



Australian Government
Department of Defence



Defence Aviation Safety Authority

ADVISORY CIRCULAR

AC 002/2018

APPLICATION FOR MILITARY TYPE CERTIFICATES AND MAJOR DESIGN CHANGES

U8596173

v1.0 – 24 September 2018

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:

- Continuing Airworthiness Management Organisations (CAMO) or CAM service provider organisations.
- Acquisition Project Offices applying for a type certificate.
- Design organisations developing major design changes within the DASR environment.
- Military Type Certificate holder organisations (and supporting design organisations).

Purpose

The purpose of this Advisory Circular (AC) is to provide guidance on initial airworthiness regulatory provisions related to applying for and holding DASA issued Military Type Certificates (MTC) or Supplemental Type Certificates (MSTC), and applications for major changes to the type-certificate. The guidance includes leverage of the DASR recognition framework and its interaction with the application for, and use of, design product.

Further information

For further information on this AC, contact: [DAVREG-DASA](#).

Status

This AC will remain current until cancelled by DASA.

| Version | Date Approved | Approved By | Details |
|---------|---------------|-------------|-----------------|
| 1.0 | Sep 2018 | DG DASA | Initial release |

Contents

| | |
|--|-----------|
| Audience | i |
| Purpose | i |
| Further information | i |
| Status..... | ii |
| 1 Reference material | 1 |
| 1.1 Acronyms..... | 1 |
| 1.2 Definitions..... | 2 |
| 1.3 References | 2 |
| 1.4 DASR Forms and Templates | 2 |
| 2 Introduction | 3 |
| 3 Type Certificate and Major Changes to Type Certificate | 4 |
| 4 Application Process..... | 6 |
| 5 Apply for a Type Certificate or Major Change to a Type-design | 7 |
| 6 Initialisation and Conduct of the Certification Programme | 11 |
| 7 Approval and DASA Outputs | 19 |

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 |
| AwIP | Airworthiness Issue Paper |
| AwL | Airworthiness Limitation |
| CAMO | Continuing Airworthiness Management Organisation |
| CP | Certification Programme |
| CPP | Certification Programme Plan |
| CRE | Configuration, Role & Environment |
| DAS | Design Assurance System |
| DASA | Defence Aviation Safety Authority |
| DASR | Defence Aviation Safety Regulations |
| DO | Design Organisation |
| ICA | Instruction for Continuing Airworthiness |
| GM | Guidance Material |
| MAO | Military Air Operator |
| MCRI | Military Certification Review Item |
| MDOA | Military Design Organisation Approval |
| MTC | Military Type Certificate |
| MRTC | Military Restricted Type Certificate |
| MSTC | Military Supplemental Type Certificate |
| NAA | National Airworthiness Authority |
| MAA | Military Airworthiness Authority |
| OEM | Original Equipment Manufacturer |
| PO | Project Office |
| TC | Type Certificate |
| TCAE | Type Continued Airworthiness Exposition |
| TCB | Type Certification Basis |

1.2 Definitions

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

| Term | Definition |
|------|------------|
| Nil | Nil |

1.3 References

1.3.1 AAP 8000.011 - Defence Aviation Safety Regulations

1.4 DASR Forms and templates

1.4.1 DASR Forms:

- a. Form 30 - *Application For Type Certificate / Restricted Type Certificate*. Not used. Applicants to seek advice from DASA.
- b. [Form 31 - Notification for Major Change / Major Repair Design](#). Based on EASA form. Use of this form is optional.
- c. [Form 31a - Application for Approval of Major Change to Type Design](#). Currently the only DASR form available for use in applying for a major change to type-design or MSTC approval.
- d. [Form 31b - Application for Approval of Major Repair Design](#). Currently the only DASR form available for use in applying for a major repair design approval.
- e. Form 33 - *Application for Approval of Supplemental Type Certificate*. Not released for DASR. Form 31a to be used instead.

1.4.2 DASR Templates:

- a. [Certification Programme Plan \(Full\) template](#). A template for use when a full CPP required.
- b. Certification Programme Plan (Simplified) template. No individual template supplied. Tailoring of full template as required.
- c. [Military Certification Review Item \(MCRI\) template](#).
- d. [Airworthiness Issue Paper](#) template.

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

2 Introduction

- 2.1 Defence adopted the Defence Aviation Safety Regulation (DASR), based on the civilian European Aviation Safety Agency regulations, with added provisions to support military operational flexibility and organisational structures, in 2016 to align with an emerging global convention in military airworthiness. Alignment with this global convention streamlines the process of accessing products and services from other airworthiness authorities' frameworks through a concept known as 'recognition'. Recognition enables Defence to leverage other authorities' expertise, reduces costs by avoiding duplication of work, simplifies access to global supply chains and promotes international collaboration in the development of aviation safety practices.
- 2.2 Recognition is an acknowledgement by the Defence Aviation Safety Authority (DASA) that a Military Airworthiness Authority (MAA) or civil National Airworthiness Authority (NAA) applies a suitable safety assurance framework. In establishing recognition, DASA assesses many aspects of the other authority's framework including its legal or policy basis, regulations, authority competence and oversight strategy. Through the recognition process, DASA identifies differences between its own framework and that applied by the other authority. These differences define some of the steps that the regulated community must take to ensure safety when accessing products and services from the other authority's framework.
- 2.3 Unlike civil aviation and some military aviation regulations, the DASR does not have a legislative basis. This means that DASA must be the certifying body for all Defence-registered aircraft and places constraints on how Defence can apply certification products and related information from other airworthiness frameworks. In such instances, recognition provisions can be exploited to assist the development of information required by DASA to undertake certification.

3 Type Certificates and Major Changes to Type Certificate

- 3.1 The DASA Military Type Certificates (MTC), Military Restricted Type Certificates (MRTC), Military Supplemental Type Certificates (MSTC) and major design changes and repairs¹ are all issued by DASA and held by government 'MTC holder' organisations². This arrangement necessitates specific considerations when applying for an MTC/MRTC or for major changes to that type-design.
- 3.2 Applications for MTC / MRTC and for changes to the associated type-design are controlled through the DASR 21 *Initial Airworthiness* requirements, and specifically within three Subparts that define the approval pathway:
- Subpart B Military Type Certificate and Military Restricted Type Certificates. Controls applications for the issue of MTC and MRTC.
 - Subpart D Changes to Military Type-Certificates and Military Restricted Type Certificates. Controls how all major and minor changes to the type-design must be approved and issued, and
 - Subpart E Military Supplemental Type Certificates. Controls how changes to the type-design via an MSTC occur.
- 3.3 This Advisory Circular explains Defence arrangements for applicants seeking an MTC or approval of major changes to the type-certificate, and provides examples that articulate how applicants can access those arrangements. Within the Defence context there are three broad scenarios that cover different design development circumstances expected within the Defence environment, and which may affect the application process. These scenarios are defined only for use within the AC as an aid to explanation, rather than as strict application approaches. Where required, this AC highlights how the application process varies under these scenarios:
- **Scenario 1 – Type-design / major change developed by DASR 21J Military Design Organisation (MDO).** An application for approval of an MTC / major change to the type-design developed by an approved DASR 21J design organisation.
 - **Scenario 2 – Type-design / major change based on a recognised NAA/MAA Certification.** An application for approval of an MTC / major change approval based on a design certified by a NAA/MAA whose certification is recognised by DASA.

¹ Application and approval of major repairs will be addressed in a separate Advisory Circular

² See Advisory Circular 006/2017 *Military Type Certificate Holders*

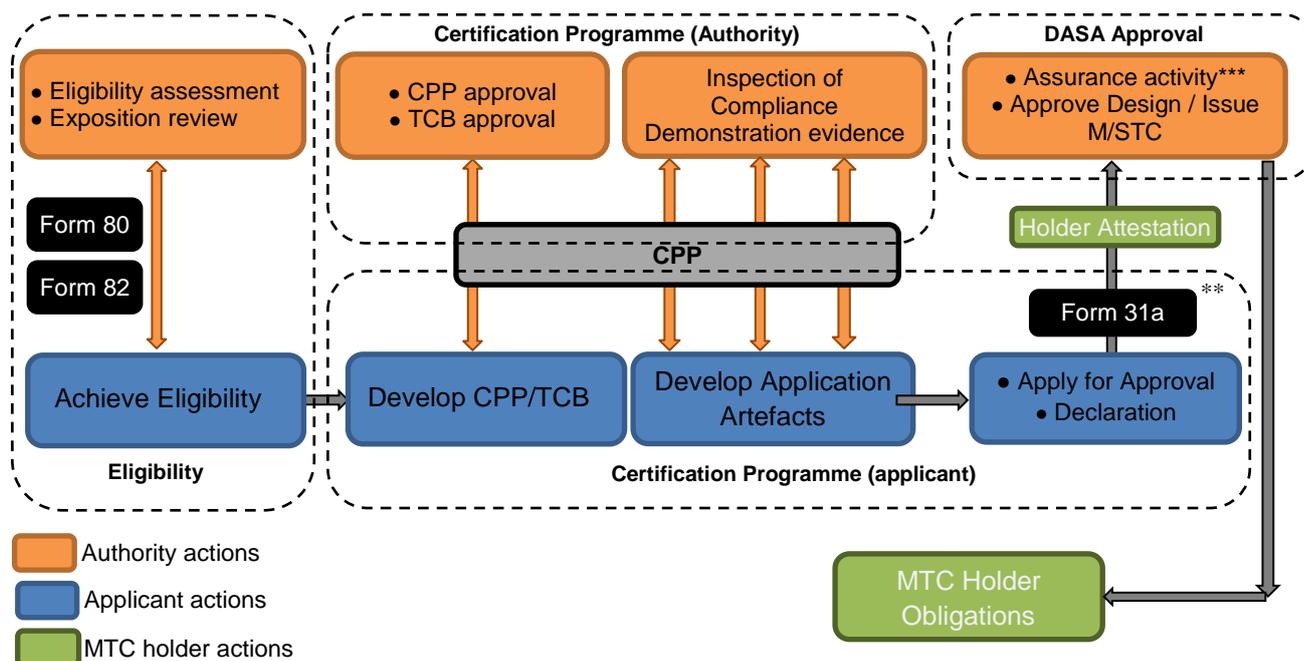
- **Scenario 3 – Type-design / major change developed using a design system that produces designs for approval by a recognised NAA/MAA.** An application for approval of an MTC / major change approval based on a design, which has not been certified, but was developed using a design system (organisation, people, processes, data, and tools) external to the DASR, and where that system is used to produce designs for certification by a recognised NAA/MAA.

4 Application Process

4.1 Regardless of the application scenario or the DASR 21 Subpart under which the application is made, there is a generic process for seeking an MTC/MRTC or major design change (inclusive of MSTC³). Figure 1 illustrates four key stages of the application and approval process, these being:

- DASA confirmation of, and planning for, DASA oversight of ongoing applicant eligibility;
- approval and conduct of the certification programme;
- Authority involvement in the certification program; and
- declarations and submission for Authority approval.

4.2 The applicant and Authority involvement in the certification programme occurs concurrently and requires ongoing engagement between the two parties. In some applications, the generic process may be abbreviated; this AC describes where and how such abbreviation may occur.



** Format to apply for issue of an MTC will be agreed to by the applicant and DASA during the Project
 *** Includes confirmation of ongoing validity of eligibility demonstration (i.e. via DASA oversight and surveillance)

Figure 1. Generic application process

³ Given that all MTC and approval of major change to the type-design are issued to an MTC holder, a decision to seek issue of an MSTC may consider whether the MSTC will be used to create a sub-fleet that will operate within a different CRE than the base fleet aircraft, or for commercial reasons, such as: the design organisation developing the MSTC design is different to that of the prime design organisation providing MTC holder functions; or the prime design organisation wishes to create a stand-alone modification for commercial reasons. Applicants considering issue of a MSTC should apply via a Form 31a, with the decision to issue a major change as an MSTC to be made by the Authority in conjunction with the applicant during the certification planning process.

5 Eligibility to apply for a type certificate or major change to a type-design

- 5.1 Applicant eligibility requirements exist to control how designs are developed and presented to the Authority for review and inspection. These ensure that the Authority has visibility of the applicant's organisation, understands and has confidence in the generation of compliance evidence and artefacts and how the declaration of compliance is made, and, where applicable, has confidence in the applicant's ability to fulfil the obligations associated with holding the MTC or major design change approval. As such, applicants for MTC or major design changes must meet eligibility criteria as defined within the relevant DASR 21 Subpart (B, D or E) and therefore will either be a 21J MDO, an MTC holder organisation or a Project Office.
- 5.2 **DASR 21J MDO.** Holding a DASR 21J approval provides an organisation with the eligibility to apply directly to DASA for an MTC⁴ (via DASR 21 Subpart B) or for a MSTC (via Subpart E). An organisation attains a DASR 21 MDO Approval by submitting a Form 80 *Application for Military Design Organisation Approval* (MDOA) for DASA consideration, or a Form 82 *Application for Significant Changes to Design Organisation Approval* where an MDOA is already held but scope change is needed.
- 5.3 **MTC holder organisation.** The MTC holder is expected to be the applicant for all major changes processed via DASR 21 Subpart D to its relevant type-design. The MTC holder organisation may also choose to be an applicant for MSTC (via DASR 21 Subpart E). The MTC holder organisation will be a government organisation, e.g. Capability Acquisition and Sustainment Group (CASG), and achieves eligibility through the DASR derogation provisions for government organisations⁵.
- 5.4 To be issued an MTC/MRTC by DASA, a government organisation, usually a CASG System Program Office (SPO), develops a Type Continued-Airworthiness Exposition (TCAE) for DASA review. The TCAE details SPO arrangements with a design organisation, or organisations, that have access to the type-design data and through which the provision of holder obligation functions occur, including the ability to apply for major changes in accordance

⁴ In theory this is true, however given the scope of the Australian aviation industry, development and certification of a new aircraft wholly under a DASR 21J MDO is unlikely. DASA expects most applicants for new aircraft MTC to be Defence Project Offices.

⁵ DASR 21.A.14(c) (for MTC) and DASR 21.A.112B(c) (for MSTC) provide derogation that allows for government organisations to be eligible as an applicant to hold an MTC or MSTC. That clause requires the government organisation to establish arrangements with a design organisation that has access to the relevant type-design data, with those arrangements supporting compliance with the requirements of DASR 21 Subpart J and MTC holder obligations.

with DASR 21 Subpart D or E. Full details on holder arrangements are available in Advisory Circular 006/2017 *Military Type Certificate Holders*.

- 5.5 Any design organisation engaged to support MTC holder eligibility, through demonstration of meeting 21J requirements (or equivalent) and holder obligations, may also act as an applicant under Subpart D or E where the TCAE arrangements and scope allow. In this case the Design Organisation (DO) is able to directly engage DASA for the initialisation and certification activities as described in paragraph 6.
- 5.6 During an aircraft's operation and sustainment phase, additional design organisations may be engaged by the MTC holder to support new modifications or reflect expanding design support agreements. In these cases the MTC holder should engage DASA to inform DASA of the proposed change and define additional oversight requirements to support the change.
- 5.7 **Defence Project Office.** A Project Office (PO) is likely to be the applicant for submissions seeking issue of an MTC or MRTC to support acquisition of a new aircraft, or as an applicant for a MSTC or change to type-design for larger or more complex major modifications to an existing aircraft, such as for a mid-life upgrade program or significant capability upgrades. The PO will be a government organisation (e.g. CASG) that achieves eligibility through the DASR derogation provisions for government organisations.
- 5.8 Whether the PO is seeking issue of an MTC/MRTC for a new aircraft type, seeking an MSTC, or seeking a change to an existing MTC/MRTC, the PO is to initiate contact with DASA during the appropriate stage of the Capability Life Cycle (such as preceding, or early in, the Acquisition phase) to discuss how the DASR derogation provisions will be met for the intended acquisition program.
- 5.9 The eligibility assessment will focus on the arrangement between the Project Office and supporting Design Organisation(s), and address how the arrangements comply with the requirements of DASR 21 Subpart J MDOA. As the PO scope of responsibility is usually limited to a single application and does not include the through-life holder responsibilities, the PO eligibility information is not required to be delivered as a single document and can instead be contained within Project or Acquisition documentation. The documentation requires review by DASA prior to the Project Office becoming eligible to act as an applicant.
- 5.10 **Eligibility assessment variations.** Eligibility assessments may vary depending upon the scenario(s)⁶ relevant to the application.
- 5.10.1 **Scenario 1.** No additional variation.

⁶ See scenarios 1, 2 & 3 defined in paragraph 3.3

- 5.10.2 **Scenario 2.** This guidance is relevant to a PO that expects to exclusively base their application upon an aircraft type-design that has been certified by a recognised NAA/MAA. In this specific circumstance⁷, the PO, in conjunction with any associated design organisation(s), gains eligibility by demonstrating its ability to conduct the required certification programme activities (develop Certification Programme Plan (CPP), conduct applicability assessment against Defence context, develop the Defence Type Certification Basis (TCB), and provide a declaration of compliance), rather than demonstrate full adherence to the DASR 21 Subpart J requirements.
- 5.10.3 **Scenario 3.** This guidance is relevant to MTC holders and POs leveraging non-DASR design organisations in developing designs for DASA certification. In these circumstances the DASA recognition framework must be leveraged by the government organisation to assist in demonstrating to DASA that the arrangements with the external DO provides an acceptable equivalence to the DASR 21 Subpart J requirements. The MTC holder or PO is to address the following expectations in their respective eligibility submissions:
- e. Confirm that the external design organisation (DO) is normally oversighted by a NAA/MAA recognised by DASA⁸,
 - f. Confirm that the DO has appropriate technical scope and expertise for the intended design(s),
 - g. Confirm that the systems, processes and personnel used in developing other major designs for certification by the parent NAA/MAA will be used in the design development or holder activities associated with the ADF design,
 - h. Confirm that the DO is able to provide an attestation of compliance against the Defence TCB for any provided design product
 - (i) In some circumstances, the PO or MTC holder may wish to allow the external DO to engage directly with DASA for Defence TCB agreement, development and conduct of the CCP, and provision of a declaration of compliance to the Defence TCB. In this case the eligibility documentation shall demonstrate that the external DO systems and process are sufficiently similar to the DASR 21J requirements to support such delegation.
 - i. Confirm any expected oversight by the DO's parent NAA/MAA is appropriate,

⁷ AMC to DASR 21.A.14(c) (for MTC) and DASR 21.A.112(c) for STC

⁸ The DO holds a Design Organisation approval from a recognised NAA/MAA or develops design for approval by a recognised NAA/NMAA. Recognition Certificates are available via the [DASA website](#).

- j. Confirm where applicable, arrangements for DASA oversight are in place, and
- k. Articulate how the recognition arrangements as per paragraph 5.10.3.c, 5.10.3.d and 5.10.3.e will be monitored and ensured during the design development and submission process⁹.

5.10.4 Activities to meet the eligibility requirements should be completed prior to engaging DASA for the initialisation and certification programme activities. Once eligibility has been established, unless key elements of the eligibility approval conditions have changed, and notwithstanding routine DASA oversight and surveillance activity, there is no requirement for re-assessment of eligibility for subsequent major change applications.

⁹ Retaining eligibility as an applicant relies on the ongoing monitoring of the external DO and culminates with the MTC holder or PO attesting to adherence to the expected recognition arrangements during the design and certification process (see paragraphs 6.11.3.1. and 6.11.3.2).

6 Initialisation and conduct of the Certification Programme

- 6.1 Prior to submission for DASR Subpart B, D or E approval via DASR Form 31a (or other arrangement for MTC issue), the applicant organisation engages DASA via the [type certification group mailbox](#) to determine the steps associated with the approach and conduct of certification. These activities involve engagement between the applicant and DASA and hence benefit from good communication between the two parties. The broad process steps and requirements are:
- 6.1.1 **Step 1.** Applicant development of the Certification Programme (CP). Two outcomes are achieved within this step:
- a. applicant development and DASA agreement of the Defence TCB for new aircraft acquisition or establishment of the certification basis for the design change¹⁰, and
 - b. formalisation of the approach to be taken in developing compliance demonstration evidence against the Defence TCB in a CCP and the expected Level of Involvement (LOI)¹¹ of DASA in inspecting the compliance demonstration evidence. The approval of the CPP includes final DASA approval of the Defence TCB.
- 6.1.2 **Step 2.** Conduct of activities identified within the CPP, including applicant development of the compliance demonstration evidence and DASA inspection of the compliance demonstration evidence as detailed in the CPP. Depending upon the design, DASA's inspection may occur over an extended duration and include on-site witness activities.
- 6.1.3 **Step 3.** Applicant raises Form 31a (or other arrangement for MTC issue) and provides a declaration of compliance to seek DASA approval. This form will usually be submitted at the end of the certification programme.
- 6.2 Table 1 below provides a summary of the expected activities along with the DASR Subpart 21 clauses aligned with those steps, while further detail are included in the following sub-paragraphs.

¹⁰ DASR 21.A.101 GM *Establishing the type-certification basis of changed aeronautical products*, which requires TCB reviewed for currency to contemporary standards for modifications to existing MTC or MSTC.

¹¹ GM2 to DASR 21.A.33 *Investigation and tests (AUS)*

Table 1. Outputs and DASR clauses associated with the certification programme

| Step | Outputs | Relevant DASR clauses |
|--|---|---|
| <p>1. Certification Programme</p> <p>a. Applicant development and DASA approval of the Type Certification Basis;</p> <p>b. Applicant development and DASA approval of the Certification Programme Plan</p> | <ul style="list-style-type: none"> • TCB • Airworthiness Issue Papers • MCRI • CPP • Leverage of prior certifications | <p>For MTC 21.A.16A <i>Airworthiness codes</i> 21.A.16B <i>Special conditions</i> 21.A.17A <i>Type-certification basis</i> 21.A.20(b) <i>Compliance with the type-certification basis</i></p> <p>For Major Change / MSTC 21.A.101 <i>Designation of applicable airworthiness code</i> AMC 21.A.97 <i>Compliance demonstration process for 'MAJOR' changes</i></p> |
| <p>2. Generate design and compliance demonstration evidence</p> | <ul style="list-style-type: none"> • Compliance demonstration evidence • Airworthiness Issue Papers • MCRI • Conduct of Authority inspection activities | <p>For MTC 21.A.20 <i>Compliance with the type-certification basis...</i> a. <i>(provide DAA with evidence of compliance)</i> c. <i>(record justification of compliance)</i> GM 21.A.21(c)(2) <i>(MCRI)</i> 21.A.33 <i>Investigation and tests</i> 21.A. 35 <i>Flight Tests</i></p> <p>For Major change / MSTC 21.A.97 <i>Compliance demonstration process for 'MAJOR' changes...</i> a. <i>(provide DAA with evidence of compliance)</i> c. <i>(record justification of compliance)</i> 21.A.33 & 21.A35</p> |
| <p>3. Submission by applicant and approval by DASA</p> | <ul style="list-style-type: none"> • MTC / MRTC (plus TCDS) • MSTC (plus supplemental TCDS) • Major change approval (signed Form 31a) | <p>For MTC 21.A.21 <i>Issue of type-certificate</i> 21.A.23 <i>Issue of a restricted type-certificate</i></p> <p>For Major change 21.A.103 <i>Issue of approval</i></p> <p>For MSTC 21.A.115 <i>Issue of Supplemental Type-certificate</i></p> |

6.3 **Step 1a: Development of Type Certification Basis or certification basis for design changes (change product).** The TCB for a new Defence aircraft type should be developed and agreed as early as practicable in the aircraft acquisition life-cycle. Development of a Defence TCB is a joint activity between the applicant and DASA and is guided by AAP 7001.054 *ADF Design Requirements Manual (ADRM)*. In most cases the ADRM allows for the Defence TCB for a new aircraft type to be based on the recognised

design standards used by the parent NAA/MAA under which the aircraft was initially designed and certified.

- 6.4 This step may also result in tailoring of the ADRM primary certification code (for MTC) to address a range of differences, such as Configuration, Role & Environment (CRE) deviations, special conditions, new means of compliance or any other certification issues that require clarification or interpretation. Tailoring may arise from potential conditions, such as:
- 6.4.1 developing an equivalent safety finding argument for tailoring of the Defence TCB where it is not possible to certify against an accepted standard, and agreement has been reached to provide a safety argument to demonstrate that an equivalent level of safety has been achieved,
 - 6.4.2 developing special conditions for a modification where the primary certification code doesn't cover the additional feature(s),
 - 6.4.3 electing to comply with later standards, usually at the request of the applicant,
 - 6.4.4 developing new interpretative material or acceptable means of compliance for Defence TCB elements, and
 - 6.4.5 documenting a decision to vary from the Defence TCB primary certification code, where compliance would adversely affect Defence capability; this is considered an exception. The exception is agreed by the MTC Holder and Command via an Airworthiness Issue Paper (AwIP)¹².
- 6.5 Where tailoring is required the applicant shall draft a Military Certification Review Item (MCRI) using the [MCRI template](#) and submit to DASA as part of the CPP development and approval activity. Where required, the applicant shall also raise and staff relevant AwIP(s) using the [AwIP template](#).
- 6.6 For changes to the type-design, in most cases the Defence TCB will be used, however, where the proposed change to the type-design is considered to be significant in accordance with DASR 21.A.101 – *Designation of applicable Airworthiness codes and environmental protection requirements (where applicable)*, or other relevant factors require, the adoption of later standards or other special conditions may be required.
- 6.7 **Step 1b: Development of Certification Programme Plan.** There are three solutions acceptable to DASA to document the certification approach, which are:

¹² The Exception MCRI departs from EMACC wording, although the intent remains unchanged. The unique wording ensures the DASRs remain entirely compatible with Australia's WHS Act. In the DASR context, a decision to tailor a standard (and therefore affect the level of safety of the aircraft), must be a judicious Command decision based on capability requirements. An underpinning AwIP will normally be required to document Command's judicious decision.

- 6.7.1 **Full CPP.** For Major changes not able to be processed under simplified CPP arrangements, or as determined by DASA, a full CPP must be developed by the applicant with appropriate DASA consultation in accordance with AMC to DASR 21.A.20(b). If there is uncertainty in the design complexity or compliance demonstration activities, a full CPP is likely to be required.
- 6.7.2 **Simplified CPP.** A stand-alone simplified CPP will suffice for communicating necessary CP information to DASA when compliance demonstration activities are not expected to be long or complex, and DASA involvement will be limited and straight-forward (i.e. the MDO is experienced in the technical discipline(s), the design will meet the existing Defence TCB with no MCRI more complex than a straight-forward equivalent safety finding assessment, limited design disciplines are involved, no part of the design is considered novel and the Means of Compliance will be straight-forward).
- 6.7.3 Where the applicant expects a specific type of Major change that may require a simplified or full CPP to occur on an ongoing or recurring basis (e.g. some Airworthiness Limitation changes (AwL), rolling software block upgrades, etc) the applicant may seek to establish a standing agreement with DASA. A 'standing CPP' allows an applicant for major changes within agreed parameters to submit a Form 31a and associated evidence to DASA without the need to raise a CPP on each occasion.
- 6.7.4 **No Certification Programme Plan.** A pre-assumed or no CPP may be applicable where the applicant reasonably expects no DASA involvement would be required (i.e. no MCRIs are expected, DASA inspection of Compliance Demonstration Evidence is not reasonably expected, the design cannot be considered novel, or the scope of the design is limited and no MPTFs will be required)¹³.
- a. In the above case the applicant submits a Form 31a and substantiating data addressing each requirement of AMC to DASR 21.A.97 for a simplified CP. Should an applicant proceed with a pre-assumed CPP; the applicant is retaining a schedule risk. If, upon receipt of the Form 31a and substantiating data, the DASA identifies elements that require further DASA oversight, approval of the major change may be delayed.
- 6.8 **Step 2: Conduct of the CP.** This step represents applicant conduct of the CP activities, generation of compliance documentation¹⁴, and DASA conduct of inspection activities as detailed within the CPP.

¹³ For example, the majority of changes to AwLs are unlikely to require a CPP to be raised. Applicants for AwL change approvals are encouraged to seek advice from DAVENG for airframe / propulsion system structural system changes and DAVCERT for all other issues.

¹⁴ Required compliance documentation is defined in DASR 21.A.97(c) for MTC/MRTC applications, and in DASR 21.A.97 for changes to the type design / MSTC.

- 6.9 Where difficulty arises in meeting the agreed CP activities or outcomes, engagement with DASA as early as practicable is recommended. This phase may identify issues in compliance demonstration evidence against the agreed Defence TCB that require equivalent safety finding arguments, processing of exceptions underpinned by AwIP, or introducing new interpretations or means of compliance. In these cases MCRI, and AwIP as required, shall be raised and submitted by the applicant for DASA consideration.
- 6.10 **Step 3: Submission and declaration.** Following completion of the CP, the applicant will be in a position to formally seek DASA approval of the MTC or design change. The application format for seeking issue of an MTC should be defined during development of the CPP. A Form 31a is to be raised for approval of major changes to the MTC or issue of MSTC. The Form 31a application method includes a field for signatures as follows:
- 6.10.1 **Declaration of compliance**¹⁵. A declaration by the applicant that it has demonstrated compliance with all applicable type-certification basis and environmental protection requirements (where applicable), according to the certification programme, and
- 6.10.2 **MTC holder signature**¹⁶. The MTC holder signature represents the holder's concurrence for the type-design to be changed and confirms that suitable arrangements for meeting the ongoing holder obligations have been established. The holder attestation is distinct to the declaration made by the applicant, which is focussed on the compliance of the design to the type certification basis.
- 6.11 **Certification Programme and submission variations.** Processing an application under the three scenarios may affect requirements for the initiation and certification programme activities.
- 6.11.1 **Scenario 1.** An MTC holder is eligible to apply for a change to the MTC via DASR Subpart D. Where a supporting Design organisation (identified within the TCAE or other suitable documentation) is a DASR 21J MDO and is developing the design, the MDO may act as the applicant and engage directly with DASA in all of the initiation and certification steps, and may raise and submit the Form 31a, including signing the applicant declaration for a subpart D application.
- 6.11.2 **Scenario 2.** As stated in the introduction, in the absence of a legal framework, DASA does not recognise or accept external NAA/MAA major design certifications for direct consumption by the regulated community. Instead, DASA issues all MTC and approvals of major design changes for

¹⁵ As required by DASR 21.A.20.d for MTC, and DASR 21.A.97.a.3 for changes to the type-design and MSTC.

¹⁶ A separate MTC holder signature has been added to account for the DASA stipulated MTC holder arrangements (See Advisory Circular 006/2017 *Military Type Certificate Holders*)

ADF aircraft, and hence recognised NAA/MAA certificates / major design approvals may only be leveraged as inputs to the DASA MTCs and major change approval process. To facilitate that leverage, the DASR allows for certified designs from recognised NAA/MAA to provide the applicant with relief from developing compliance demonstration evidence¹⁷ for some or all elements of the applicable Defence TCB. Where an applicant wishes to use a design that has already been certified by another NAA/MAA to support a submission for DASA approval, the process to do so is reflected across a number of the Certification Programme steps:

- a. **Step 1a:** Establishment of certification basis for changed product. No change to the generic process.
- b. **Step 1b: Development of the CPP.** CPP content includes the means of compliance for all Defence TCB elements (for MTC issue) or the elements affected by a design change. Where a prior certified design is to be leveraged, the CPP shall include the applicant confirmation that the certifying NAA/MAA is recognised by DASA and that design is within the scope of, and meets any caveats and conditions, in the relevant DASA recognition certificate for that NAA/MAA. The CPP shall also identify the Defence TCB elements against which the prior certification is to be applied, the sought extent of relief from developing compliance demonstration evidence, and the applicant's substantiation of the applicability of the external design to the Defence TCB and CRE.
- c. A prior certification provided by a NAA/MAA may or may not always be entirely applicable to the Defence TCB or CRE. To substantiate relief from developing compliance demonstration evidence the applicant must substantiate that the external certified design is applicable to the Defence context by:
 - (i) Assessing the certification standards of the prior certified product for alignment with the Defence TCB¹⁸,
 - (ii) Assessing the CRE assumed for the certified design for applicability to the Defence CRE, and
 - (iii) Assessing any treated risks that require further elimination or minimisation So Far as Reasonably Practicable (SFARP).

¹⁷ See AMC 21.A.20 *Compliance with the type-certification basis and environmental protection requirements (where applicable) (AUS)*

¹⁸ For certain recognised MAA full insight into the certification standards of the prior certified design may not be possible. In these circumstances the CPP shall include an agreed assessment approach to ensure design product alignment with the Defence TCB.

- d. Where shortfalls in the above assessments are identified they are to be addressed, with the appropriate treatment actions reflected in the CPP. Possible treatments include:
- (i) Sourcing additional and relevant existing evidence from the certifying NAA/MAA or design originator,
 - (ii) Developing additional evidence, which may include additional compliance demonstration evidence against affected Defence TCB,
 - (iii) Developing a change to the design (either configuration or ICA), or
 - (iv) Raising an MCRI, most likely an equivalent safety finding or Exception, for DASA approval.
- e. **Step 2: Conduct of Certification Programme.** While assessment of the external certified design to support relief is expected to occur during the CPP development and approval step, the information available at that time, or information gained during development of the design, may initiate a revision of the assessment and potentially result in amendment to the level or scope of relief able to be claimed. Where re-assessment occurs, paragraphs 6.11.2.c and 6.11.2.d should be followed, including update of the CPP to reflect any change.
- f. **Step 3: Submission and Declaration.** The DASR declaration of compliance for MTC/MRTC, MSTC and major changes to the type-design all require the applicant to declare that it has demonstrated compliance with applicable Defence TCB and environmental protection requirements (where applicable), according to the CP. Where an external certified design has been leveraged to relieve the applicant from developing compliance demonstration evidence, the basis of that declaration is the completion of the assessment activities, as detailed in the CPP, that show the external certified design is applicable to the Defence TCB and CRE.

6.11.3 **Scenario 3.** During a certification programme where the MTC holder or PO is leveraging an external design organisation to develop a design for DASA certification, the variation occurs across all steps of the CP activities through two key avenues:

- a. **Continued oversight.** During the certification programme the holder or PO shall provide oversight of the external DO to:
- (i) Ensure that the systems, processes and personnel used by the DO in developing the major designs for certification by DASA were the same as those used in design development for their parent NAA/MAA certification, and

- (ii) When required, ensure that the DO signature provides an attestation of compliance against the Defence TCB for any provided design product.

- b. In these circumstances, the submission of the Form 31a (or other documents for MTC issue) to DASA must be accompanied by a minute from the PO or MTC holder attesting to the satisfactory execution of the above activities.

- c. **DO direct engagement with DASA.** Where agreed within the eligibility assessment, the external DO may act as the applicant and engage directly with DASA in the initiation and certification steps; i.e. in developing the TCB and CPP, conducting the CP activities, and raising and submitting the Form 31a. For DO, where their parent NAA/MAA regulatory environment aligns closely with DASA's, i.e. EASA, CASA or EMAR based MAA, the external DO may also include signing the applicant declaration. Where the external DO is engaged by the MTC holder, the DO may act as the applicant for subpart D applications where agreed to by the holder.

7 Approval and DASA Outputs

- 7.1 DASA receipt of a Form 31a (or other agreed format for MTC/MRTC) should signify the completion of a period of engagement between the applicant and DASA during which the certification activities agreed within the CPP have been undertaken, including satisfactory DASA inspection of compliance demonstration evidence and processing of any Airworthiness Issue Papers and MCRI. Upon receipt of the application DASA assures itself that agreed CPP activities have been completed, and if assured:
- 7.1.1 **For MTC/MRTC applications.** DASA provides relevant input into the associated Airworthiness Board (AwB), and following a subsequent decision from the Defence Aviation Authority (Defence AA), issues to the designated MTC holder the MTC/MRTC along with an approved Type Certification Data Sheet (TCDS).
- 7.1.2 **For changes to the type-design.** DASA issues, to the MTC holder, a signed Form 31a for major changes under DASR 21 Subpart D (which may include updated TCDS if applicable). The MTC holder gains the holder obligations for the approval.
- 7.1.3 **For MSTC approved under DASR 21 Subpart E.** DASA issues, to the MTC holder, a MSTC for a modification, along with an approved supplemental TCDS¹⁹. The MTC holder gains the holder obligations for the MSTC.
- 7.1.4 **Airworthiness Boards.** The Authority convenes Airworthiness Boards to provide independent review regarding type-certification for:
- aircraft being introduced into service, and
 - major changes / MSTC designated by the Authority as requiring an AwB review prior to the MSTC being issued or major change being approved²⁰.

¹⁹ DASA issue of an MSTC is characterised by provision of a stand-alone MSTC certificate; supplemental TCDS, and supplemental ICA and manuals that can be identified and managed separately from the base MTC.

²⁰ The decision to convene an AwB for major changes and MSTC considers, amongst others, the complexity of the design change, extent to which the major change is unique to Defence, the significance of any identified airworthiness issues, and adequacy of design and continuing airworthiness arrangements.

- 7.1.5 Where an AwB is required, the Airworthiness Coordination and Policy Agency (ACPA – DASA) convenes these boards and establishes the supporting documentation prerequisites. Submission of documents to support an AwB are separate to the certification process outlined within this AC. Applicants should engage ACPA-DASA to ensure their AwB submission requirements are known and understood.

Original Signed

August 2018

Director General – Defence Aviation Safety Authority