft		
	representative of that		
	manufacturer subgroup		
Group 3	(For B1.2)	Individual TYPE RATING	Individual TYPE RATING
Piston-engine aeroplanes	Individual TYPE RATING	(type training + OJT or	Type training or type
(except those classified in	(type training + OJT) or (type	(type examination +	examination
Group 1)	examination + practical	practical experience)	Full GROUP 3 RATING
0.000 -)	experience)	Full GROUP 3 RATING	Based on demonstration of
	Full GROUP 3 RATING	Based on demonstration	practical experience
	Based on demonstration of	of practical experience	
	practical experience		
	Limitations:		
	Pressurised aeroplanes		
	Metal aeroplanes		
	Composite aeroplanes		
	Metal tubing & fabric aeroplanes		
Piston-engine non-	(For B3)	Not applicable	Not applicable
pressurised aeroplanes of	FULL RATING		
2,000 kg MTOM and	Based on demonstration of		
below	practical experience		
	Limitations:		
	Metal aeroplanes		
	Composite aeroplanes		
	Wooden aeroplanes		
	Metal tubing & fabric aeroplanes		
	metal tubing & labilit del upidiles		

### APPENDIX C - SAMPLE CERTIFICATE OF COMPLETION / COMPLIANCE REPORT

### **CERTIFICATE OF COMPLETION (Compliance Report)**

Reference: UK.145.\*\*\*\*

The Certificate is issued to:

Date of Birth:

Place of Birth:

#### \*NAME AND ADDRESS OF ORG\*

Reference: UK.145.\*\*\*\*

A maintenance organisation approved to provide On the Job Training (OJT) in accordance with Annex II (Part-145) of UK Regulation (EU) No. 1321/2014

This certificate conforms that the above-named person has completed the OJT course of training stated below and complies with the following.

#### (TYPE RATING AS PER PART 66 List)

Requirement	Confirmed
OJT completed at an approved Part 145 Organisation	YES / NO
Completed OJT covers a representative cross section of tasks from Part- 66, Appendix II	YES / NO
Minimum 50% of applicable tasks to the category completed and are representative in nature	YES / NO
No more that 50% of the OJT completed before the completion of the Part 147 Type training	YES / NO
OJT Logbook assessed including Supervisors comments	YES / NO

Compliance Statement:

The competence of the delegate has been assessed together with the contents of this logbook, which contains the sufficient diversity and quantity of tasks to meet the requirements of Part-66 for the first type rating as per AMC to Section 6 of Appendix III to Part 66, (item 8).

Signed:

Quality Manager Date: