FACTSHEET – DASR.139 AERODROME CERTIFICATION PROCESS

AIM

The aim of this factsheet is to support an Applicant in gaining aerodrome certification by providing a brief overview of the Defence aerodrome certification process under the DASR.139 – Aerodromes regulations, and highlight key aspects to consider.

INTRODUCTION

To support safe aircraft operations at Defence aerodromes, the Defence Aviation Safety Authority (DASA) released DASR.139 – Aerodromes regulations on 10 Apr 20. These regulations require all Defence aerodromes to be classified as Certified or Non Certified. For those aerodromes requiring certification, DASR 139.80 outlines the activities an Applicant needs to undertake to attain an Aerodrome Certificate from the Authority. Compliance with DASR 139.80 can be achieved by following the certification process developed by the Authority. This factsheet provides an overview of this certification process that aligns with the DASR 139.80 Regulations, Acceptable Means of Compliance (AMC) and Guidance Material (GM).

CERTIFICATION PROCESS

To achieve aerodrome certification, an Applicant¹ must undertake the following five primary activities:

- Define an Authority-agreed Certification Basis (CB) for the aerodrome.
- Demonstrate that the aerodrome design and construction complies with the agreed CB.
- Declare that the aerodrome design and construction complies with the agreed CB.
- Implement arrangements to support continued aerodrome compliance with the CB.
- Provide design information to support continuing safe operation of the aerodrome.

Each of these mandated activities (and other optional but supporting aspects) form the basis for the certification process in Figure 1 below.



Figure 1: DASR.139 – Aerodrome Certification Activities



¹ An Applicant, used in the context of the DASR.139.80 regulations, and this factsheet, is defined as any organisation or operator or its representative which applies for an aerodrome certificate.

While this certification process is applicable to both new aerodromes and those aerodromes requiring major changes, the primary focus of this Factsheet is on initial certification. The following discussion will describe each of the activities associated with the certification process outlined in Figure 1 in detail, thus guiding the reader through the overall certification process.

Define or Update the Operating Intent of the Aerodrome

Design requirements for Defence aerodromes are contained in Section 6 of AAP 7001.054 Airworthiness Design Requirements Manual (ADRM). As the operations taking place at each Defence aerodrome are unique, not all the requirements contained in the ADRM are applicable to every aerodrome. To help identify those requirements that are relevant and those requirements which are not, a clear understanding of the operations taking place at an aerodrome is needed.

A high level description of the facilities and operations are often captured in a Statement of Operating Intent (SOI) (or similar document)² for an aerodrome and can be used to identify relevant requirements. This document will help in tailoring the ADRM requirements when developing a CB (see section on CB below and *Factsheet – Defining Aerodrome Operating Intent* and *Factsheet – Aerodrome Design Requirements and Certification Basis*). It may also help inform development of compliance evidence and support on-going safe flight operations at the aerodrome.

While the DASA does not mandate the development or update of a specific document (such as a SOI), it is important to capture this information in some document before commencing the development of the CB. It is not likely that the design, construction and certification of an aerodrome can be achieved without a good understanding of the operations taking place at an aerodrome.

Develop a Certification Program Plan (CPP)

An Applicant may choose³ to develop a Certification Program Plan (CPP) to support a Project efficiently achieve aerodrome certification. A CPP is a formal agreement between the Applicant and the Authority on how to achieve certification and helps support the timely completion of the project's certification activity.

See *Factsheet – Aerodrome Certification Program Plan* for further information.

Define an Authority-agreed Certification Basis

To achieve an Aerodrome Certificate, an Applicant must demonstrate compliance to design requirements that the Authority agrees are needed to support safe flight operations at the aerodrome. These design requirements are captured within an aerodromes CB⁴.

A CB comprises of:

- applicable design requirements prescribed in the relevant chapter of Section 6 of the ADRM;
- any tailoring to the above design requirements to meet an aerodrome's operating intent; and
- any additional technical requirements that are needed to address unique issues beyond the scope of design requirements in Section 6 of the ADRM.

See <u>Factsheet – Aerodrome Design Requirements and Certification Basis</u> for information on developing and tailoring a CB.

Define Operating Intent

Authority Agreement (CB)

² Similar documents known to contain this information include, the Statement of Operating Intent and Usage (SOIU) and the Operating and Support Intent (OSI).

³ DASR.139 does not require the Applicant to develop a formal Certification Program Plan.

⁴ A CB scope is limited to those systems and functions that are necessary to achieve safe flight operations at the aerodrome.

Demonstrate that the aerodrome design and construction complies with the agreed CB

Once the CB has been established, and the design and construction of an aerodrome commenced or completed, the Applicant needs to demonstrate, through the production of evidence, that the design and construction of the aerodrome meets the agreed CB.

Compliance demonstration evidence must be available for the Authority to inspect (on a nonexhaustive basis) to provide independent assurance that the evidence is suitable, and that the evidence demonstrates compliance to the agreed CB requirements.

Where an Applicant is unable to demonstrate compliance to a CB requirement, the Applicant must pursue approval for tailoring the CB by submitting a Military Aerodrome Certificate Review Item (MACRI) form. A MACRI is used to assess non-compliances in the design and construction of the aerodrome and capture approved changes in applicable design requirements. Where risk management is required to address shortfalls in compliance, the Aerodrome Operator must take the necessary steps to ensure any risks are eliminated so far as is reasonably practicable (SFARP) or otherwise minimised SFARP following Defences 7-Step Safety Risk Management (SRM) process. The DASA has developed an Aerodrome Issue Paper (ADIP) form to support application of the Defence 7-Step SRM process. To document the risk management an Aerodrome Operator may use an ADIP, or other equivalent/suitable documentation.

See <u>Factsheet – Aerodrome Compliance Demonstration and Declaration</u>, <u>Factsheet – Military</u> <u>Aerodrome Certification Review Items</u> and <u>Factsheet – Aerodrome Issue Paper</u>.

Declare that the aerodrome design and construction complies with the agreed CB

When all MACRIs have been approved and all compliance demonstration evidence has been developed, the Applicant is in a position to make a declaration that the design and construction of the aerodrome entirely meets the requirements of the CB. The declaration can be made as part of the application for an Aerodrome Certificate, for which a DASA form has been developed, or via another means (which could be formally agreed in the CPP).

See Factsheet – Aerodrome Compliance Demonstration and Declaration for further information.

Implement arrangements to support continued aerodrome compliance with the CB

Over the life of the aerodrome, updates or modifications may change the certified configuration of the aerodrome. Similarly, during the life of the aerodrome, latent defects may also be identified which can impact the certified configuration. Consequently new compliance evidence may need to be developed to maintain the validity of the aerodrome certification.

To support the continued compliance of an aerodrome to the CB, so the safe design of the aerodrome will be retained throughout its service life, arrangements must exist that:

- Retain all relevant design information, drawings and test reports; including inspection records for the aerodrome;
- Manage the configuration of the aerodrome design; and
- Collect, investigate and analyse reports of and information related to failures, malfunctions, defects or other occurrences which might adversely affect safe operation of the aerodrome.

Whilst these arrangements are to be in place to achieve aerodrome certification, implementation and monitoring of these systems and procedures and implementing corrective action for CB compliance is the responsibility of the Aerodrome Operator.

See Factsheet - Aerodrome Continued Compliance for further information.

Provide design information to support continuing safe operation of the aerodrome

Maintaining an aerodrome's certified configuration relies on scheduled maintenance, inspections, processes and procedures. As a prerequisite for certification, an Applicant must have available design information that describes required scheduled maintenance tasks and their frequency of completion, descriptive data and accomplishment instructions that enable development of inspections, processes, and procedures necessary to continually support safe flight operations at the aerodrome. This enables the Aerodrome Operator to ensure the aerodrome is maintained in the required condition.

Continued and Continuing Arrangements

Applying to DASA for an Aerodrome Certificate

An application to DASA for an aerodrome certificate should use DASA Form – Application for Aerodrome Certificate. The form along with the supporting documentation should be submitted via the DASA Aerodromes Group Mailbox for approval.

The DASA will be available to support the Applicant throughout the certification process and provide guidance and feedback where needed. This will reduce the likelihood of an application being incomplete at the time of submission. On review of the application and supporting evidence, the DASA will be able to award an aerodrome certificate.

Maintain Aerodrome Certification

An aerodrome certificate is awarded for a particular aerodrome configuration that has been demonstrated to comply with the Authority-Agreed CB.

Where a change to the aerodrome design (and therefore configuration) may have an appreciable safety effect on flight operations, the aerodrome certificate may be invalidated (per GM to DASR.139.B). If so, an abbreviated certification program, applying some or all of the steps in this Factsheet, will be required. The program will focus on the changes to the certified design, and the complexity of the program will be influenced by whether the design changes:

- Will still maintain compliance to the extant CB. In this case, re-certification is likely to only
 require compliance to the CB be demonstrated and declared prior to application; or
- Will not maintain compliance to the extant CB. In this case, re-certification will require new or modified CB requirements to be approved prior to demonstrating and declaring compliance to the CB.

The application of the certification process to engineering changes is outlined in <u>Factsheet –</u> <u>Changes to Aerodrome Certification</u>.

Significant failures in the maintenance of an aerodrome could conceivably result in the Authority revoking the aerodrome certificate. Normally, however, this would be preceded by the Authority making findings against the Aerodrome Operator and instigating enforcement actions.

ESSENTIAL INFORMATION

- AC 004/2020: <u>https://www.defence.gov.au/DASP/Docs/DASR-Documents/AA-Circulars/AdvisoryCircular004_2020-</u> <u>Transition-to-DASR-139-Aerodromes.pdf</u>
- DASR.139 Regulations: <u>https://www.defence.gov.au/DASP/Docs/Manuals/8000-011/DASRWeb/index.htm#15303.htm</u>
- ADRM, Section 6: <u>https://www.defence.gov.au/DASP/Docs/Manuals/7001054/ADRMWeb/index.htm#25288.htm</u>
- DASA Aerodromes Group Mailbox: <u>dasa.aerodromes@defence.gov.au</u>

Maintain Certification