



NORWEGIAN DEFENCE MATERIEL AGENCY
MILITARY AIRWORTHINESS AUTHORITY NORWAY

Telephone: +47 971 99 505

E-mail: maa-nor@mil.no

Web: www.maanor.no

Mail to be registered:

Forsvarsmateriell Luftkapasiteter

Postboks 800, Postmottak

2617 Lillehammer

Norway

E-mail: maa-nor@mil.no

MAIB-NOR 24/01 04 JUN

MAA-NOR MAML category A guidance

This MAIB is created to give guidance regarding MAML category A privileges and opportunities. This guidance will only provide an overview, and not an in-depth analysis of all possibilities.

All text with reference to EMAR 66, is from EMAR 66 and EMAR 66 AMC & GM edition 1.0, dated: 23 sept 2014.

All text with reference to EMAR 145, is from EMAR 145 edition 1.2, dated 04 oct 2016 and EMAR 145 AMC & GM edition 1.3, dated 12 feb 2019.

All text with reference to EMAR 147, is from EMAR 147 edition 1.1, dated 23 sept 2014 and EMAR 147 AMC & GM edition 1.2 dated 21 may 2019.

MAML categories

EMAR 66.A.3:

(a) *Military Aircraft Maintenance Licences (MAML) include the following categories:*

- *Category A*
- *Category B1*
- *Category B2*
- *Category C*

(b) *Categories A and B1 are subdivided into subcategories relative to combinations of aeroplanes, helicopters, turbine and piston engines. These subcategories are:*

- *A1 and B1.1 Aeroplanes Turbine*
- *A2 and B1.2 Aeroplanes Piston*
- *A3 and B1.3 Helicopters Turbine*
- *A4 and B1.4 Helicopters Piston*

MAIB-NOR 24/01 04 JUN

MAML category A basic principles

MAA-NOR clarification of the basic principles for category A MAML:

- Category A must be present in the MAML.
- There is no requirement to have aircraft type rating related to category A.
- The MAML category A holder must be authorised by the AMO(s) (Approved Maintenance Organisation) where the holder will work and sign category A CRS for.
- The AMO must describe in MOE how they will perform and manage all necessary step to assess, train, evaluate and authorize the category A MAML holder (list is not exhaustive). This is the same principle as for B1, B2, C but for a category A authorization the AMO must specify in detail the tasks the certifying staff shall be authorised for.
- MOE procedures are subject to evaluation and approval by MAA-NOR, as an MOE direct approval.
- AMC 145.A.30(g) *Personnel requirements* gives a general description of the level of work that can be performed by category A certifying staff.
- Category A certification privileges shall be restricted to work that the licence holder has personally performed in the EMAR 145 AMO that issued the certification authorisation.
- The requirement for continuation training (including 6/24month practical experience) applies for all MAML categories/ subcategories and aircraft types the personnel has authorisation for. (Ref. EMAR 145.A.35)

MAML category A privileges

EMAR 66.A.20(a)(1)

A Category A MAML permits the holder to issue certificates of release to service (CRS) following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in EMAR 145.A.35. The certification privileges shall be restricted to work that the licence holder has personally performed in the EMAR 145 AMO that issued the certification authorisation.

EMAR 66.A.20 (b)

The holder of a MAML shall not exercise its privileges unless¹:

- 1. in compliance with the applicable requirements of EMAR M and EMAR 145; and*
- 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 MAML, or met the provision for the issue of the appropriate privileges; and*
- 3. he/she has the adequate competence to certify maintenance on the corresponding aircraft; and*
- 4. he/she is able to read, write and communicate to an understandable level in the language(s) in which the technical documentation and procedures necessary to support the issue of the certificate of release to service are written.*

¹ *The holder of a Category A MAML may only exercise certification privileges on a specific aircraft type following the satisfactory completion of the relevant Category A aircraft task training carried out by an organisation appropriately approved in accordance with EMAR 145 or EMAR 147. This training shall include practical hands-on training and theoretical training as appropriate for each task authorised. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment carried out by the EMAR 145 AMO or EMAR 147 MTO.*

MAIB-NOR 24/01 04 JUN

Basic knowledge requirement for category A.

EMAR 66.A.25 Basic knowledge requirements

(a) An applicant for a MAML, the extension to a MAML or the addition of a category or subcategory to such a MAML, shall demonstrate by examination a level of knowledge in the appropriate subject modules in accordance with EMAR 66 Appendix I. The examination shall be conducted either by an MTO appropriately approved in accordance with EMAR 147 or by the NMAA.

The basic experience requirements are given in EMAR 66.A.30.

MAA-NOR clarification A candidate who satisfy the “basic knowledge requirements” in 66.A.25 on category B1 level, can apply for category A MAML once the “basic experience requirements”, for cat. A, in 66.A.30 is fulfilled.

For practical purposes this means that a B1 candidate can apply for cat. A within the same MAML subcategory before he/ she fulfils the practical training requirements for B1.

Note: **EMAR 66.A.15:** *An applicant for a MAML shall be at least 18 years of age.*

EMAR 145.A.35 (m): *The minimum age for certifying staff and support staff shall be 21 years.*

Expected documentation to be sent together with Form 19 (MAML application):

- The CoR (s) for applicable B1 exams
- Documentation specifying minimum practical training in both 147 school environment and 147 practical training in “realistic maintenance working environment” (Ref. EMAR 147 Appendix I)
- Documentation specifying practical maintenance experience on operating military aircraft.

Example:

This can be the students "basic work experience record", used to document experience during 147 practical training in a "realistic maintenance work environment", together with documents proving satisfactory completion of practical training in a 147-school environment.

For practical maintenance experience in a 145 organisation, the AMOs system for recording experience for authorization purposes can be used.

This is only an example. All matters relating to MAML will be subject to evaluation in the application process.

MAA-NOR clarification The holder of MAML category B1 will in general be entitled for category A within the same MAML subcategory he/she already has, since level of knowledge and practical experience requirement already exceeds the requirement for category A.

Note: This will require application (Form 19) and are subject for evaluation by MAA-NOR, this applies for all applications regarding MAML.

Even though EMAR 66.A.20 (a) states: “Category B1 includes the corresponding A subcategory”, MAA-NOR will require that the MAML holder has cat. A endorsed in the MAML.

MAA-NOR will from now include cat. A in the MAML for new B1 MAML applicants. If an AMO already have personnel with B1 MAML and “urgently” need A-rating for this personnel, contact the MAA-NOR if prioritization must be taken into consideration.

MAIB-NOR 24/01 04 JUN

Different MAML categories

If a MAML cat. B holder want to apply for cat. A or B within another MAML subcategory, for example.: Cat B1.1 (aeroplanes turbine) want cat. A for “helicopter turbine”, he/ she must document basic knowledge requirements for “helicopter turbine” in this example, i.a.w EMAR 66.A.25. He/ she must also satisfy experience requirements given in EMAR 66 appendix IV, shown on page 6.

MAA-NOR clarification For experience requirement in general, ref. EMAR 66.A.30 (b), (c), (d), (e) and (f) AMC 66.A.30 (d) describes acceptable means of compliance for what is considered as “recent maintenance experience”, this interpretation can be used for all combinations in EMAR 66 appendix IV.

Regarding “basic knowledge requirement”, be aware that EMAR 66.A.25 (b) states: “*The training courses and examinations shall be passed within 10 years prior to the application for a MAML, the extension to a MAML or the addition of a category or subcategory to such a MAML (...)*”.

For any further details ref. EMAR 66.A.25 (b), (c), (d).

An application (Form 19) must be sent to MAA-NOR for evaluation, to add category A or B on a different MAML subcategory.

MAML category B2

Ref. EMAR 66.A.20(a)(3): “*Category B2 does not include any A subcategory*”. As opposed to category B1. The privileges for category B2 to exercise similar work as a category A are as follows:

EMAR 66.A.20 privileges

(a)(3) A Category B2 MAML shall permit the holder:

- (ii) to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in EMAR 145.A.35. This certification privilege shall be restricted to work that the MAML holder has personally performed in the AMO which issued the certification authorisation and limited to the Military Aircraft Type Ratings already endorsed in the B2 MAML.*

Category B2 does not include any A subcategory.

(b) The holder of a MAML shall not exercise his/her privileges unless²:

- 1. in compliance with the applicable requirements of EMAR M and EMAR 145; and*
- 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 MAML or, met the provision for the issue of the appropriate privileges; and*
- 3. he/she has the adequate competence to certify maintenance on the corresponding aircraft; and*

² *The holder of a Category B2 MAML may only exercise the certification privileges described in EMAR 66.A.20(a)(3)(ii) following the satisfactory completion of:*

- i. the relevant Category A aircraft task training; and*
- ii. 6 months of documented practical experience covering the scope of the authorisation that will be issued.*

The task training shall include practical hands-on training and theoretical training as appropriate for each task authorised.

Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment.

Task training and examination/assessment shall be carried out by the EMAR 145 AMO issuing the certifying staff authorization or EMAR 147 MTO. The practical experience shall be obtained within the same EMAR 145 AMO.

MAIB-NOR 24/01 04 JUN

4. *he/she is able to read, write and communicate to an understandable level in the language(s) in which the technical documentation and procedures necessary to support the issue of the certificate of release to service are written.*

MAA-NOR clarification This seems equal to the “regular category A”. The main differences are that category B2 does not include a category A in the MAML. The MAML holder can be authorised as described above but be aware that it is limited to aircraft type(s) already endorsed in the MAML and the requirement for practical training is more extensive.

If a category B2 MAML holder want to apply for a category A in his/ her MAML:

He/ she must document basic knowledge requirements (for applicable MAML subcategory, ref “MAML categories” on page 1) i.a.w EMAR 66.A.25. The applicant must also satisfy experience requirements given in EMAR 66 appendix IV, shown on page 6.

Maintenance personnel not holding a MAML or holding a MAML but not authorised as certifying staff.

There are various categories of maintenance personnel the AMO can authorise. In general this means the AMO must have procedures in MOE to (list is not exhaustive): Evaluate, train and authorise personnel to “sign off”³ tasks.

An authorised “sign-off” person is not authorised to issue a release to service for aircraft or component or engine or NDT unless he/she is also holding a “certifying staff privilege” - (**EMAR 145 AMC&GM Appendix V, 3.8**).

EMAR 145 AMC&GM Appendix V, 3.7 and 3.8 provides basic principles and description of what is expected procedures in the MOE for this personnel category.

³ A “sign-off” is a statement by the competent person performing or supervising the work, that the task or group of tasks has been correctly performed. A sign-off relates to one step in the maintenance process and is therefore different from the release to service of the aircraft.

MAIB-NOR 24/01 04 JUN

EMAR 66 – MILITARY AIRCRAFT MAINTENANCE LICENSING

Appendix IV Experience requirements for an addition to an EMAR 66 Military Aircraft Maintenance Licence

The table below shows the experience requirements for adding a new category or subcategory to an existing EMAR 66 MAML including military-specific modules.

The experience shall be practical maintenance experience on operating aircraft in the subcategory relevant to the application.

The experience requirement will be reduced by 50% if the applicant has completed an approved EMAR 147 course relevant to the subcategory.

From	To	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
A1	—	6 months	6 months	6 months	6 months	2 years	6 months	2 years	1 year	2 years
A2	6 months	—	6 months	6 months	6 months	2 years	6 months	2 years	1 year	2 years
A3	6 months	6 months	—	6 months	6 months	2 years	1 year	2 years	6 months	2 years
A4	6 months	6 months	6 months	—	6 months	2 years	1 year	2 years	6 months	2 years
B1.1	None	6 months	6 months	6 months	6 months	—	6 months	6 months	6 months	1 year
B1.2	6 months	None	6 months	6 months	6 months	2 years	—	2 years	6 months	2 years
B1.3	6 months	6 months	None	6 months	6 months	6 months	6 months	—	6 months	1 year
B1.4	6 months	6 months	6 months	None	6 months	2 years	6 months	2 years	—	2 years
B2	6 months	6 months	6 months	6 months	6 months	1 year	1 year	1 year	1 year	—

MAA-NOR clarification Definition of an “approved EMAR 147 course relevant to the subcategory” is appropriate course(s) in modules per EMAR 66 appendix I. In general EASA course in same modules can be accepted, provided the applicant has completed an EASA/ EMAR delta training course.

In general, all matters regarding MAML will be subject to evaluation in the application process.