

## Bilag 1 - Matrix med krævede modul-sæt for given kategori/underkategori

Note: Nyt appendix 1 til Part 66 seneste revision (EC1149/2011) træder i kraft i 1. august 2012 indeholdende Kategori B3.

Teoretisk viden:

Part 66, Appendix 1 angiver i hvilke emner (moduler) der ved eksamination skal demonstreres viden:

Subject modules	A or B1 Aeroplane with		A or B1 Helicopter with		B2 Avionics
	Turbine	Piston	Turbine	Piston	
1. Mathematics	X	X	X	X	X
2. Physics	X	X	X	X	X
3. Electrical Fundamentals	X	X	X	X	X
4. Electronic Fundamentals	X	X	X	X	X
5. Digital Techniques Electronic instruments	X	X	X	X	X
6. Materials and Hardware	X	X	X	X	X
7. Maintenance Practices	X	X	X	X	X
8. Basic Aerodynamics	X	X	X	X	X
9. Human Factors	X	X	X	X	X
10. Aviation Legislation	X	X	X	X	X
11. Aeroplane Aerodynamics, Structures and Systems	X (11.a)	X (11.b)			
12. Helicopter Aerodynamics, Structures and Systems			X	X	
13. Aircraft Aerodynamics, Structures and Systems					X
14. Propulsion					X
15. Gas Turbine Engine	X		X		
16. Piston Engine		X		X	
17. Propeller	X	X			
18. Reserved					

## Bilag 2 - Krav til erfaring for udstedelse af Part-66 AML

Note: I Part 66 seneste revision (EC1149/2011), der træder i kraft i 1. august 2012, angives kravene for Kategori B3.

Krav til erfaring ved udstedelse af Part-66 AML – delkrav:

1. Krav til generel erfaring
2. Krav til erfaring indenfor den (under)kategori der ansøges om.
3. Krav til nylig erfaring
4. Evt. krav til supplerende erfaring indenfor *civil maintenance environment*

1. Krav til generel erfaring (se note 1)	Efter gennemført Part 147 <i>basic training</i>	Tidligere "skilled worker" (se note 2)	Ingen tidligere teknisk baggrund
Kategori A, B1.2 eller B1.4	1 år	2 år	3 år
Kategori B1.1, B1.3 eller B2	2 år	3 år	5 år

2. Krav til erfaring indenfor den (under)kategori der ansøges om. (se note 3)	
Gældende for samtlige (under)kategorier: A1, A2, A3, A4, B1.1, B1.2, B1.3, B1.4 eller B2	1 år "nylig erfaring" (se delkrav 3)

3. Krav til "nylig erfaring"
"Nylig erfaring" (recent experience) defineres som: Mindst 50% af den krævede "nylige erfaring" skal være opnået indenfor de seneste 12 måneder før ansøgningsdatoen. Resten af den krævede "nylige erfaring" skal være opnået indenfor de seneste 7 år.

Supplerende krav ved udstedelse hvis erfaring er opnået udenfor det civile flyvedligeholdelsesmiljø:

4. Krav til ekstra erfaring i det civile flyvedligeholdelsesmiljø hvis den generelle erfaring er opnået udenfor det civile flyvedligeholdelsesmiljø. (I Danmark erfaring fra flyvevåbnet)	
Kategori A	½ år
Kategori B1 og B2	1 år

Note 1.

Generel erfaring omfatter arbejde med et repræsentativt udvalg af vedligeholdelsesopgaver på luftfartøjer.

Note 2

Begrebet "skilled worker" omfatter personer med svendebrev eller uddannelsesbevis inden for Smede- og Maskinarbejderfagets smede- og maskinlinie, transportlinie eller elektroniklinie med mindst 3 års læretid eller anden håndværksmæssig uddannelse, der efter Statens Luftfartsvæsenes vurdering kan sidestilles hermed.

Note 3

Der skal være praktisk vedligeholdelseserfaring på luftfartøjer i drift i den underkategori, der er relevant for ansøgningen.

### Bilag 3 - Krav til erfaring for udvidelse af Part-66 AML med anden kategori:

Part 66, Appendix IV:

Til: Fra:	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
A1		6 Mdr.	6 Mdr.	6 Mdr.	2 år	6 Mdr.	2 År	1 År	2 År
A2	6 Mdr.		6 Mdr.	6 Mdr.	2 år	6 Mdr.	2 År	1 År	2 År
A3	6 Mdr.	6 Mdr.		6 Mdr.	2 år	1 År	2 År	6 Mdr.	2 År
A4	6 Mdr.	6 Mdr.	6 Mdr.		2 år	1 År	2 År	6 Mdr.	2 År
B1.1	Ingen	6 Mdr.	6 Mdr.	6 Mdr.		6 Mdr.	6 Mdr.	6 Mdr.	1 År
B1.2	6 Mdr.	Ingen	6 Mdr.	6 Mdr.	2 år		2 År	6 Mdr.	2 År
B1.3	6 Mdr.	6 Mdr.	Ingen	6 Mdr.	6 Mdr.	6 Mdr.		6 Mdr.	1 År
B1.4	6 Mdr.	6 Mdr.	6 Mdr.	Ingen	2 år	6 Mdr.	2 År		2 År
B2	6 Mdr.	6 Mdr.	6 Mdr.	6 Mdr.	1 År	1 År	1 År	1 År	

1. Den praktiske vedligeholdelseserfaring skal være på luftfartøjer i drift i den kategori/underkategori, der er relevant for ansøgningen.
2. Ved gennemført Part 147 *Basic Training Course*, reduceres ovenstående erfaringskrav med 50 %.
3. Ovenstående erfaringskrav skal samtidig opfylde kravet til "nylig erfaring (recent maintenance experience)" – se bilag 2, delkrav 3 & informationen herunder.

#### **Definition på nylig erfaring = recent maintenance experience:**

66.A.30 Basic experience requirements

(d) At least 1 year of the required experience shall be recent maintenance experience on aircraft of the category/ subcategory for which the initial aircraft maintenance licence is sought. For subsequent category/subcategory additions to an existing aircraft maintenance licence, the additional recent maintenance experience required may be less than 1 year, but shall be at least 3 months. The required experience shall be dependent upon the difference between the licence category/subcategory held and applied for. Such additional experience shall be typical of the new licence category/subcategory sought.

#### **AMC 66.A.30(d) Basic experience requirements**

To be considered as recent experience, at least 50 % of the required 12 month recent experience should be gained within the 12-month period prior to the date of application for the aircraft maintenance licence. The remainder of the recent experience should have been gained within the 7-year period prior to application. It must be noted that the rest of the basic experience required by 66.A.30 must be obtained within the 10 years prior to the application as required by 66.A.30(f).

Bilag 4 - Dokumentation for erfaring:

I forbindelse med udstedelse og udvidelse af et Part-66 AML, er det ansøgerens og den godkendte vedligeholdelsesorganisation ansvar for at kunne tilvejebringe en dokumentation, som kan vise hvordan man kan adskille de enkelte delkrav, som angivet i bilag 2.

Der er i Part 66 (seneste revision EU 1149/2011) og i det vejledende materiale AMC & GM (seneste revision 2012/004/R) taget stilling til, hvilken form dokumentation for erfaring skal antages. Se herunder for uddrag fra regelsættet vedr. logbog.

**Note: Information is not complete, for the full text, please refer to (EU) 1149/2011 & ED 2012/004/R.**

**Appliance of Logbook:**

- *To satisfy the 6/24M requirement (Se informationen herunder); and*
- *For recording practical experience when obtaining category experience (endorsement of a new category/subcategory). (Se informationen herunder og menupunkt "Udvidelse med ny kategori" på Trafikstyrelsens hjemmeside)*

**Appliance of OJT:**

- *Group 1 aircraft: Requirement when applying for the first type within a category/subcategory (Se informationen herunder og menupunkt "Typeuddannelse 1" på Trafikstyrelsens hjemmeside)*
- *Group 1 aircraft: DTA requirement when applying for a Part 147/145 typecourse approval (Se informationen herunder og menupunkt "Typeuddannelse 1a" på Trafikstyrelsens hjemmeside)*

**Appliance of practical experience when applying for endorsement of Group 2 & 3 aircraft ratings:**

- *See AMC 66.A.45(d), (e)3, (f)1 and (g)1 Endorsement with aircraft ratings (Se informationen herunder og menupunkt "Typeuddannelse 2" på Trafikstyrelsens hjemmeside)*

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**66.A.10 Application**

(f) Each application shall be supported by documentation to demonstrate compliance with the applicable theoretical knowledge, **practical training and experience** requirements at the time of application.

**AMC 66.A.10 Application**

1. Maintenance experience should be written up in a manner that the reader has a reasonable understanding of where, when and what maintenance constitutes the experience.

**A task-by-task account is not necessary but at the same time a bland statement "X years maintenance experience completed" is not acceptable.**

A logbook of maintenance experience is desirable and some competent authorities may require such a logbook to be kept. It is acceptable to cross-refer in the EASA Form 19 to other documents containing information on maintenance.

**66.A.20 Privileges**

**(b) The holder of an aircraft maintenance licence may not exercise its privileges unless:**

**2. in the preceding 2-year period he/she has, either had 6 months of maintenance experience in accordance with the privileges granted by the aircraft maintenance licence or, met the provision for the issue of the appropriate privileges;**

**AMC 66.A.20(b)2 Privileges**

The 6 months maintenance experience in 2 years should be understood as consisting of two elements: duration and nature of the experience. The minimum to meet the requirements for these elements may

vary depending on the size and complexity of the aircraft and type of operation and maintenance.

#### **1. Duration:**

- **6 months working within the same organisation; or**
- **6 months split up into different blocks, working within the same or in different organisations.**

**The 6-month period can be replaced by 100 days of maintenance experience** in accordance with the privileges, whether they have been performed within an approved organisation, or as independent certifying staff according to M.A.801(b)2, or as a combination thereof.

When the licence holder maintains and releases aircraft in accordance with M.A.801(b)2, in certain circumstances this number of days may even be reduced by 50 % when agreed in advance by the competent authority. These circumstances consider the cases where the licence holder happens to be the owner of an aircraft and carries out maintenance on his own aircraft, or where a licence holder maintains an aircraft operated for low utilisation, that does not allow the licence holder to accumulate the required experience. This reduction should not be combined with the 20 % reduction permitted when carrying out technical support, or maintenance planning, continuing airworthiness management or engineering activities. To avoid a too long period without experience, the working days should be spread over the intended 6-month period.

#### **2. Nature of the experience:**

**Depending on the category of the aircraft maintenance licence, the following activities are considered relevant for maintenance experience:**

- **Servicing;**
- **Inspection;**
- **Operational and functional testing;**
- **Troubleshooting;**
- **Repairing;**
- **Modifying;**
- **Changing component;**
- **Supervising these activities;**
- **Releasing aircraft to service.**

For category A licence holders, the experience should include exercising the privileges, by means of performing tasks related to the authorisation on at least one aircraft type for each licence subcategory. This means tasks as mentioned in AMC 145.A.30(g), including servicing, component changes and simple defect rectifications.

For category B1, B2 and B3, for every aircraft type rating included in the authorisation the experience should be on that particular aircraft or on a similar aircraft within the same licence (sub)category. Two aircraft can be considered as similar when they have similar technology, construction and comparable systems, which means equally equipped with the following (as applicable to the licence category):

- Propulsion systems (piston, turboprop, turbofan, turboshaft, jet-engine or push propellers); and
- Flight control systems (only mechanical controls, hydromechanically powered controls or electromechanically powered controls); and
- Avionic systems (analogue systems or digital systems); and
- Structure (manufactured of metal, composite or wood).

For licences endorsed with (sub)group ratings:

- In the case of a B1 licence endorsed with (sub)group ratings (either manufacturer subgroup or full (sub)group) as defined in 66.A.45, the holder should show experience on at least one aircraft type per (sub)group and per aircraft structure (metal, composite or wood).

- In the case of a B2 licence endorsed with (sub)group ratings (either manufacturer subgroup or full (sub)group) as defined in 66.A.45, the holder should show experience on at least one aircraft type per (sub)group.
- In the case of a B3 licence endorsed with the rating “piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below” as defined in 66.A.45, the holder should show experience on at least one aircraft type per aircraft structure (metal, composite or wood).

For category C, the experience should cover at least one of the aircraft types endorsed on the licence.

For a combination of categories, the experience should include some activities of the nature shown in paragraph 2 in each category.

A maximum of 20 % of the experience duration required may be replaced by the following relevant activities on an aircraft type of similar technology, construction and with comparable systems:

- Aircraft maintenance related training as an instructor/assessor or as a student;
- Maintenance technical support/engineering;
- Maintenance management/planning.

**The experience should be documented in an individual logbook or in any other recording system (which may be an automated one) containing the following data:**

- **Date;**
- **Aircraft type;**
- **Aircraft identification, i.e. registration;**
- **ATA Chapter (optional);**
- **Operation performed i.e. 100 FH check, MLG wheel change, engine oil check and complement, SB embodiment, troubleshooting, structural repair, STC embodiment...;**
- **Type of maintenance, i.e. base, line;**
- **Type of activity, i.e. perform, supervise, release;**
- **Category used: A, B1, B2, B3 or C;**
- **Duration in days or partial-days.**

#### **GM 66.A.20(b)2 Privileges**

The sentence “met the provision for the issue of the appropriate privileges” included in 66.A.20(b)2 means that during the previous 2 years the person has met all the requirements for the endorsement of the corresponding aircraft rating (for example, in the case of aircraft in Group 1, theoretical plus practical element plus, if applicable, on-the-job training). This supersedes the need for 6 months of experience for the first 2 years. However, the requirement of 6 months of experience in the preceding 2 years will need to be met after the second year.

#### **AMC 66.A.20(b)3 Privileges**

The wording “has the adequate competence to certify maintenance on the corresponding aircraft” means that **the licence holder and, if applicable, the organisation where he/she is contracted/employed, should ensure that he/she has acquired the appropriate knowledge, skills, attitude and experience to release the aircraft being maintained.** This is essential because some systems and technology present in the particular aircraft being maintained may not have been covered by the training/examination/experience required to obtain the licence and ratings.

This is typically the case, among others, in the following situations:

- Type ratings which have been endorsed on a licence in accordance with Appendix I to AMC to Part-66 “List of Type Ratings” after attending type training/on-the-job training which did not cover all the models/variants included in such rating. For example, a licence endorsed with the rating Airbus A318/A319/A320/A321 (CFM56) after attending type training/on-the-job training covering only the Airbus 320 (CFM56).
- Type ratings which have been endorsed on a licence in accordance with Appendix I to AMC to Part-66 “List of Type Ratings” after a new variant has been added to the rating in Appendix I, without performing difference training. For example, a licence endorsed with the rating Boeing 737-600/700/800/900 for a person who already had the rating Boeing 737-600/700/800, without performing any difference training for the 737-900.
- Work being carried out on a model/variant for which the technical design and maintenance techniques have significantly evolved from the original model used in the type training/on-the-job training.
- Specific technology and options selected by each customer which may not have been covered by the type training/on-the-job training.
- Changes in the basic knowledge requirements of Appendix I to Part-66 not requiring reexamination of existing licence holders (grandfathered privileges).
- The endorsement of group/subgroup ratings based on experience on a representative number of tasks/aircraft or based on type training/examination on a representative number of aircraft.
- Persons meeting the requirements of 6 months of experience every 2 years only on certain similar aircraft types as allowed by AMC 66.A.20(b)2.
- Persons holding a Part-66 licence with limitations, obtained through conversion of national qualifications (66.A.70), where such limitations are going to be lifted after performing the corresponding basic knowledge examinations. In this case, the type ratings endorsed in the licence may have been obtained in the national system without covering all the aircraft systems (because of the previous limitations) and there will be a need to assess and, if applicable, to train this person on the missing systems.

**Additional information is provided in AMC 145.A.35(a).**

#### **GM 66.A.20(b)4 Privileges**

1. Holders of a Part-66 aircraft maintenance licence may only exercise certification privileges when they have a general knowledge of the language used within the maintenance environment including knowledge of common aeronautical terms in the language. The level of knowledge should be such that the licence holder is able to:

- read and understand the instructions and technical manuals used for the performance of maintenance;
- make written technical entries and any maintenance documentation entries, which can be understood by those with whom they are normally required to communicate;
- read and understand the maintenance organisation procedures;
- communicate at such a level as to prevent any misunderstanding when exercising certification privileges.
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2. In all cases, the level of understanding should be compatible with the level of certification privileges exercised.

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#### **AMC 66.A.45(d), (e)3, (f)1 and (g)1 Endorsement with aircraft ratings**

Practical experience should be demonstrated by the submission of records or a logbook showing the Appendix II tasks performed by the applicant. **Typical data to be recorded are similar to those described in AMC 66.A.20(b)2.**

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**Appliance of OJT program (and OJT compliance list):**

- For first type rating endorsement in a category/subcategory
- For Aircraft in group 1, as part of the approval of a Part 147/145 type training.
- For Aircraft in group 2 & 3 when applying for type rating endorsement

**Part 66 Appendix III**

**6. On the Job Training**

On the Job Training (OJT) shall be approved by the competent authority who has issued the licence. It shall be conducted at and under the control of a maintenance organisation appropriately approved for the maintenance of the particular aircraft type and shall be assessed by designated assessors appropriately qualified.

It shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

**(a) Objective:**

The objective of OJT is to gain the required competence and experience in performing safe maintenance.

**(b) Content:**

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 (*DTA note: Only when OJT is approved as part of a Group 1 Aircraft directly approved typecourse*).

**The following data shall be addressed on the OJT worksheets/logbook:**

1. Name of Trainee;
2. Date of Birth;
3. Approved Maintenance Organisation;
4. Location;
5. Name of supervisor(s) and assessor, (including licence number if applicable);
6. Date of task completion;
7. Description of task and job card/work order/tech log, etc.;
8. Aircraft type and aircraft registration;
9. Aircraft rating applied for.

**In order to facilitate the verification by the competent authority, demonstration of the OJT shall consist of (i) detailed worksheets/logbook and (ii) a compliance report demonstrating how the OJT meets the requirement of this Part.**

I "AMC 66.A.45(d) Type/task training and ratings" er der angivet:

Practical experience should be demonstrated by the submission of records or a logbook showing the Appendix II tasks performed by the applicant. Typical data to be recorded are similar to those described in AMC 66.A.20(b)2.