



CAP1530 Guidance Material

Licensed Aircraft Engineers: On the Job Training (OJT) for first type ratings in any Category or sub Category

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1. Definitions

GM definitions:

OJT: On the Job Training within a Part 145 environment.

Practical Training: Practical Instruction delivered in Part 147 approved course.

Simulators: Devices that mimic real aircraft operations.

Certificate of Recognition: Part-147 document used to demonstrate successful completion of approved Theory and Practical training only.

GM Appendix 1 definitions:

Type training: Combination of Theoretical and Practical training.

Practical experience: Logbook evidence of type interactions such as CAP741.

Type examination: Written examinations consisting of multi choice questions. Oral examination for types that are not supported by dedicated Part-147 Type training and carried out by the competent authority.

2. Introduction

OJT should not be confused with Practical Training which is conducted by Part-147 organisations. (Guidance for this is covered under CAP1529 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 log book 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 1 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 *

* OJT is only required for the initial type in each licence category or sub-category:

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, he/she will have to complete B2 related OJT representative of that aircraft and its systems.

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

3. 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.

4. 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 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 log book 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

Production Planning

The maintenance organisation should detail their procedure in Section 3.15 of the 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
- 2nd 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 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.

5. Simulation

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

6. 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 log book or retained separately) have been completed. (See Appendix II of this document)

7. Approving the conduct of OJT by the competent authority

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 EASA UG.CAO.00024) 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 competent authority for approval.
- Define a list of Approved Supervisors/Assessors, this list may refer back 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 log book 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 III to Part 66).
- The OJT logbook should then be retained indefinitely for review by the competent authority or other such agencies for review.

To facilitate the approval of the OJT process by the competent authority, 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 CAP 741 but this should be populated with the tasks to be accomplished and agreed with the competent authority.

OJT shall cover a cross section of tasks acceptable to the competent authority. 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.

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

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 3 years preceding the application for a type rating endorsement.

8. 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 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.

9. What happens next

The maintenance organisation should present the student with evidence of OJT completion that can be submitted to the competent authority, 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 Authority, 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 2 give an example of acceptable means:

- Certificate of Completion – (See sample in Appendix 2)
- 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 Part-145 surveyor.

10. Contacts

Engineer Licensing Dept.

ELDWEB@caa.co.uk

Appendix 1: Aircraft rating requirements

Aircraft groups	B1/B3 licence	B2 licence	C licence
Group 1 <ul style="list-style-type: none"> ▪ Complex motor-powered aircraft ▪ Multiple engine helicopters ▪ Aeroplanes certified above FL290 ▪ Aircraft equipped with fly-by-wire ▪ Other aircraft when defined by the Agency 	(For B1) Individual TYPE RATING Type training: <ul style="list-style-type: none"> ▪ Theory + examination ▪ Practical + assessment PLUS <ul style="list-style-type: none"> ▪ OJT (for first aircraft in licence subcategory) 	Individual TYPE RATING Type training: <ul style="list-style-type: none"> ▪ Theory + examination ▪ Practical + assessment PLUS OJT (for first aircraft in licence category)	Individual TYPE RATING Type training: <ul style="list-style-type: none"> ▪ Theory + examination
Group 2 Subgroups: <ul style="list-style-type: none"> ▪ 2a: single turboprop aeroplanes ▪ 2b: single turbine engine helicopters ▪ 2c: single piston-engine helicopters (except those classified in Group 1) 	(For B1.1, B1.3, B1.4) Individual TYPE RATING (type training + OJT) or (type examination + practical experience) Full SUBGROUP RATING (type training + OJT) or (type examination + practical experience) on at least 3 aircraft representative of that subgroup Manufacturer SUBGROUP RATING (type rating + OJT) or (type examination + practical experience) on at least 2 aircraft representative of that manufacturer subgroup	Individual TYPE RATING (type training + OJT) or (type examination + practical experience) Full SUBGROUP RATING Based on demonstration of practical experience Manufacturer SUBGROUP RATING Based on demonstration of practical experience	Individual TYPE RATING Type training or type examination Full SUBGROUP RATING Type training or type examination on at least 3 aircraft representative of that subgroup Manufacturer SUBGROUP RATING Type training or type examination on at least 2 aircraft representative of that manufacturer subgroup
Group 3 <ul style="list-style-type: none"> ▪ Piston-engine aeroplanes (except those classified in Group 1) 	(For B1.2) Individual TYPE RATING (type training + OJT) or (type examination + practical experience) Full GROUP 3 RATING Based on demonstration of practical experience Limitations: <ul style="list-style-type: none"> ▪ Pressurised aeroplanes ▪ Metal aeroplanes ▪ Composite aeroplanes ▪ Metal tubing & fabric aeroplanes 	Individual TYPE RATING (type training + OJT) or (type examination + practical experience) Full GROUP 3 RATING Based on demonstration of practical experience	Individual TYPE RATING Type training or type examination Full GROUP 3 RATING Based on demonstration of practical experience
Piston-engine non-pressurised aeroplanes of 2,000 kg MTOM and below	(For B3) FULL RATING Based on demonstration of practical experience Limitations: <ul style="list-style-type: none"> ▪ Metal aeroplanes ▪ Composite aeroplanes ▪ Wooden aeroplanes ▪ Metal tubing & fabric aeroplanes 	Not applicable	Not applicable

NOTE: 'Individual TYPE RATING (type training + OJT) or (type examination + practical experience)' refers to an oral examination and experience records.

Appendix 2: 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 III (Part-145) of regulation (EC) 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 Appendix 2, Part-66	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: