



Sum-up of EASA PART 66 workshop 16 March 2010

EAMTC - Toulouse
23/24 March 2010

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- **On 16 March 2010 was held a Part 66 workshop at Cologne, aiming at presenting:**
 1. **Opinion 05/2008 (Time limit for demonstrating compliance with basic knowledge and experience)**
 2. **Opinion 04/2009 (B3 license and "L" license)**
 3. **Opinion 05/2009 (B1/B2 privileges, type rating training, licensing system)**
- **These three opinions have been merged and a full consolidated Part 66 version has been sent to Brussels:**
 - ✦ **EASA committee on 29 April 2010**
 - ✦ **Includes EC n°127/2010.**
 - ✦ **Likely to be approved end of 2010**
 - ✦ **All AMCs are likely to be consolidated.**



Rulemaking programme

Refer to:

- http://www.easa.eu.int/ws_prod/g/rg_opinions_main.php
 - where the three Opinions can be consulted
- <http://www.easa.eu.int/events>
 - where the presentations can be consulted



Opinion 05/2008

Time limit for demonstrating compliance with basic knowledge and experience



Time limits for knowledge and experience

Basic knowledge and experience for getting the AML

- ✦ All basic knowledge (new 66.A.25) must be gained within the 10 years prior to the application for a licence.
 - ➔ **Certificate of recognition modified: date of passed module is recorded.**
 - ➔ **Except for common modules to more than one Part-66 Aircraft Maintenance Licence (AML) (sub) category already passed.**

- ✦ Special mechanism to extend the 10 years validity of the modules and the examination credits provided that no evolution of the basic knowledge occurs during the last 10 years.
 - ➔ **66.B.405 (credit report) was improved and new 66.B.410 (credit validity): a credit report is valid ten years; after it has to be renewed.**



Time limits for knowledge and experience

Basic knowledge and basic experience (before getting an AML)

All **basic experience** (new 66.A.30) must be gained within the 10 years prior to the application for a licence.

→ **In addition to 66.A.30 (d): at least one year of experience must be recent. AMC 66.A.30 (f) further details (50% in the last 12 months).**

➤ **Examination** after a failed module

★ Shall not be retaken in the next 90 days following the date of the failed module examination

→ May be reduced to 30 days in the case of a Part-147 approved maintenance which conducted the training and only when additional training is provided in the area where the candidate failed.

★ **Maximum: 3 consecutive attempts**

→ **1 year waiting period after 3rd attempt.**



Time limits for knowledge and experience

Type Rating Training

- Theoretical (+ examination) + practical training (+ assessment) must have been started and finished within 3 years prior to application for licence endorsement.
 - ➔ **Also includes OJT when necessary**
 - ➔ **According to Opinion 05/2009, OJT becomes necessary only in the case of the first TR in the (sub)-category.**



Time limits for knowledge and experience

Type examination (when no training is required)

- ✦ Examination + practical experience must be completed within 3 years prior to application for licence endorsement.

- ✦ Maximum: 3 consecutive attempts with:
 - ➔ 30 days waiting period after 1st attempt.
 - ➔ 60 days waiting period after 2nd attempt.
 - ➔ 1 year waiting period after 3rd attempt.



Time limits for knowledge and experience

Grandfather provisions

- ★ Basic examinations passed, basic examination credits granted and basic experience gained prior to the entry into force of this amendment can be used for licence application until 10 years after the date of entry into force.
- ★ Type training completed prior to the entry into force of this amendment can be used for licence application until 3 years after the date of entry into force.
- ★ Type examination and practical experience completed prior to the entry into force of this amendment can be used for licence application until 3 years after the date of entry into force.



Opinion 04/2009

B3 license and “L” license



B3 licence

Category B3 is applicable to:

“Piston-engine non-pressurized aeroplanes of 2000 Kg MTOM and below”

- Will be the rating to be endorsed on the AML after demonstration of appropriate practical experience
- No rotorcraft in B3 licence
- B1.2 includes B3
- B1.2 and B3 do not cover sailplanes, balloons and airships.
- Sailplanes /balloons-airships are covered by L-licence



B3 licence

➤ “B3” licence:

Basic Knowledge (66.A.25):

- ★ Appendix I to part-66 has been extended to include a column “B3” showing the required levels of basic knowledge
- ★ Examination as per revised Appendix II to Part-66
- ★ Duration for approved Part-147 basic courses (Appendix I to Part-147): 1000h

Practical Experience (66.A.30): between 1 and 3 years (the same as for B1.2).



B3 licence: limitations

If no appropriate experience can be shown, the following limitations will be included in the B3 licence:

- Wooden structure aeroplanes,
- Aeroplanes with metal tubing structure covered with fabric,
- Metal structure aeroplanes,
- Composite structure aeroplanes.



L licence

Category L licence is applicable to:

- Aeroplanes less than 1000 Kg MTOM, sailplanes and powered sailplanes
 - ✦ No rotorcraft in the L licence.
- Balloons
- Hot-air airships
- A manned gas airship meeting a criteria reflecting simplicity in its design.

- Limited-L and Full-L
 - ✦ These levels will likely be changed before adoption of the rule by the Commission to Basic-L and Advanced-L to avoid any possible misunderstanding with the limitations coming from the conversion of national qualifications.



L licence

Limited-L licence:

- **Wooden airframe**
(no powerplant)
- **Composite airframe**
(no powerplant)
- **Metal airframe** (no powerplant)
- **Powerplant** (can be endorsed alone)
- **Hot air Balloons**
- **Gas Balloons**
- **Hot air Airships**
- **Gas Airships**

Full-L licence:

- **Wooden aircraft** (with powerplant)
- **Composite aircraft** (with powerplant)
- **Metal aircraft** (with powerplant)
- **Wooden sailplanes** (no powerplant)
- **Composite sailplanes** (no powerplant)
- **Metal sailplanes** (no powerplant)
- **Hot air Balloons**
- **Gas Balloons**
- **Hot air Airships**
- **Gas Airships**
- **Radio-Comm/Transponder**



Privileges of the L licence (66.A.20(a)5)

Limited-L:

- “Powerplant rating”: Issue CRS for maintenance on powerplant.
- For other ratings: Issue CRS following maintenance on aircraft structure, mechanical & electrical systems and maintenance on avionics systems not requiring troubleshooting and requiring simple tests.

Does not allow the release of inspections with interval higher than 100 hours/annual or after major repairs and major modifications.

Full-L (automatically includes Limited-L):

- Issue CRS following maintenance on aircraft structure, mechanical & electrical systems and maintenance on avionics systems not requiring troubleshooting and requiring simple tests.



Privileges of the L licence

- The L-licence can not be extended into a B3 licence (see Appendix IV to part-66).
 - ★ If the holder of an L-licence wishes to obtain a B3 licence:
 - ➔ Full qualification requirements for the B3 licence must be met.
 - ➔ This does not prevent the competent authority from granting examination credits for relevant subjects.



Training/examination: L licence

Training and examination required for rating endorsement:

- Training in accordance with Appendix VII. For Limited-L, training may be replaced by 1 year (instead of the standard 6 months) of practical maintenance experience in carrying out a representative cross-section of maintenance activities
- Training courses may be conducted by
 - ✦ 147 organisations,
 - ✦ as approved by the competent authority.
- Examination in accordance with Appendix VIII.



Opinion 04/2009

How to get an L licence from a B1.2 or a B3?

- The holder of a B1.2 or a B3 licence is considered to meet the basic knowledge and experience requirements to get a Full-L licence within the rating "wooden aircraft, composite aircraft, metal aircraft".

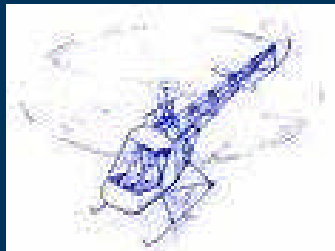
Transition period and grandfathering

- For sailplanes, powered sailplanes and balloons, and for those airships covered by the L licence in accordance with 66.A.1(d), it has been proposed to maintain the possibility of using the corresponding Member State regulation for certifying staff (as stated in 66.A.100) in addition to the L licence **until 3 years** after entry into force of this amendment. (Article 7, §8, 2042/2003)
 - ✦ This means that during those 3 years, certifying staff can still use the national licence, authorisation or equivalent document/system.
 - ✦ After those 3 years they will need an L licence obtained either as a new licence or through conversion of the national qualification
 - ✦ Conversion of national qualifications is possible.

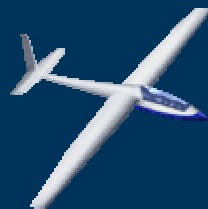


Summary of licences (other than B2 and C)

Licences for sailplanes, balloons, airships, piston-engine aeroplanes and piston-engine helicopters:



Helicopters
B1.4



Sailplanes
L or
National
(during 3
years)

Piston-engine
aeroplanes
B1.2

Non-press'd
< 2 T : B3

< 1T : L



Balloons & Airships
L or
National (during 3
years)

NOTE: some airships
and avionic work for
sailplanes and balloons
and airships will remain
under national licence
(no L licence)



Use of licenced personnel

- A Part-145 organisation may employ at line:
 - ✦ B1, B2, B3 and/or L certifying staff, as appropriate.

- A Part-145 organisation, for aircraft other than large aircraft, may employ at base:
 - ✦ B1, B2, B3 and/or L certifying staff, as appropriate, or
 - ✦ C certifying staff assisted by B1, B2, B3 and/or L support staff, as appropriate.

- A Subpart-F organisation may employ:
 - ✦ B1, B2, B3 and/or L certifying staff, as appropriate.

- B1, B2, B3 and L licence holders may work as independent certifying staff (i.a.w M.A.801(b)2).



Opinion 05/2009 (NPA 2007-07)

- ★ **66.006 - Privileges of B1 and B2 Aircraft maintenance licence**
- ★ **66.009- Type and group ratings**
- ★ **66.011 - Type training**



Task 66.006: Privileges of B1 and B2 aircraft maintenance licence



Definitions

- Better definition of “electrical system” and “avionic system”.
 - ★ the aircraft electrical power supply source, plus the distribution system to the different components and relevant connectors. Lighting systems are also included.
- Clarification regarding the avionic tasks that can be performed by a B1.
 - ★ an aircraft system that transfers, processes, displays or stores analogue or digital data using data lines, wireless or other data transmission medium, and includes the system’s components and connectors.
 - ➔ **Some example are the following: Autoflight, COM & NAV, Instruments (*), In Flight Entertainment Systems, Integrated Modular Avionics, Cabin Systems, On-board Maintenance Systems, Information Systems, Fly by Wire Systems and Fibre Optic Control Systems.**
- Clarification of the term “simple test”.
 - ★ Revised AMC 66.A.20(a) and GM 66.A.20(a)



Expansion of category B2 privileges (for mechanical & powerplant systems)

- Revised 66.A.20(a)3: Privileges similar to category A with limitations
 - ✦ Category B2 privileges also include certification of electrical and avionic parts within powerplant and mechanical systems, requiring simple tests to prove their serviceability
 - ➔ The approved maintenance organisation is responsible for assessing the competence of certifying staff before issuing the appropriate authorisation.



Expansion of category B2 privileges (Privileges similar to category A with limitations)

- ✦ It means that the privileges of the B2 include privileges similar to the category A (certification of minor scheduled line maintenance and simple defect rectification), with the following conditions:
 - ➔ Limited to ratings already endorsed on the B2 licence (66.A.20(a)3(ii)).
 - ➔ Performance of task training and examination plus six months of documented practical experience on the tasks that will be authorised. All must be performed (training and experience) at the Part-145 organisation that will issue the authorisation



Revision of Appendix I, II and III

- New technologies included for cat A, B1 and B2 (Modules 5, 11A, 12 and 13 of Appendix I, plus Appendix III):
 - ✦ Integrated Modular Avionics (ATA42)
 - ✦ Cabin Systems (ATA44)
 - ✦ Information Systems (ATA46)
- New subjects for cat B2 to cover the new privileges (Modules 13 and 14 of Appendix I, plus Appendix III)
- Revised Appendix II to adapt the number of questions to the new syllabus and to make them multiple of 4 (75% pass mark).
- Revised the table of "category C component ratings" in AMC 145.A.20 to include the following:
 - ✦ ATA42, 44, 50 and 92 in RATING C6 "Equipment".
 - ✦ ATA46 in RATING C3 "Communication & Navigation".
 - ✦ ATA85 and 93 in RATING C12 "Hydraulic".



Transition provisions for entry into force and application.

- This regulation amendment shall enter into force 90 days after its publication in the *Official Journal of the European Union*.
- Amendments introduced in Appendix I and II to Part-66 shall apply 15 months after the date of entry into force (18 months after publication), except as follows:
 - ✦ Applications for Part-147 approval of basic training courses, submitted to the competent authority after the date of entry into force of this Regulation amendment, shall be subject to the new requirements of Appendix I and Appendix II of Part-66.

NOTE: Entry into force and transition provisions may change before adoption in order to be consistent with the other opinions.



Opinion 05/2009

**Task 66.009: Type and Group
Ratings**



Redefinition of aircraft groups in Appendix I to AMC to Part-66 (66.A.42)

- In order to simplify the current groups defined in Appendix I to AMC to Part-66, the following groups have been defined:
 - ✦ **GROUP 1:** All complex motor-powered aircraft and those non complex motor-powered aircraft requiring an individual type rating.
NOTE: This definition will likely be changed before adoption of the rule in order to clear state the criteria (see previous slide)
 - ✦ **GROUP 2:** Aircraft other than Group 1, in following sub-groups:
 - ➔ **Subgroup 2a:** single turbo-propeller aeroplanes.
 - ➔ **Sub-group 2b:** single turbine helicopters.
 - ➔ **Sub-group 2c:** single piston helicopters.
 - ✦ **GROUP 3:** Piston engine aeroplanes (other than Group 1)



Limitations on group/sub-group ratings (66.A.45(i))

If no appropriate experience can be shown, the following limitations will be included in the B1.2 licence for group 3 rating (**Piston engine aeroplanes**):

- Pressurised aeroplanes,
- Wooden structure aeroplanes,
- Aeroplanes with metal tubing structure covered with fabric,
- Metal structure aeroplanes,
- Composite structure aeroplanes.

Limitations can be removed by:

- ✦ **Demonstration of appropriate experience** (AMC will be provided to explain that this means a variety of tasks related to the limitations supervised by authorised certifying staff, and properly documented), **or**
- ✦ **after a satisfactory practical assessment performed by the competent authority.**



Opinion 05/2009

Task 66.011: Type rating training (Appendix III to part 66)



Opinion 05/2009

TRT – review of Appendix III

- **The Type Rating Training (TRT) is always composed of and limited to:**
 - ✦ Theoretical portion + examination, and
 - ✦ Practical portion + assessment by designated assessors (except for category C).
- **The TRT shall be conducted by:**
 - ✦ A Part 147 organisation or,
 - ✦ As directly approved by the Competent Authority
- **The OJT will only be mandatory and additional in the case of the first TRT in an AML (sub) category in addition to the practical training:**
 - ➔ so that the mechanic can gain experience in addition to the practical portion of the TRT in a real maintenance environment;
 - ➔ Shall be conducted by an approved maintenance organisation



- Level 1, level 2 and level 3 have been reviewed
- Theoretical portion:
 - The current table has been reviewed in coordination with the new B1/B2 privileges.
 - Introduction of the concept of duration justified by a Training Need Analysis (TNA).
 - The duration must be above the minimum duration as proposed + transition period + flexibility
- ★ How does “the duration” work (theoretical portion of the TRT)?
 - ➔ First perform the Training Needs Analysis and determine the duration;
 - ➔ Then verify that the result is not below the minimum duration; if yes the justifications must be accepted by the Competent Authority.



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Opinion 05/2009

TRT – review of Appendix III

- **Theoretical portion:**
 - **The number of tuitions per day (24h) shall not exceed 6 hours; in exceptional cases, the competent authority may allow deviation from this standard when properly justified.**
 - **Attendance: Minimum participation time is at least 90 percent of the tuition hours for the theoretical training course.**



Aircraft type training standard

Practical elements

Practical portion of the TRT: a table is proposed and :

- ★ **Shall cover the representative tasks of the aircraft and systems;**
- ★ **Is aligned with the table of the theoretical elements;**
- ★ **Is composed of the following tasks:**
 - LOC: Location
 - FOT: Functional / Operational Test
 - SGH: Service and Ground Handling
 - R/I: Removal / Installation
 - MEL: Minimum Equipment List
 - TS: Trouble Shooting
- ★ **Has been alleviated (between the CRD and the Opinion – all reactions received have been considered)**
 - Some tasks were removed
 - Statement: " at least 50% of the crossed items in the table, which are relevant to the particular aircraft type, shall be completed

Rq: Duration of the practical training: the AMC will recommend the minimum duration to be 2 weeks for aeroplanes above 30T.



Type training examination standard

Examination (theoretical portion)

- ★ **The total time is based on the total number of question**
- ★ **The time for answering is based upon a nominal average of 90 seconds per question.**
- ★ **The number of questions**
 - **must be at least 1 question per chapter;**
 - **Consistent with the effective training hours spent teaching at that chapter and at that level.**
 - **Consistent with the learning objectives that derive from the TNA.**
- ★ **The pass mark is 75%:**
 - **The number of questions shall be a multiple of 4.**



On the Job Training

- **The OJT will only be mandatory and additional in the case of the first TRT in an AML (sub) category in addition to the practical training:**
 - ➔ Only set up by an approved **maintenance organisation**;
 - ➔ leads to a final assessment by a designated **assessor**
 - ➔ but daily tasks IAW Appendix II to AMCs Part 66 can be under the oversight of designated supervisors.
 - ➔ The data shall be recorded on the OJT worksheets/ logbook
 - ➔ The OJT can only be performed on the relevant aircraft type and not on any aircraft type relevant to the AML
 - ➔ The OJT shall be accepted by the competent authority in charge of the TR endorsement on the AML



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IMPACT and TRANSITION PERIOD of 66-011 (Opinion 05/2009)

➤ for Part-147 Maintenance Training Organisations:

- ★ Review of all existing courses: develop and amend course material according the new tables (theoretical and practical – review of the content and level)
- ★ Production of the TNA (with the learning objectives) for all courses except for existing courses below the minimum duration
- ★ Review of examination questions IAW the learning objectives.
- ★ Amendment of MTOE.
- ★ Production of the TNA with the learning objectives for new courses



IMPACT and TRANSITION PERIOD

➤ Transition provisions

- ★ To make it simple, 18 month after the Opinion is approved by the EU commission.
- ★ Approval is expected end of 2010.
 - ➔ All courses after this date should be amended IAW the regulatory changes.
 - ➔ During the transition phase, new courses can be developed in accordance with the current rules and all certificate of training shall be recognized.



Conclusion

The three PART 66 Opinions

- Will be debated at Brussels on 29 April 2009;
- Are likely to be ratified end of 2010
- Will drastically impact the business of the maintenance training
- Will be accompanied
 - ★ by a transition period for the implementation (18 months – to be discussed)
 - ★ By some grandfathering provisions
- Will give birth to a consolidated Part 66

- I will update you at next EAMTC meeting.



**Should you have any question on this
presentation, contact**

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