



Opinion 04 / 2009: Aircraft Maintenance Licences for non-complex aircraft

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Current requirements

- According to Part-66, the current licensing system includes the following categories of licences for aircraft:
 - ✧ A1, A2, A3, A4
 - ✧ B1.1, B1.2, B1.3, B1.4
 - ✧ B2
 - ✧ C
 - ✧ National system for sailplanes and balloons

- The qualification requirements for Licences B1.2 “Piston engine aeroplanes” and B1.4 “Piston engine helicopters” are the same for all sizes and complexity of aircraft.



Feedback received by EASA

- Industry and NAAs had requested the creation of an aircraft maintenance licence specific for light aircraft, with reduced qualification requirements that are better adapted to the reduced complexity of these aircraft.
- In their view, the current system has the following shortcomings:
 - ✦ There are not enough Part-66 licence holders to cover the needs of all the General Aviation industry.
 - ✦ The current qualification requirements are too stringent for the reduced complexity of light aircraft, imposing also a non-reasonable economical impact.
 - ✦ Current B1.2 and B1.4 licence holders may prefer to develop their career on larger piston engine aircraft rather than in light aircraft.



Task 66.022

- NPA 2008-03 was published on March 2008.
- The CRD was published on 17 September 2009
- Opinion 04/2009 was published on 15 December 2009.
- Possible adoption by the Commission before the end of 2010.
- AMC and GM are under preparation and will be published by Decision after this date.



➤ The B3 licence



Applicability of the B3 licence (66.A.1(c))

Category B3 is only applicable to:

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

- 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

NOTE: B1.2 and B3 licence holders already meet the basic knowledge and experience requirements for the Full-L licence for the ratings “wooden”, “composite” and “metal aircraft” (see 66.A.25(d) and 66.A.30(a)8). They can be issued such a licence.



Privileges of the B3 licence (66.A.20(a)4)

Issue CRS following maintenance, including:

- Aircraft structure
- Powerplant
- Mechanical and electrical systems
- Work on avionic systems requiring simple tests and not requiring troubleshooting.

Tasks included in Module 7.7 (electrical cables and connectors) are considered electrical tasks and can be released by the B3 licence holder (will be introduced in GM 66.A.20(a))



Privileges of the B3 licence (GM66.A.20(a)4)

The category B3 licence does not include:

- Any subcategory A.
- The category L. This does not prevent the B3 licence holder from releasing piston-engine aeroplanes below 1000 Kg MTOM (the limit will likely be changed before adoption by Commission to refer to ELA1 aircraft just in case the weight limit changes during task MDM.032)

NOTE: B1.2 and B3 licence holders already meet the basic knowledge and experience requirements for the Full-L licence for the ratings “wooden”, “composite” and “metal aircraft” (see 66.A.25(d) and 66.A.30(a)8). They can be issued such a licence.



Basic knowledge and experience requirements of the 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). Defined in 66.A.30(a)1



Ratings of the B3 licence

66.A.45(i): In order to exercise certification privileges the B3 licence must be endorsed with the rating:

« Piston-engine non-pressurized aeroplanes of 2000 Kg MTOM and below »

This rating is endorsed based on demonstration of appropriate practical experience.

AMC will clarify that this means:

- 50% of the tasks from Appendix II to AMC applicable to this rating (could cover one or several aircraft types)
- Under the supervision of authorised certifying staff.



Limitations on the rating of the B3 licence (66.A.45(i))

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.



Limitations of the B3 licence (66.A.45(i))

These limitations:

- Mean « exclusions » from the certification privileges.
- Affect the whole aircraft. Nothing can be released on the aircraft except pilot-owner maintenance tasks.
- 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.**



➤ The L licence



Applicability of the L licence (66.A.1(d))

Category L licence is applicable to:

- Aeroplanes less than 1000 Kg MTOM, sailplanes and powered sailplanes
- Balloons
- Hot-air airships
- A manned gas airship meeting a criteria reflecting simplicity in its design.

NOTE: the 1000 Kg limit will likely be changed before adoption by Commission to refer to ELA1 aircraft just in case the weight limit changes during task MDM.032.

No rotorcraft in the L licence.



Levels of the L licence (66.A.1(d))

- Limited-L
- Full-L

NOTE: 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.



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Ratings of the L licence (66.A.1(d))

NOTE: Will likely be moved to 66.A.45 before adoption of the rule.

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

NOTE: "Wooden" includes "metal tubing & fabric"

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

No limitations exist on these ratings



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.

The Part-66 AML (Form 26) has been split into Form 26A (for all licences except L) and Form 26B (for L licence) to include the B3 and L licence.

NOTE: It is likely that finally, before adoption by the Commission, this is changed to a single Form 26 covering all the licences.



Training / examination requirements (66.A.25(b) and (c))

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 (see 66.A.25(c) and 66.A.30(a)6(ii)).
- For aircraft with several structure materials (for the primary structure), the combination of training must be attended.
- Training courses may be conducted by
 - ✦ 147 organisations,
 - ✦ as approved by the competent authority.
- Examination in accordance with Appendix VIII.



Training requirements (Appendix VII)

Licence Level	RATINGS	Modules required for each rating and duration
Limited-L	Wooden airframe	L1, L2, L3, L4, L7, L9 98H
	Composite airframe	L1, L2, L3, L5, L7, L9 98H
	Metal airframe	L1, L2, L3, L6, L7, L9 98H
	Powerplant	L1, L2, L3, L8, L9 71H
	Hot air balloons	L1, L2, L3, L9, L10 56H
	Gas balloons	L1, L2, L3, L9, L11 56H
	Hot air airships	L1, L2, L3, L9, L10, L12 71H
	Gas airships	L1, L2, L3, L9, L11, L12 71H



Training requirements (Appendix VII)

Licence Level	RATINGS	Modules required for each rating (in addition to Limited-L) and additional duration	
Full-L	Wooden aircraft	L3, L4, L7, L8	+47H
	Composite aircraft	L3, L5, L7, L8	+47H
	Metal aircraft	L3, L6, L7, L8	+47H
	Wooden sailplanes	L3, L4, L7	+32H
	Composite sailplanes	L3, L5, L7	+32H
	Metal sailplanes	L3, L6, L7	+32H
	Hot air balloons	L3, L10	+22H
	Gas balloons	L3, L11	+22H
	Hot air airships	L3, L10, L12	+37H
	Gas airships	L3, L11, L12	+37H
	Radio-Comm / Transponder	L13	+15H



Experience requirements (66.A.30(a)6 and 7)

Experience requirements for rating endorsement:

For Limited-L

- Sufficient time to cover a representative cross-section of maintenance activities in the rating,
- but not less than:
 - ✧ those qualified with basic training and exam i.a.w Appendix VII and VIII: 6 months
 - ✧ those not attending training: 12 months

For Full-L

- 1 year experience as Limited-L covering a cross-section of maintenance activities in the rating. **Not required when adding another rating to an existing Full-L licence (the experience required for the Limited-L is enough).**



Experience requirements (AMC66.A.30(a)6 and 7)

The representative cross-section of maintenance activities in the rating should cover as a minimum:

For aeroplanes, sailplanes and powered sailplanes:

- 50% of relevant tasks from Appendix II to AMC.

For balloons and airships:

- Limited-L: 80% of relevant tasks from Appendix II to AMC.
- Full-L: 80% of relevant tasks from Appendix II to AMC including all the tasks with an (*).



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How to get an L licence from a B1.2 or a B3: (66.A.25(d) and 66.A.30(a)8))

- 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 and conversion provisions



Transition provisions for the L licence

(Further extension of the Part-66 opt-out for aircraft not involved in CAT other than large will be discussed before adoption of the rule)

- 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, paragraph 8)
- 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 (66.A.70).



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Conversion provisions for B3 and L licenses

- ★ Conversion of national qualifications is possible.



Summary of licences and use of licensed personnel



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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).