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ADVISORY CIRCULAR

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**CERTIFICATE OF RELEASE TO SERVICE
RESPONSIBILITIES FOR MAINTENANCE
ORGANISATIONS AND CAMOs**

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CERTIFICATE OF RELEASE TO SERVICE RESPONSIBILITIES FOR MAINTENANCE ORGANISATIONS AND CAMOs

An Advisory Circular is issued by the Authority to promulgate important information to the Defence Aviation community, but does not mandate any action. This includes informing the community on aviation safety / airworthiness matters, information that enhances compliance understanding for existing regulation, or policy guidance for aviation issues not yet regulated that requires further understanding.

Audience

This Advisory Circular (AC) is relevant to:

Entities regulated by the Defence Aviation Safety Regulations (DASR) exercising roles or responsibilities associated with Initial/Continued and Continuing Airworthiness comprising of MAO organisations (including CAMO and CAMO service providers) and maintenance organisations (DASR 145 organisations).

Purpose

The purpose of this Advisory Circular (AC) is to provide guidance in relation to the Certificate of Release (CRS) process for aircraft maintenance, specifically the functions and responsibilities of CAMOs and maintenance organisations (MOs). The AC aims to consolidate the applicable requirements from different sections of the DASR and describes the intended outcomes in relation to CRS as interpreted by Defence Aviation Safety Authority (DASA).

Further information

For further information on this AC, contact:

The Directorate of Aviation Regulation, [DAVREG-DASA](#)

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Status

This AC will remain current until cancelled by DASA.

Version	Date Approved	Approved By	Details
1.0	September 2018	DG DASA	Initial release

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1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AC	Advisory Circular
AMC	Acceptable Means of Compliance
CAM	Continuing Airworthiness Manager
CAMO	Continuing Airworthiness Management Organisation
CRE	Configuration, Role and Environment
CRS	Certificate of Release to Service
DASA	Defence Aviation Safety Authority
DASR	Defence Aviation Safety Regulation
Defence AA	Defence Aviation Authority
EMAR	European Military Airworthiness Requirements
GM	Guidance Material
MAO	Military Air Operator
MOE	Maintenance Organisation Exposition

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below.

Term	Definition
Endanger Flight Safety	Refer to AMC1 to 145.A.50(a) which states: <i>‘Endanger flight safety means any instance where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning (including overheating), electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An AD overdue for compliance is also considered a hazard to flight safety.’</i>

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1.3 References

1.3.1 AAP 8000.011 Defence Aviation Safety Regulations

1.3.2 EASA policy on Certificate of Release to Service for aircraft maintenance and associated responsibilities for maintenance organisations and CAMOs – 17 Dec 15

Unless specified otherwise, all regulation references in this AC refer to the Defence Aviation Safety Regulation (DASR).

2 Introduction

2.1 Background

2.1.1 Under the DASR framework, any work carried out on an aircraft, its systems and its components must be certified as fit to fly, on completion and prior to return to service. The instrument used to achieve this outcome is the Certificate of Release to Service (CRS) which must be issued before flight at the completion of any maintenance. The Certificate should contain as a minimum:

- Basic details of the maintenance that was carried out;
- Date such maintenance was completed;
- Identity of organisation and/or person issuing the release to service; and
- Limitations to airworthiness or operations, if there are any.

2.1.2 The requirements for CRS reside across multiple implementing regulation subsections (DASR M, DASR 145 and DASR 66) that collaboratively inform the regulated community of the Authority's requirement. The intent of this AC is to summarise the applicable requirements for CRS to assist the community in meeting the DASR.

3 Certificate of Release to Service Responsibilities for Maintenance organisations and CAMOs

3.1 Continuing airworthiness responsibilities

- 3.1.1 The continuing airworthiness responsibilities are described in detail in DASR M.A.201:
- the CAMO is responsible for all activities aimed to determine the airworthiness status of the aircraft and to appropriately plan and coordinate maintenance, and
 - the DASR 145 maintenance organisation is responsible for adequately performing and certifying the maintenance ordered by the CAMO.
- 3.1.2 As stated in DASR M.A.201(h), the operator is responsible for the continuing airworthiness of the aircraft it operates and shall be approved as a CAMO.
- 3.1.3 As stated in DASR M.A.708(b), these responsibilities include, among other aspects, ensuring that all maintenance requirements (Airworthiness Directives, maintenance program requirements, defect rectification, etc.) are complied with and released by DASR 145 maintenance organisations.
- 3.1.4 This means that the CAMO (on behalf of the operator) is responsible for planning and ordering all required maintenance and for ensuring that ordered maintenance is complete and the aircraft released to the CAMO by the DASR 145 maintenance organisation.
- 3.1.5 However, the CAMO is not responsible for the actual performance of maintenance, which is the responsibility of the DASR 145 organisation issuing the Certificate of Release to Service (CRS).
- 3.1.6 Important aspects to be considered are the following:
- The CAMO cannot issue CRS following maintenance; however, this does not prevent CAMO staff that hold the appropriate DASR 66 licence, and are authorised by a DASR 145 maintenance organisation to perform/supervise maintenance and issue a CRS.
 - When maintenance is performed and released by the DASR 145 organisation, the CAMO must have procedures to ensure that ordered maintenance is complete and the aircraft is released to the CAMO by the DASR 145 maintenance organisation. However, in order to perform this verification the CAMO is not required to use licence holders.
 - Since the CRS only certifies that the maintenance ordered by the CAMO has been performed and released in accordance with DASR 145, it does not guarantee that all the continuing airworthiness requirements are met

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(there may be some missing maintenance that has not been ordered by the CAMO). This airworthiness assessment is the responsibility of the CAMO.

- Consequently, the CAMO must have procedures to ensure that a flight does not take place unless all the continuing airworthiness requirements are met. This could be met, for example, by a procedure where the CAMO receives a communication from the maintenance organisation and the CAMO notifies the aircraft captain that there is no other maintenance due. However, other procedures are possible, for example; delegating the act of notifying the aircraft captain, to the DASR 145 organisation.
- The CRS issued by the DASR 145 organisation has to be recorded in the continuing airworthiness record system, together with all the information related to rectification of defects, deferral of maintenance actions, etc. This information shall be available to the aircraft captain (refer to DASR M.A.306 and AMC DASR M.A.306(a), who is ultimately responsible for accepting¹ the aircraft before a flight takes place.
- The continuing airworthiness record system must also contain a maintenance statement issued by the CAMO providing the status of which 'scheduled' and 'out of phase' maintenance is next due.

3.2 Certification of maintenance

3.2.1 145.A.50(a) states:

“A CRS for aircraft and a CRS for components shall be issued by appropriately authorised certifying staff on behalf of the AMO when it has been verified that all maintenance ordered/tasked has been properly carried out in accordance with the procedures specified in DASR 145.A.70, taking into account the availability and use of the maintenance data specified in DASR 145.A.45 and that there are no non-compliances which are known to endanger flight safety”.

3.2.2 In addition, DASR 145.A.50(b) states:

“A certificate of release to service shall be issued before flight at the completion of any maintenance”.

3.2.3 The wording of the requirements above has very often raised different interpretations. The following paragraphs present DASA's position.

¹ IAW DASR ORO.55 – Aircraft Captaincy.

3.3 How many CRS can be issued?

- 3.3.1 DASR 145.A.50(b) requires a CRS to be issued before flight at the completion of “any maintenance”. DASA’s position is that the words “any maintenance” can be interpreted in different ways, such as:
- “any maintenance task”
 - “any combination of maintenance tasks”
 - “any maintenance event”
- 3.3.2 Consequently, there can be different systems of release to service, such as:
- Several certificates of release to service are issued, each one of them covering a different single maintenance task.
 - Several certificates of release to service are issued, each one of them covering a different group of tasks.
 - A single certificate of release to service is issued covering all the maintenance included in a maintenance event.
- 3.3.3 It is important to note that if there are multiple CRS issued for separate tasks, or groups of tasks, the organisation must ensure that the CRS issued to the CAMO clearly identifies that all maintenance is complete². If there is any incomplete maintenance, the CRS must clearly identify it and the corresponding limitations (if any).
- 3.3.4 Regardless of which release system is used, the release to service procedure implemented by the maintenance organisation should suit the type of organisation, complexity, scope of work, etc., and has to ensure compliance with DASR 145.A.50. This means, among other aspects, that:
- A CRS must identify clearly the work performed and, if applicable, any incomplete work and the corresponding limitations.
 - A CRS can only be issued by licence holders (refer paragraph 3.5) with certification privileges exercising a licence privilege for all the maintenance tasks covered by the release statement.
 - In the case of Base maintenance, the CRS must be issued by Category C licence holders (refer paragraph 3.5).
- 3.3.5 The release to service procedures must ensure that all the maintenance actions have been properly coordinated, and the release to service is issued within a reasonable timeframe after the actual performance of the tasks.

² ensuring that there are no known non-compliances which are known to endanger flight safety.

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3.3.6 In addition, it is important to stress that a release to service, whether it is single or multiple, does not necessarily mean that the aircraft is airworthy and ready for flight. A release to service is just a release after the performance of maintenance and its issuance is the responsibility of the maintenance organisation. Though the licence holder is responsible for the 'endangers flight safety' assessment, the responsibility for defining the airworthiness status of the aircraft is the responsibility of the CAMO.

3.4 What does “there are no non-compliances which are known to endanger flight safety” mean?

3.4.1 The intent of this requirement is to cover those cases where the maintenance organisation, during the performance of the maintenance ordered by the CAMO, discovers a non-compliance which endangers flight safety as defined in AMC1 DASR 145.A.50(a). However, it is not the intent to require the DASR 145 maintenance organisation to find or become responsible for hidden non-compliances which are not expected to be discovered during the ordered maintenance.

3.4.2 Questions have been raised as to whether this also includes those situations where, after performing the maintenance ordered by the CAMO, the aircraft is left in a non-airworthy configuration. This could be the case, for example, where the maintenance organisation removes an engine for preservation (without installing a new one), or where the organisation performs an NDT inspection and finds a crack outside limits. These types of circumstances have raised questions as to whether in these cases a CRS can be issued for the maintenance performed.

3.4.3 All the cases mentioned above (including those of non-compliances affecting flight safety discovered during maintenance), can be properly addressed by using the provisions contained in DASR 145.A.50(c) and (e). Based on those provisions, it is possible to release the maintenance performed, as long as the incomplete maintenance is properly identified and communicated to the CAMO.

3.5 What does “appropriately authorised licence holder” mean?

3.5.1 This means that in order to issue a CRS following aircraft maintenance, licence holders have to be authorised by the maintenance organisation to do so. The word “appropriately” means that the person can only be authorised when the DASR 145 organisation has ensured compliance with all the applicable qualification requirements, only for the scope of work applicable to that qualification (refer to DASR 145.A.30 and DASR 145.A.35) and always within the privileges granted by the DASR 66 licence held by the person (refer to DASR 66.A.20).

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- 3.5.2 This means that, for example, in the case of a Line maintenance event which includes minor maintenance, routine checks, some minor scheduled servicing tasks and a defect rectification entered in the continuing airworthiness record system by the crew; if such an event includes tasks within the scope and approval of a single licence holder³, then a single release to service can be issued covering the full maintenance event. If different licence holders have the scope and approval for different tasks covering a maintenance event, as long as together they have the scope and approval to cover all tasks involved, they can issue separate release to service for the different tasks, the combination of what would become a multiple release system.
- 3.5.3 Generally, it is not possible for an Aircraft technician with an Aeroskills Cert IV (Mechanical) qualification (i.e. a B1 licence with exclusions) to issue a single release to service covering the full maintenance event because the scope of their licence precludes them from issuing a CRS following maintenance of electrical or avionics systems. Similarly, an Avionics technician with an Aeroskills Cert IV (Avionics) qualification and a B2 licence will not be able to issue the CRS because the scope of their licence does not include maintenance of mechanical systems. In this case a B1 licence holder is required to issue a release to service for the mechanical tasks and a B2 licence holder is required to issue a release to service for the avionics tasks, which would become a multiple release system.

3.6 What does “when it has been verified that all maintenance ordered for the aircraft has been properly carried out” mean?

- 3.6.1 This statement doesn't necessarily mean that licence holders have to perform or supervise the whole process of every task, but the necessity of assessing the complexity of each task, making sure that they have been assigned to personnel authorised to sign-off to the corresponding level, coordinating the different tasks, supporting the personnel in case of any mistakes or unexpected difficulties and ensuring that the job has been completed and signed-off properly.
- 3.6.2 This is not just an administrative task which can be performed from a remote location or without having been involved at all. Licence holders have the last call on the amount of involvement they would like to perform in order to be satisfied that the maintenance can be properly released, and this cannot be predefined or limited by the organisation's procedures. It is important to note that, in accordance with DASR 66.A.20, B1/B2 licence holders issuing a CRS must either perform or supervise the task.

³ That is, the licence holder's relevant licence exclusions have been removed and/or licence extensions have been added, thereby providing privileges for the entirety of the maintenance event.

3.7 In the case of Base maintenance, what are the functions and responsibilities of “support staff”?

3.7.1 The qualification criteria for licence holders and support staff are identical as both:

- must have a DASR 66 licence with the corresponding type ratings;
- must have the same recent experience and continuation training;
- must have training in human factors and company procedures; and
- are subject to the same competence assessment;

3.7.2 The only difference is that in the Base maintenance environment there is an additional function, the Category C licence holder. However, this function is more administrative due to the more complex environment.

3.7.3 Regarding the level of involvement of the support staff, 145.A.30(h) states that “B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the Category C licence holder issues the certificate of release to service”. This requirement is of a similar nature to the one contained in 145.A.50(a), where licence holders are required to ensure that “it has been verified that all maintenance ordered has been properly carried out”. As a consequence, the level of involvement expected from the support staff follows the same principles as indicated in paragraph 3.4, 3.5 and 3.6 above for a licence holder.

3.8 What is the function of personnel authorised to “sign-off”?

3.8.1 AMC 145.A.65(b)(3)3 states that, in order to prevent omissions, every task or group of tasks should be signed-off by authorised personnel after its completion. It also states that a “sign-off” is different from a “release to service”. It is important to note that personnel that ‘sign-off’ tasks do not necessarily have to be DASR 66 licence holders.

3.8.2 Furthermore, this AMC states that work by “unauthorised personnel” (temporary staff, trainee.) should be checked by “authorised personnel” before they sign-off. “They” means “authorised personnel” (formally authorised to sign-off).

3.8.3 This concept of personnel authorised to sign-off is in line with the provisions related to the assessment of personnel contained in AMC1 145.A.30(e)(3). This assessment should guarantee that “mechanics shall be able to carry out tasks to any standard specified in the maintenance data, and will notify supervisors of mistakes requiring rectification to re-establish required maintenance standards”.

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3.8.4 Nevertheless, holding a “sign off” authorisation doesn’t mean that the authorised person can sign-off all tasks. It means that he/she can sign-off tasks up to the authorised level, depending on the training and experience held, and in accordance with a procedure described in the MOE. Furthermore, even if this person is qualified and able to carry out the task to the required standard, this does not mean that licence holder and support staff are not needed. The presence of licence holders and support staff is an additional safety barrier and, as explained in paragraph 3.4, 3.5 and 3.6 above, has the function of coordinating the different tasks, supporting those mechanics in case of any mistakes or unexpected difficulties, ensuring that the job has been completed and signed-off by the mechanic, and signing the maintenance certification for the task/group of tasks.

Original Signed

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