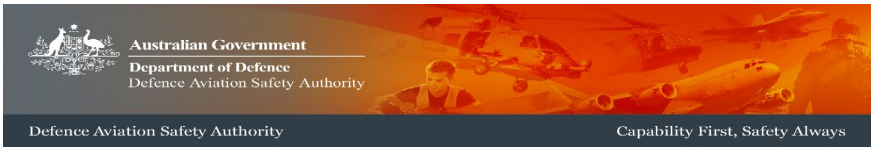


RECORD OF CHANGE – DASR RELEASE 27 FEB 2025

1. This document records all changes to the Defence Aviation Safety Regulation (DASR) introduced in the 27 February 2025 release. An overview of noteworthy changes is available in the Notification of Change (BP45450301).

2. An index of all changes, grouped by DASR part, is provided in Table 2 below. Each entry is hyperlinked to an Amendment Record that documents the rationale for the change, previous text and revised text.

3. Each change is classified as Major, Minor or Editorial according to its impact. Table 1 below provides classification definitions and identifies the colour coding used in Table 2.

4. The DASR Change Proposal (DCP) reference number associated with each change is provided for traceability. A single DCP may introduce several changes having similar effect and may affect multiple DASR parts. Any Notices of Proposed Amendment and associated Comment Response Documents issued by DASA are available on the DASA web site and are identified by the same DCP reference number.

5. Any revised text within the Initial and Continuing Airworthiness regulations that is unique to DASR, i.e. different to the base European Military Airworthiness Requirements, is highlighted green.

6. This document is intended to be accessed in electronic format using bookmarks and hyperlinks for navigation; the page numbers applied to Amendment Records do not reflect page numbers within this compiled Record of Change.

Table 1. Change classifications and colour coding

Major	Introduces significant regulation change with a corresponding change to compliance requirements.
Minor	Improves the regulation but does not change the intent or impose new regulation.
Editorial	Applies changes such as corrections or updates to terminology.

Table 2. Index of changes

Short Title (DCP Reference)	Amendment Record	Change Classification	DASR Clause
General			
Remove DASR NDR.15 and incorporates its intent into DASR GR.27 (DCP 2023 – 031)		Major	DASR GR.27
Glossary update for inclusion of explosives related terminology (DCP 2024 – 017)		Minor	DASR Glossary
Changes to DASR Finding Level Definitions (DCP 2024 – 018)		Major	DASR GR.60
Alignment of defined term 'CRE' with DASPMAN Glossary (DCP 2024 - 019)		Editorial	DASR Glossary
DASR 21 – Aircraft Design, Production and Certification			
Amendement to GM 21.A.239 – Explosives in Design (DCP 2024-041)		Minor	GM 21.A.239
EASA 21 GM incorporation to GM 21.A.101 (DCP 2024-40)		Minor	GM 21.A.101
Implement Operaional Suitability Data (OSD) into DASR 21 (DCP 2024-035)		Major	Various clauses.
Introduction of DASR Part 21 Subpart C (DCP 2024 – 024)		Major	DASR Part 21 Subpart C

Defence Registration of Balloons and Warbirds (DCP 2024-025)		Major	DASR GR.15, 21.A.174(b) GR.25
DASR 66			
Review of Ambigius green text within AMC and GM of DASR 66 (DCP 2024 – 016)		Minor	Various
DASR 66.A.20 - GM Amendment (DCP 2024 - 032)		Minor	GM 66.A.20(a)2
DASR 145 – Requirements for Maintenance Organisations			
Accepted training for composite repairs (DCP 2024 -015)		Minor	AMC1 DASR 145.A.30(f)
Update Aircrew.55 reference to NTS (DCP 2024 – 020)		Editorial	AMC DASR SPA.55(a)
DASR 147			
Removal of cancelled reference AMC1 147.A.105(f) (DCP 2024 – 037)		Minor	AMC1 147.A.105(f)
DASR ANSP			
Change to ATC Licensing DoSA requirements (DCP 2024 – 039)		Minor	GM ANSP.80.(b)a
AMD - Authorised Maintenance Data' added to glossary (DCP 2024 – 036)		Editorial	DASR GM SPA.10.B
DASR M – Continuing Airworthiness Management			

Aemnd and/or delete DASR M AMC and GM prior to EMAR M edition 2.0 (DCP 2024 – 033)		Minor	Various clauses.
DASR MED			
Revised terminology and formatting (DCP 2024 – 029)		Editorial	GM MED.10.A, paras 4 and 5
DASR NDR			
Removal of ABF as a CASA RAAO (DCP 2024 – 021)		Editorial	AMC NDR.05.A 10.d.
DASR SPA			
Review of DASR SPA.30 due to findings and recommendations in DFSB (DCP 2024 – 001)		Major	DASR SPA .30
DASR UAS			
Develop standalone Scenario (STS) for weaponises UAS (DCP 2023 – 024)		Minor	DASR UAS.35
Various DASR UAS amendments (DCP 2024 – 027)		Minor	DASR UAS.10, .35(c)1,.35(f)1

BP43166295

DASR GR.27 FOR FEB 25 DASR RELEASE

‘OPERATION OF FOREIGN MILITARY AIRCRAFT IN AUSTRALIA’

Contents

SECTION 0: AMENDMENTS TO THE DASP GLOSSARY AND ACRONYMS LIST

1. DASA proposes the following **modified** definitions for the DASP glossary *(yellow highlight shows differences)*:

~~Approval To Operate (ATO)~~ Authority to Operate (AUTHOP)

Sponsor authorisation to operate a non-Defence registered aircraft.

Operation (of the Aircraft)* - *Note: grammatical changes only*

The process and action of operating aircraft (following the initial and continual acceptance of the design, construction and maintenance processes, acts and actions) by the operational chain of command in relation to the Flight of such Aircraft in the operational environment.

2. DASA proposes the following **new** acronyms for the DASP Acronyms List:

ACRONYM	EXPANSION
AUTHOP	Authority to Operate
FMA	Foreign Military Aircraft

SECTION 1: AMENDED DASR GR.27 PART ONLY

The following replaces the extant DASR GR.27 Part **in toto.** Synchronised with the release of the updated DASR GR.27, DASA proposes to **delete** the extant DASR NDR.15 Part **in toto**.

GR.27 – Operation of Foreign Military Aircraft (FMA) in Australia

▸ GM

(a) The Sponsor who approves FMA to operate in Australian territorial airspace must:

1. ensure that FMA operations are conducted in a manner such that risks to the safety of other airspace users and people on the ground are eliminated So Far As is Reasonably Practicable (SFARP) and, where not reasonably practicable to eliminate, minimised SFARP ▸ GM ▸ AMC

2. issue an Authority to Operate (AUTHOP) to document controls that manage the safety of other airspace users and people on the ground ▸ GM ▸ AMC

3. monitor the effectiveness of controls against the risk to the safety of other airspace users and people on the ground; and any significant safety events—and suspend FMA operations when there is concern that safety may be compromised. ▸ AMC

SECTION 2: AMENDED DASR GR.27 PART, AMC and GM

The following replaces the extant DASR GR.27 Part, AMC and GM **in toto**. Synchronised with the release of the updated DASR GR.27, DASA proposes to **delete** the extant DASR NDR.15 Part **in toto**. AMC in purple text. GM in brown text.

GR.27 – Operation of Foreign Military Aircraft (FMA) in Australia

▼GM

GM GR.27 – Foreign military operations in Australia

a. **Purpose: (Context)** Foreign Military Aircraft (FMA) are often approved to operate in Australian territorial airspace. However, foreign personnel can have limited familiarity with Australian airspace requirements and safety obligations to other airspace users and people on the ground. **(Hazard)** Ineffective Sponsor risk management of FMA in Australian airspace can compromise the safety of other airspace users and people on the ground. (**Defence)** This regulation places requirements on Sponsors of FMA in Australian airspace, to support compliance with the *Work Health and Safety (WHS) Act 2011* (Cth), as it relates to the safety of other airspace users and people on the ground.

b. All FMA involvement must have an associated Sponsor (ie an *Officer* IAW s27 of the *Work Health and Safety (WHS) Act 2011* (Cth)), who is accountable for assessing and managing risk to the safety of other airspace users and people on the ground. Therefore, the Sponsor must be reasonably informed—ie have knowledge about the hazard and risks, and ways of eliminating or minimising the risks posed by FMA to the safety of other airspace users and people on the ground. The choice of Sponsor is a matter for command.

c. **Applicability**. This regulation applies to the Sponsor of FMA in Australian territorial airspace, including landing on Defence vessels (whether inside or outside Australian territorial waters).

d. This regulation does not apply to FMA:

   i. that are transiting through Australian territorial airspace (including stopovers)

   ii. that are used for diplomatic purposes only, or as a static display as part of their time in Australian territorial airspace (eg Aircraft used by a visiting state dignitary that will remain parked until the state visit is completed, or a FMA used only as a static display Aircraft at an air show).

(a) The Sponsor who approves FMA to operate in Australian territorial airspace must:

   1. ensure that FMA operations are conducted in a manner such that risks to the safety of other airspace users and people on the ground are eliminated So Far As is Reasonably Practicable (SFARP) and, where not reasonably practicable to eliminate, minimised SFARP ▼GM ▼AMC

AMC GR.27(a)1 – Sponsor risk management

a. Sponsor risk management of FMA in Australian territorial airspace should include:

   i. being informed by:

(a) DASA's recognition of the foreign MAA

(b) open source data, if the foreign MAA is not recognised by DASA (DASA can provide support on request)

(c) previous direct observations of the foreign military (eg through operations, exercises, exchanges or loans, or Defence representatives overseas)

ii. conducting:

(a) risk management:

(i) for the scope of the FMA's involvement, roles, tasks and environment

(ii) IAW the 'safety risk management process' defined in DASA AC 003/2018

(b) continuous risk monitoring and review—IAW 'step 7' of the safety risk management process:

(i) tailored relative to the level of risk exposure

(ii) on a recurring schedule (eg an annual (or similar) basis), when FMA remain in Australian territorial airspace continuously for six or more months, or remain temporarily but on a recurring basis—for example for RSAF 130SQN, SADFO RAAF Pearce invites 130SQN representatives to Base Aviation Safety Committee meetings

iii. engagement with relevant command or HQ's 'Director Legal' (or equivalent appointment) during exercise concept design conferences, operational planning teams, or similar; to seek written authority for the foreign nation to abide by safety direction IAW DASR GR.27 (eg through Status Of Forces Agreements, Technical Arrangements, Memoranda of Understanding, Exercise or Operation Orders, etc)

iv. considering additional safety controls as necessary

v. informing the sponsored organisation of:

(a) safety controls (including limitations) imposed through the Sponsor's Authority to Operate (AUTHOP)

(b) Aviation Safety Event reporting and incident control requirements (inclusive of hazardous material information required by first responders), in consultation with DFSB

(c) Australian Rules of the Air

(d) airspace and environmental conditions and limitations

(e) the Sponsor's obligation to suspend FMA operations when there is concern that safety may be compromised

(f) the Sponsor's point-of-contact.

GM GR.27(a)1 – Sponsor risk management

a. **Sponsor RFIs.** The Sponsor's risk management of the FMA should occur well in advance of the FMA's anticipated in-country arrival. This is to enable the Sponsor to submit any RFIs early to the foreign operating unit, as necessary (to inform the Sponsor's risk assessment). Sponsors should not wait for the foreign operating unit to submit a request for a Diplomatic Clearance (DIPCLR) before submitting RFIs—as foreign operating units may submit DIPLCLR requests at short notice.

b. **Organisations and appointments issuing invitations for FMA**. Organisations and appointments issuing invitations for FMA should identify and consult with Sponsors prior to extending invitations—to enable safety risk management without undue risks to either:

   i. other airspace users and people on the ground

   ii. the adverse international engagement effects of retrospectively withdrawing or curtailing the scope of an invitation.

c. On request, DASA can provide:

   i. a list of recognised countries

   ii. a list of familiar aircraft types

   iii. information on previous Sponsor's relevant FMA risk assessments (DASA maintains a central repository—drawn from DASR Form 140 submissions).

d. These lists and information:

   i. inform appointments and organisations issuing invitations as to which countries AUS could invite without a significant risk of intrusive Sponsor controls (including to the point of effectively excluding participation in the relevant activity)

   ii. provide an indication of when appointments and organisations should consult with DASA before making an invitation/commitment to an international partner.

e. **Proactive Sponsor risk management of FMA**.

   i. **During planning activities**.

      (a) **DASA MAA recognition**. DASA's MAA recognition promotes awareness, efficiency and flexibility, while maintaining an established level of credible and defensible safety assurance. The goal of recognition is to understand similarities and differences in the assessed MAA and its system, providing confidence that the foreign operator is working within a suitable safety framework with independent oversight. The basis of recognition is a top-down systems assessment, using an internationally agreed (open source) set of questions (Military Airworthiness Recognition Questions—MARQ), culminating in a published recognition certificate and relevant provisions (ie recognition scope, conditions and caveats). In turn, the regulated community can exploit this information to ensure the suitability of their specific Aviation Safety requirements.

      (b) In addition to leveraging from DASA's recognition of the MAA, Sponsors should conduct their own assessment of the FMA and its operation—informed by experience from previous and current operations and

exercises, open sources, and RFIs.

(c) **Operation/exercise concept design**. Major Defence exercises and operations are planned through concept design conferences, operational planning teams, or similar. Such planning includes reviewing extant international agreements/arrangements (eg enduring Status Of Forces Agreements, Technical Arrangements and Memoranda Of Understanding) and the need for supplemental agreements/arrangements specific to an operation or exercise. The Sponsor should seek for any updated documents to include written authority for the foreign nation to abide by any safety directions imposed IAW DASR GR.27.

(d) Where concept design conferences are not held, or where formal agreements are not required/will not include written authority for the foreign nation to abide by safety directions imposed IAW DASR GR.27, Sponsors may alternatively choose to either:

(i) include this requirement in the Exercise or Operation Orders (or equivalent)

(ii) write a letter to the relevant foreign operating unit (the unit which has command of the FMA), seeking agreement to comply with Sponsor direction (as a condition of access to Australian territorial airspace).

(e) **Direct observations of the foreign military**. Previous direct observations of the foreign military (through exercises or operations (and relevant post activity reports), exchanges, loans, etc) can inform the Sponsor's consideration of additional safety controls and operational limitations.

(f) **RFIs**. RFIs on aviation safety topics, raised in planning correspondence to the foreign operating unit, can inform the Sponsor's consideration of safety controls and operational limitations. Some example past RFIs include the foreign military's:

(i) Aircraft Type crew duty limits

(ii) deployed AVMO arrangements, and likely need to access local AVMO services

(iii) minimum on-board emergency fuel policy in Australian territory

(iv) Dangerous Goods carriage policy.

(g) **UAS**. The level of safety implicit in DASR UAS provides a suitable benchmark for the sponsor to execute their responsibilities. That is, a Sponsor could identify which UAS category an equivalent Defence UAS would operate within, and use this equivalent categorisation as a basis for assessing the foreign UAS operator's risk controls. For example, where a foreign UAS operation is within the scope of a 'specific category' Standard Scenario, or within scope of the 'open' category, the Sponsor should confirm the FMA has implemented each of the standard operating conditions for that category.

ii. **Pre and during FMA Flights in Australian territorial airspace**.

(a) **Use of ADF air riders and other liaison staff for FMA**. Use of ADF air riders and other liaison staff (interpreter or otherwise) can provide an

effective safety control of FMA (against the hazards FMA pose to the safety of other airspace users and people on the ground), for a pre-agreed scope and duration/exposure—pending the relevant foreign command's acceptance. Note that the carriage of air riders and other liaison staff may be subject to CDF Directive 12/16.

(b) **Visual confidence inspections**. Where necessary, targeted and informal visual confidence inspections of the FMA can validate the ability of the FMA to safely operate in Australian territorial airspace.

(c) **Operational limitations**. Operational limitations can provide effective safety controls (eg foreign fast jet Aircraft may be based at RAAF Base Tindal and be required to transit to and from the designated training area via routes constrained to sparsely populated areas where possible).

f. **Where the foreign MAA is not recognised by DASA**. Where the foreign MAA is not recognised by DASA, CDF Directive 12/16 provides additional reference sources that Sponsors may use to inform the required safety controls. DASA can provide support on request.

2. issue an Authority to Operate (AUTHOP) to document controls that manage the safety of other airspace users and people on the ground ▼GM ▼AMC

AMC GR.27(a)2 – Sponsor's Authority to Operate (AUTHOP)

a. Sponsors of FMA should:

i. use DASR Form 140 to issue an Authority To Operate (AUTHOP), and to:

(a) advise DASA, before FMA Flights in Australian territorial airspace commence, of the intent to Sponsor FMA (note, DASA's registration of the AUTHOP is not a prerequisite to issuing the Sponsor's approval)

(b) document the outcomes of the Sponsor's safety risk management

ii. coordinate transfers of sponsorship as necessary.

GM GR.27(a)2 – Sponsor's Authority to Operate (AUTHOP)

a. The purpose of an AUTHOP is to document the Sponsor's consideration of risks to the safety of other airspace users and people on the ground. The AUTHOP should define:

i. the FMA being approved and the means of compliance with DASR GR.27—including the safety controls the Sponsor has implemented

ii. any FMA Sponsorship transfers, where necessary (eg joint and combined land and ship-based operations may require different Sponsors).

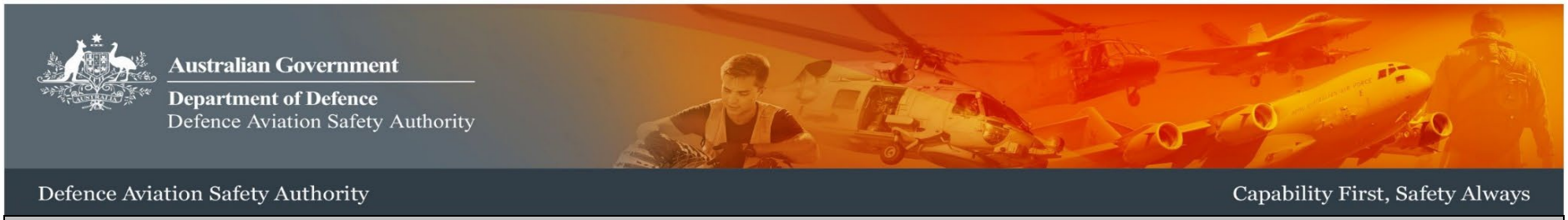
b. Sponsor AUTHOP information assists DASA to maintain a register of FMA in Australian territorial airspace, and documents Sponsor details in case of an Aviation Safety Event.

3. monitor the effectiveness of controls against the risk to the safety of other airspace users and people on the ground; and any significant safety events—and suspend FMA operations when there is concern that safety may be compromised. ▼AMC

AMC GR.27(a)3 – Suspension of FMA Flight operations (AUS)

a. **Suspension of Flight operations**. The Sponsor suspending Flight operations should advise relevant Service commands and DASA as soon as practicable, including the proposed criteria and plan for resuming operations. Sponsors should consider the principles of AMC ARO.55.A - *Cessation of Flight Operations (AUS)* when suspending FMA Flight operations.

b. **Resumption of Flight operations**. Sponsors should consider the principles of AMC ARO.55.A - *Cessation of Flight Operations (AUS)* when resuming FMA Flight operations.



DASR AMENDMENT RECORD
DCP 2024-017

DASR CLAUSE: DASR Glossary

RATIONALE FOR CHANGE

Recommendation from Explosives Study to add definitions into DASR Glossary. Addition of this terminology provides clarity around related activities and compliance with DASA and Explosive Safety Regulatory Framework (ESRF). In particular, incorporation of terminology contributes towards safe design of explosives in aircraft systems and safe integration of aircraft stores containing explosives.

CURRENT REGULATION TEXT

N/A

REVISED REGULATION TEXT

Aircraft Stores Compatibility:
The ability of an aircraft, stores, stores management systems, and related suspension equipment to coexist without unacceptable effects of one of the aerodynamic, structural, electrical, or functional characteristics of the others under all flight and ground conditions expected to be experienced by the aircraft-store combination. A particular store may be compatible with an aircraft in a specific configuration, although not necessarily so with all pylons (or stations) under all conditions.

Air-Launched Store:
An aircraft store able to be intentionally separated from the aircraft in flight.

Explosive:
A substance manufactured with a view to producing an explosion or pyrotechnic effect.

Weapon:
Any device, whether tangible or intangible, designed or intended to be used in warfare to cause: a. injury to, or death of, persons; or b. damage to, or destruction of, objects.

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DASR CLAUSE: DASR Glossary
RATIONALE FOR CHANGE
Removal of outdated terminology *and reference to,* aviation support systems which is no longer utilised within DASRs.
CURRENT REGULATION TEXT
AvSS - Aviation Support System(s) The systems or services that are Defence-owned or are operated exclusively for or on behalf of Defence, have a functional or physical interface with aircraft, and have the potential to compromise Aviation Safety. **AvSSC - Aviation Support System Certificate** A document that confirms an AvSS has been designed, constructed, and can be maintained and operated for its intended purpose (similar to the MTC for aircraft). **AvSSMP - Aviation Support System Management Plan** Intended to capture the scope and requirements of an AvSS over its lifecycle. **Aviation System** The integration of equipment, personnel, organisation, publications and procedures to achieve an aviation role. Aviation systems include: Defence registered aircraft types, non-Defence registered aircraft types, Uncrewed Aircraft Systems (UAS) and Aviation Support Systems (AvSS). **Defence Aviation** The design, construction, maintenance and operation of any aircraft owned, leased, hired or chartered by Defence; any aircraft operated exclusively for or on behalf of Defence; any aircraft for which CASA has placed statutory airworthiness responsibilities on Defence; and any AvSS. **Flying Management System (FMS)** A system of processes and procedures within a flying organisation centred on Aircraft types or AvSS which establishes the management practices, operational rules, and operator training and qualification requirements that support safe Flight Operations.
REVISED REGULATION TEXT

AvSS, AvSSC, AvSSMP –terms to be deleted

Aviation System
The integration of equipment, personnel, organisation, publications and procedures to achieve an aviation role. Aviation systems include: Defence registered aircraft types, non-Defence registered aircraft types, Uncrewed Aircraft Systems (UAS).

Defence Aviation
The design, construction, maintenance and operation of any aircraft owned, leased, hired or chartered by Defence; any aircraft operated exclusively for or on behalf of Defence; any aircraft for which CASA has placed statutory airworthiness responsibilities on Defence.

Flying Management System (FMS)
A system of processes and procedures within a flying organisation centred on Aircraft types which establishes the management practices, operational rules, and operator training and qualification requirements that support safe Flight Operations.

DASR CLAUSE: DASR Acronyms

RATIONALE FOR CHANGE

Removal of acronyms following removal of outdated terminology from DASR Glossary.

CURRENT REGULATION TEXT

AvSS
Aviation Support System(s)

AvSSC
Aviation Support System Certificate

AvSSMP
Aviation Support System Management Plan

REVISED REGULATION TEXT

N/A – Removal of acronym

Australian Government
Department of Defence
Defence Aviation Safety Authority

Defence Aviation Safety Authority

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: 21.A.125B Findings

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

(a) When objective evidence is found showing non-compliance of the holder of a letter of agreement with the applicable requirements of this DASR, the finding shall be classified as follows:

1. A level one finding is any non-compliance with this DASR which could lead to uncontrolled non-compliances with applicable design data and which could affect the safety of the aircraft.
2. A level two finding is any non-compliance with this DASR which is not classified as level one.

(b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to a non-compliance under paragraph (a).

(c) After receipt of notification of findings:

1. in case of a level one finding, the holder of the letter of agreement shall demonstrate corrective action to the satisfaction of the Authority within a period of no more than 21 working days after written confirmation of the finding;
2. in case of level two findings, the corrective action period granted by the Authority shall be appropriate to the nature of the finding but in any case initially shall not be more than three months. In certain circumstances and subject to the nature of the finding the Authority may extend the three month period subject to a satisfactory corrective action plan agreed by the Authority;
3. a level three finding shall not require immediate action by the holder of the letter of agreement. If appropriate, the Authority will specify a compliance time.

(d) In case of level one or level two findings, the letter of agreement may be subject to a partial or full limitation, suspension and revocation of the letter of agreement. The holder of the letter of agreement shall provide confirmation of receipt of the notice of limitation, suspension or revocation of the letter of agreement in a timely manner.

REVISED REGULATION TEXT
Refer to GR.60 “Oversight and Enforcement”.

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: 21.A.158 Findings

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

(a) When objective evidence is found showing non-compliance of the holder of a production organisation approval with the applicable requirements of this DASR, the finding shall be classified as follows:

1. a level one finding is any non-compliance with this DASR which could lead to uncontrolled non-compliances with applicable design data and which could affect the safety of the aircraft;
2. a level two finding is any non-compliance with this DASR which is not classified as level one.

(b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to a non-compliance under paragraph (a).

(c) After receipt of notification of findings issued by the Authority:

1. in case of a level one finding, the holder of the production organisation approval shall demonstrate corrective action to the satisfaction of the Authority within a period of no more than 21 working days after written confirmation of the finding;
2. in case of level two findings, the corrective action period granted by the Authority shall be appropriate to the nature of the finding but in any case initially shall not be more than three months. In certain circumstances and subject to the nature of the finding the Authority may extend the three months period subject to a satisfactory corrective action plan agreed by the Authority;
3. a level three finding shall not require immediate action by the holder of the production organisation approval.

(d) In case of level one or level two findings, the production organisation approval may be subject to a partial or full limitation, suspension or revocation of the production organisation approval. The holder of the production organisation approval shall provide confirmation of receipt of the notice of limitation, suspension or revocation of the production organisation approval in a timely manner.

REVISED REGULATION TEXT
Refer to GR.60 “Oversight and Enforcement”.

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: 21.A.258 Findings

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

(a) When, during the investigations referred to in DASR 21.A.257 and GM 21.A.15(b)(6), objective evidence is found demonstrating non-compliance of the holder of a design organisation approval with the applicable requirements of this DASR, the finding shall be classified as follows:

1. a level one finding is any non-compliance with this DASR which could lead to uncontrolled non-compliances with applicable requirements and which could affect the safety of the aircraft;
2. a level two finding is any non-compliance with this DASR which is not classified as level one.

(b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to a non-compliance under paragraph (a).

(c) After receipt of notification of findings under the applicable administrative procedures established by the Authority,

1. in case of a level one finding, the holder of the design organisation approval shall demonstrate to the satisfaction of the Authority that it has taken adequate corrective action within a period of no more than 21 working days after written confirmation of the finding;
2. in case of level two findings, the holder of a design organisation approval shall demonstrate to the satisfaction of the Authority that it has taken adequate corrective action within a time period set by the Authority which is appropriate to the nature of the finding but in any case initially shall not be more than three months. The Authority may extend the initial time period where it considers that the nature of the finding allows such extension and where the applicant has submitted a corrective action plan which the Authority finds satisfactory; and
3. a level three finding shall not require immediate action by the holder of the design organisation approval.

(d) In case of level one or level two findings, the design organisation approval may be subject to a partial or full suspension or revocation under the applicable administrative procedures established by the Authority. The holder of the design organisation approval shall provide confirmation of receipt of the notice of suspension or revocation of the design organisation approval in a timely manner.

REVISED REGULATION TEXT
Refer to GR.60 “Oversight and Enforcement”.

Australian Government
Department of Defence
Defence Aviation Safety Authority

Defence Aviation Safety Authority

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: GM 145.A.90(a)(1) Continued validity of approval (AUS)

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

1. When during audits or by other means, evidence is found showing non-compliance to the DASR M requirements, the MAA shall take the following actions:
   (a) For level 1 findings, immediate action shall be taken by the MAA to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the CAMO approval, until successful corrective action has been taken by the CAMO.
   (b) For level 2 findings, the corrective action period granted by the MAA must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the MAA may extend the three month period subject to a satisfactory corrective action plan agreed by the MAA.
   (c) Observations will not require immediate action by the holder of the CAMO approval. If appropriate, the MAA will specify a compliance time.

2. Action shall be taken by the MAA to suspend, in whole or part, the approval in case of failure to comply within the timescale granted by the MAA.

REVISED REGULATION TEXT
NIL.

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: 145.A.95 AMO Findings by the MAA

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

(a) After receipt of notification of findings the AMO shall:

1. Identify the root cause of the non-compliance; and
2. Define a corrective action plan; ►**AMC** and
3. Demonstrate corrective action implementation to the satisfaction of the MAA within a period required by the MAA.

(b) A level 1 finding is any significant non-compliance with DASR 145 requirements which lowers the safety standard and hazards seriously the flight safety. Depending upon the extent of the level 1 finding, it leads to an immediate full or partial revocation, limitation or suspension of the approval by the MAA until successful corrective action has been taken by the AMO.

(c) A level 2 finding is any non-compliance with the DASR 145 requirements which could lower the safety standard and possibly hazards the flight safety.

(d) An AMO’s non-compliance with the actions identified in DASR 145.A.95(a) leads to a full or partial suspension of the approval by the MAA.

REVISED REGULATION TEXT
Refer to GR.60 “Oversight and Enforcement”.

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: GM M.A.715(a)(1) Continued validity of approval (AUS)

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

1. When during audits or by other means, evidence is found showing non-compliance to the DASR M requirements, the MAA shall take the following actions:
   (a) For level 1 findings, immediate action shall be taken by the MAA to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the CAMO approval, until successful corrective action has been taken by the CAMO.
   (b) For level 2 findings, the corrective action period granted by the MAA must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the MAA may extend the three month period subject to a satisfactory corrective action plan agreed by the MAA.
   (c) Observations will not require immediate action by the holder of the CAMO approval. If appropriate, the MAA will specify a compliance time.

2. Action shall be taken by the MAA to suspend, in whole or part, the approval in case of failure to comply within the timescale granted by the MAA.

REVISED REGULATION TEXT
NIL.

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: M.A.716 CAMO findings by the MAA

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

►**GM**

(a) After receipt of notification of findings, the CAMO shall:
1. identify the root cause of the non-compliance; and
2. define a corrective action plan; and ►**AMC**
3. demonstrate corrective action implementation to the satisfaction of the MAA within a period required by the MAA.

(b) A level 1 finding is any significant non-compliance with DASR M requirements which lowers the safety standard and hazards seriously the flight safety. Depending upon the extent of the level 1 finding, it leads to an immediate full or partial revocation, limitation or suspension of the approval by the MAA until successful corrective action has been taken by the CAMO.

(c) A level 2 finding is any non-compliance with the DASR M requirements which could lower the safety standard and possibly hazards the flight safety.

(d) A CAMO’s non-compliance with the actions identified in DASR M.A.716(a) leads to a full or partial suspension of the approval by the MAA.

REVISED REGULATION TEXT
Refer to GR.60 “Oversight and Enforcement”.

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: M.A.905 Findings from an aircraft airworthiness review carried out by the MAA

RATIONALE FOR CHANGE

There are inconsistencies between DASA Regulations and Instructions, therefore including DASA Findings Definitions in GR.60 “Oversight and Enforcement” will align DCA, DIA and DAVNOPs to assign DASR Finding Levels through conduct of O&E activities.

Proposed amendment includes addition of DASR Finding Levels IAW DASA(I) SAPO 01-009 in GR.60 and removal of DASR Findings Definitions from DASR 21/M/145/147 as directed from Director DCA during O&E CoP which occurred on 10 Jul 24.

CURRENT REGULATION TEXT

(a) After receipt of notification of findings by the MAA, the Operating Organisation of the aircraft concerned shall: ►**GM**

1. ensure the aircraft subject to the finding does not fly until such time that the specific non-compliance with DASR M, or other condition as defined in DASR M.A.301(b), has been corrected; and ►**AMC**
2. identify the root cause of the non-compliance; and
3. define a corrective action plan; and ►**AMC**
4. demonstrate corrective action implementation to the satisfaction of the MAA within a period required by the MAA.

(b) A level 1 finding is any significant non-compliance with DASR M requirements which lowers the safety standard and hazards seriously the flight safety. ►**AMC**

(c) A level 2 finding is any non-compliance with the DASR M requirements which could lower the safety standard and possibly hazards the flight safety.

(d) The Operating Organisation shall consider the potential for non-compliance in other aircraft under its responsibility and take appropriate action in accordance with DASR M.A.905(a)1.

REVISED REGULATION TEXT

(a) After receipt of notification of findings by the MAA, the Operating Organisation of the aircraft concerned shall manage the finding IAW GR.60, and: ►**GM**

1. ensure the aircraft with a non-compliance does not fly until such time that any condition defined in DASR M.A.301(b) has been corrected. ►**AMC**

(b) NOT APPLICABLE

(c) NOT APPLICABLE

(d) The Operating Organisation shall consider the potential for non-compliance in other aircraft under its responsibility and take appropriate action in accordance with DASR M.A.905(a)1.

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DASR AMENDMENT RECORD
DCP 2024 - 018

DASR CLAUSE: GR.60 Oversight and Enforcement

RATIONALE FOR CHANGE

This change introduces common definitions for DASR compliance findings applicable across all DASR parts and regulated entities.

CURRENT REGULATION TEXT

(a) Regulated entities must cooperate with DASA with a view to assuring compliance with the DASR.

(b) For the purposes of the implementation of paragraph (a), regulated entities must conduct investigations, including ramp inspections, and must take any measure to prevent the continuation of a non-compliance.

(c) In order to facilitate the taking of appropriate enforcement action by competent authorities, regulated entities shall exchange information on identified infringements with DASA.

REVISED REGULATION TEXT

[no change to paras (a) through (c)]

(d) When objective evidence is found showing non-compliance with the applicable requirements of the DASR, DASA will issue a finding which shall be classified as follows: ►**GM**

1. DASR Level 1 finding - Any non-compliance with the DASR requirements which lowers the safety standard and seriously hazards flight safety.

2. DASR Level 2 finding - Any non-compliance with the DASR requirements which lowers the safety standard and possibly hazards flight safety.

3. DASR Level 3 finding - Any non-compliance with the DASR requirements or potential problem that could lower the safety standard and possibly hazards flight safety.

(e) After receipt of notification for a Level 1 or Level 2 finding, the regulated entity shall, to the satisfaction of DASA and within a period agreed by DASA:
►**GM**

1. implement an immediate action to eliminate so far as is reasonably practicable (SFARP), or otherwise minimise SFARP, the Aviation Safety risk associated with the non-compliance;

2. identify the root cause of the non-compliance;

3. define a corrective action plan; and

4. demonstrate effective corrective action implementation.

(f) After receipt of notification for a Level 3 finding, the regulated entity shall:

1. manage the finding internally through its own management system; and

2. implement action as necessary to address the non-compliance or potential problem.

(g) Non-compliance by the regulated entity with the actions identified in DASR GR.60(e) will result in a full or partial suspension of the relevant DASR authorisation by DASA.

NEW GM TEXT

GM GR.60(d) – Oversight and enforcement (AUS)

1. An interpretation of Finding Levels in the context of DASR 147 are as follows:

a. DASR 147 Level 1 Finding – A non-compliance that *'lowers the safety standard and seriously hazards flight safety'* in a DASR 147 environment would result from a critical failure of a training product that degrades training outcomes impacting airworthiness. Examples might include a failure to follow established training procedures that have a direct impact to training outcomes, significant deviation from approved training product, significant unapproved changes to the training organisation, or awarding training outcomes that have not been fully achieved.

b. DASR 147 Level 2 Finding – A non-compliance that *'lowers the safety standard and possibly hazards flight safety'* in a DASR 147 environment would result from a major failure of a training product or a major failure to comply with training governance requirements that has the possibility to degrade training outcomes impacting airworthiness. Examples might include a deviation in training processes that impacts training outcomes or a major deviation from approved training product.

c. DASR 147 Level 3 Finding – A non-compliance, or potential problem, that '*could lower the safety standard and possibly hazard flight safety*' in a DASR 147 environment would result from a minor failure of a training product or minor failure to comply with training governance requirements.

Examples might include minor errors in documentation or minor procedural deviations that if left untreated could manifest into a lowering of safety standards, or a minor failure to achieve training governance requirements.

GM GR.60(e) – Oversight and enforcement

Root-cause Analysis

1. It is important that the analysis does not primarily focus on establishing who or what caused the non-compliance but why it was caused. Establishing the root causes of a non-compliance often requires an overarching view of the events and circumstances that led to it, to identify all possible systemic and contributing factors (regulatory, human factors, organisational, managerial, cultural, technical, etc) in addition to the direct factors. A narrow focus on single events or failures, or the use of a simple method such as fault tree, to identify the chain of events that led to the non-compliance may not properly reflect the complexity of the issue. This may then give rise to the risk that important factors that are required to be addressed in order to prevent recurrence will be ignored.

2. Such inappropriate or partial root-cause analysis often leads to defining ‘quick fixes’ addressing the symptoms of the non-compliance only. A peer review of the results of the root-cause analysis may increase its reliability and objectivity.

3. A system description of the organisation considering organisational structures, processes and their interfaces, procedures, staff, equipment, facilities and the environment in which the organisation operates will support both effective root-cause (reactive) and hazard (proactive) analysis.

Corrective Actions

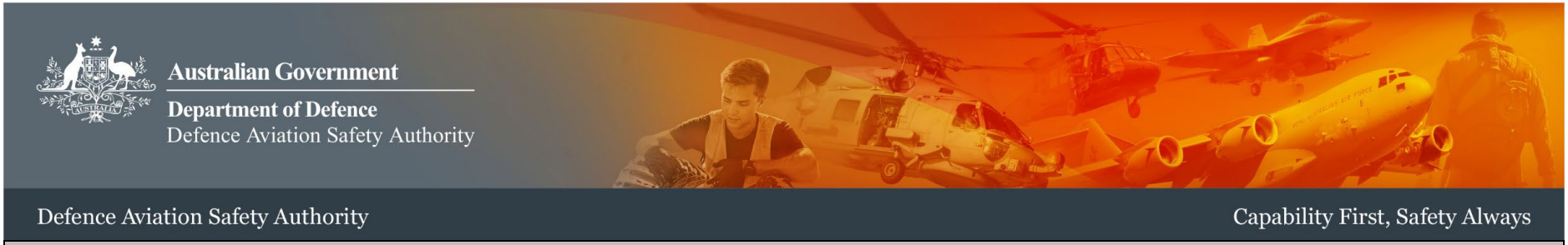
1. Corrective action is the action to eliminate or mitigate the root causes and prevent recurrence of an existing detected non-compliance, or other undesirable condition or situation. Proper determination of the root cause is crucial for defining effective corrective actions to prevent recurrence.

Corrective Action Plan

1. The corrective action plan links individual root causes and corrective actions defining the strategy to prevent non-compliance recurrence. It documents the expected objective quality evidence required to validate the effectiveness of the corrective action and the timeline for implementation (inclusive of collective evidence to validate effectiveness) of each corrective action.

DASR AMENDMENT RECORD
DCP 2024 - 018

DASR GLOSSARY
RATIONALE FOR CHANGE
Proposed amendment to add definition for “Training Product” to the DASR Glossary. Clarity is to be provided for the regulated community as an extension to GM GR.60(d) – DASR 147 Findings Amplification.
CURRENT REGULATION TEXT
NIL.
REVISED REGULATION TEXT
Training Product: A qualification, skill, knowledge, competency, course or module that influences a basic training course (IAW DASR 66 syllabus), or aircraft type/task training course (IAW DASR 66).



DASR AMENDMENT RECORD
DCP 2024 - 019

DASR CLAUSE: VARIOUS

RATIONALE FOR CHANGE

DASA aligned all variations of the defined term 'Configuration, Role and Environment' (CRE) for consistency.

TABULATED CHANGES

Regulation	Sub paragraph	Current text	Proposed text
DASPMAN Glossary	[CRE title]	Configuration, Role And Operating Environment (CRE) *	Configuration, Role and Environment (CRE) *
	[CRE definition]	The configuration (functional and physical characteristics), role (warfighting function) and environment (physical and meteorological conditions); as specified in an aviation system's Statement of Operating Intent and Usage (SOIU).	The configuration (physical and functional attributes of the aircraft), role (how the aircraft is flown and employed) and environment (the physical and functional conditions in which the aircraft is operated); as specified in an aviation system's Statement of Operating Intent and Usage (SOIU).
GR.80	GM GR.80(C) para 1.a.ii	incompatibilities between original civil/military type certifications and Defence's configurations, roles and operating environments	incompatibilities between original civil/military type certifications and Defence's Configuration, Role and Environment (CRE)

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Regulation	Sub paragraph	Current text	Proposed text
DASR MED	MED.05(a)	The MAO or Sponsor (Sponsor only applicable under DASR NDR.05 or DASR NDR.10) must ensure Aircrew complete initial AVMED training IAW the learning requirements approved by Commanding Officer (CO) Institute of Aviation Medicine (IAM), prior to conducting flight operations in a military Configuration Role and Environment (CRE).	The MAO or Sponsor (Sponsor only applicable under DASR NDR.05 or DASR NDR.10) must ensure Aircrew complete initial AVMED training IAW the learning requirements approved by Commanding Officer (CO) Institute of Aviation Medicine (IAM), prior to conducting flight operations in a military Configuration, Role and Environment (CRE).
	AMC MED.05(a) para a.i	appropriate to their Configuration Role and Environment (CRE)	appropriate to their Configuration, Role and Environment (CRE)
	GM MED.05(a) [title]	GM MED.05(a) – Military Configuration Role Environment (CRE) (AUS)	GM MED.05(a) – Military Configuration, Role and Environment (CRE) (AUS)
DASR ORO	ORO.05(a)1	within the approved Statement of Operating Intent and Usage (SOIU) and Configuration Role and operating Environment (CRE) parameters	within the approved Statement of Operating Intent and Usage (SOIU) and Configuration, Role and Environment (CRE) parameters
	AMC ORO.30(a)3 para a.xiv.(a)(ii)	**Review of Flight and Flight Related Operations safety risks.** The FLTAUTHO is to conduct a review of the Flight and Flight Related Operations safety risks, considering all factors arising from the SOIU Configuration, Role or Environment (CRE) that have the potential to compromise Aviation Safety, and being satisfied that the Flight will be conducted whereby residual risk is eliminated or otherwise minimised SFARP.	**Review of Flight and Flight Related Operations safety risks.** The FLTAUTHO is to conduct a review of the Flight and Flight Related Operations safety risks, considering all factors arising from the SOIU configuration, role or environment that have the potential to compromise Aviation Safety, and being satisfied that the Flight will be conducted whereby residual risk is eliminated or otherwise minimised SFARP.

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Regulation	Sub paragraph	Current text	Proposed text
DASR UAS	AMC UAS.30.B para 3	The UASOP should include the UAS basis of technical approval, key initial and continuing airworthiness requirements, and special conditions to balance the operational requirements with the risk of the UAS operation. A UASOP enables the UAS to operate in its designated Configuration, Role and operating Environment (CRE), and will:	The UASOP should include the UAS basis of technical approval, key initial and continuing airworthiness requirements, and special conditions to balance the operational requirements with the risk of the UAS operation. A UASOP enables the UAS to operate in its designated Configuration, Role and Environment (CRE), and will:
	GM UAS.30.b(2) para 1	When DASA directs that the UASOP applicant must document the role and operating environment in an SOIU, the UASOP applicant may use the UAS SOIU template. SOIU approval is IAW AMC ARO.50.A. When an SOIU is not required, the UASOP applicant may use a UAS CRE document template for capturing the Configuration, Role and operating Environment (CRE). The Commander/Group Head (or delegate) may approve the UAS CRE document. In any case, a UASOP applicant must reference the document defining the designated CRE as per AMC UAS.30.B.3(b) in the relevant DASR Form 152.	When DASA directs that the UASOP applicant must document the role and environment in an SOIU, the UASOP applicant may use the UAS SOIU template. SOIU approval is IAW AMC ARO.50.A. When an SOIU is not required, the UASOP applicant may use a UAS CRE document template for capturing the Configuration, Role and Environment (CRE). The Commander/Group Head (or delegate) may approve the UAS CRE document. In any case, a UASOP applicant must reference the document defining the designated CRE as per AMC UAS.30.B.3(b) in the relevant DASR Form 152.
	GM UAS.35.E para 2	**Applicability**. This Standard Scenario may be applied to all UAS, provided that every requirement and limitation of the Scenario is met. UAS trials/experimentation may include new aircraft/platforms, variation to equipment/sensor fit, new Configuration, Role, and operating Environment (CRE), operational evaluation, and flight test. UAS operation must only be in airspace that enables the exclusion of civilian and military aircraft and in a sufficiently remote area, such that a catastrophic UAS failure is very unlikely to result in impact to a person.	**Applicability**. This Standard Scenario may be applied to all UAS, provided that every requirement and limitation of the Scenario is met. UAS trials/experimentation may include new aircraft/platforms, variation to equipment/sensor fit, new Configuration, Role and Environment (CRE), operational evaluation, and flight test. UAS operation must only be in airspace that enables the exclusion of civilian and military aircraft and in a sufficiently remote area, such that a catastrophic UAS failure is very unlikely to result in impact to a person.

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Regulation	Sub paragraph	Current text	Proposed text
DASR SPA	GM SPA.10	**Purpose. (Context)** On occasion, to maintain key capabilities at high levels of operational readiness and to undertake non-discretionary activities in support of Australia's national interest, commanders may be required to operate aircraft outside of approved configuration, role, environment (CRE), limitations or conditions. **(Hazard)** Operating aircraft outside of approved CRE, limitations or conditions may affect Aviation Safety. **(Defence)** This regulation requires the MAO to establish a process to manage risks to Aviation Safety for aircraft operated under a Command Clearance.	**Purpose. (Context)** On occasion, to maintain key capabilities at high levels of operational readiness and to undertake non-discretionary activities in support of Australia's national interest, commanders may be required to operate aircraft outside of approved configuration, role, environment, limitations or conditions. **(Hazard)** Operating aircraft outside of approved configuration, role, environment, limitations or conditions may affect Aviation Safety. **(Defence)** This regulation requires the MAO to establish a process to manage risks to Aviation Safety for aircraft operated under a Command Clearance.
	GM SPA.40.A para 3	The DLRO system supports standing risk assessments and approvals for aircraft, based on the Configuration, Role and operating Environment (CRE), to develop technical and/or operational mitigation strategies. These standing assessments and approvals are valid until a change occurs to the approved CRE or as directed by the MAO.	The DLRO system supports standing risk assessments and approvals for aircraft, based on the Configuration, Role and Environment (CRE), to develop technical and/or operational mitigation strategies. These standing assessments and approvals are valid until a change occurs to the approved CRE or as directed by the MAO.

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Regulation	Sub paragraph	Current text	Proposed text
DASR M	AMC M.A.304(d) para 11.a	applicable to the Defence aircraft type and compatible with the Defence configuration, role and environment;	applicable to the Defence aircraft type and compatible with the Defence Configuration, Role and Environment (CRE);
	Appendix I to DASR AMC M.A.302 para 2.3	Evaluation should be made of the role, aircraft/fleet utilisation, landing rate, configuration, operating environment, equipment fit and, in particular, the experience of the Operating Organisation/CAMO/other Operating Organisations when assessing an existing AMP.	Evaluation should be made of the aircraft/fleet utilisation, landing rate, equipment fit, Configuration, Role and Environment (CRE) and, in particular, the experience of the Operating Organisation/CAMO/other Operating Organisations when assessing an existing AMP.
	Appendix I to DASR AMC M.A.302 para 5.2	review of the detailed requirements should be carried out at least annually for continued validity in the light of operating experience and any changes to assumed utilisation, configuration, role or operating environment.	review of the detailed requirements should be carried out at least annually for continued validity in the light of operating experience and any changes to assumed utilisation or CRE.

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Regulation	Sub paragraph	Current text	Proposed text
DASR 21	AMC1 21.A.14(c) [TCAE c]	ADF configuration, Role and Environment (including a link to the SOIU).	ADF Configuration, Role and Environment (CRE) (including a link to the SOIU).
	GM1 21.A.16B	The Airworthiness Code selected for use under DASR 21.A.16A may contain deficiencies against contemporary airworthiness requirements and/or may not account for Defence's unique Configuration, Role and operating Environment (CRE). This may require the application of special conditions in addition to an Airworthiness Code. The Defence Aviation Safety Design Requirements Manual (DASDRM) defines 'essential' design requirements and standards that must be applied as special conditions to supplement Airworthiness Codes due to deficiencies in the Codes or to account for the Defence CRE in addition to the reasons described in DASR 21.A.16B(a). The DASDRM also defines a number of 'recommended' design requirements and standards for which compliance is not prescribed, but which should be applied where reasonably practicable.	The Airworthiness Code selected for use under DASR 21.A.16A may contain deficiencies against contemporary airworthiness requirements and/or may not account for Defence's unique Configuration, Role and Environment (CRE). This may require the application of special conditions in addition to an Airworthiness Code. The Defence Aviation Safety Design Requirements Manual (DASDRM) defines 'essential' design requirements and standards that must be applied as special conditions to supplement Airworthiness Codes due to deficiencies in the Codes or to account for the Defence CRE in addition to the reasons described in DASR 21.A.16B(a). The DASDRM also defines a number of 'recommended' design requirements and standards for which compliance is not prescribed, but which should be applied where reasonably practicable.
	GM1 21.A.17A [third para]	In the aircraft Type Certification domain, Configuration, Role and operating Environment (CRE) is a pivotal concept. Where an ab initio Type Certification programme is proposed for a Defence aircraft, defining the CRE is essential to ensure that the basis of certification is consistent with the intended Defence use of the aircraft.	In the aircraft Type Certification domain, Configuration, Role and Environment (CRE) is a pivotal concept. Where an ab initio Type Certification programme is proposed for a Defence aircraft, defining the CRE is essential to ensure that the basis of certification is consistent with the intended Defence use of the aircraft.

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Regulation	Sub paragraph	Current text	Proposed text
DASR 21	AMC 21.A.17A [second para]	The scope of the TCB shall be limited to those requirements necessary to cover all the criteria listed in the European Military Airworthiness Certification Criteria (EMACC) for the intended Configuration, Role and operating Environment (CRE). For novel aircraft designs, where necessary and sufficiently applicable airworthiness criteria are not included in the EMACC, additions may be approved by the Authority.	The scope of the TCB shall be limited to those requirements necessary to cover all the criteria listed in the European Military Airworthiness Certification Criteria (EMACC) for the intended Configuration, Role and Environment (CRE). For novel aircraft designs, where necessary and sufficiently applicable airworthiness criteria are not included in the EMACC, additions may be approved by the Authority.
	AMC 21.A.17A(a) [third indent]	The deltas in configuration, role and operating environment which would limit the extent to which the prior certification could be leveraged.	The deltas in Configuration, Role and Environment (CRE) which would limit the extent to which the prior certification could be leveraged.
	GM2 21.A.20 [first para]	When leveraging prior certification by a CAA/MAA to claim part or full relief against the requirement to develop compliance evidence, the Configuration, Role and operating Environment (CRE) used to underpin the prior certification needs to be understood and compared to the intended Defence CRE at a detailed level. In isolation, basic comparisons of high-level aircraft role(s), mission mix or flight profiles (as articulated in the SOIU) will usually not provide the fidelity required.	When leveraging prior certification by a CAA/MAA to claim part or full relief against the requirement to develop compliance evidence, the Configuration, Role and Environment (CRE) used to underpin the prior certification needs to be understood and compared to the intended Defence CRE at a detailed level. In isolation, basic comparisons of high-level aircraft role(s), mission mix or flight profiles (as articulated in the SOIU) will usually not provide the fidelity required.
	GM1 21.A.20 para 2	The prior certification provided by the CAA/MAA may not always be entirely applicable for the Defence Configuration, Role and operating Environment (CRE) (and as such may not be entirely applicable for demonstrating compliance to the Defence TCB). There are a number of reasons why this would be the case:	The prior certification provided by the CAA/MAA may not always be entirely applicable for the Defence Configuration, Role and Environment (CRE) (and as such may not be entirely applicable for demonstrating compliance to the Defence TCB). There are a number of reasons why this would be the case:

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Regulation	Sub paragraph	Current text	Proposed text
DASR 21	AMC 21.A.20 para 2.d	the Configuration, Role and operating Environment (CRE) applied to the prior certification is understood and any deltas from the intended Defence CRE have been addressed through additional compliance demonstration evidence, or changes to the TCB in accordance with DASR AMC1 to 21.A.17A;	the Configuration, Role and Environment (CRE) applied to the prior certification is understood and any deltas from the intended Defence CRE have been addressed through additional compliance demonstration evidence, or changes to the TCB in accordance with DASR AMC1 to 21.A.17A;
	AMC 21.A.41 [first para]	It is vital to have an understanding of which parts of the aircraft structure and propulsion system are essential for safe flight and therefore could have a significant impact on safety if they were to fail or not perform their intended function. The applicant for a type certificate should identify a list of critical parts, as required by the Type Certification Basis (TCB) and the intended Defence Configuration Role and Environment (CRE), and submit this to the Authority as part of the application.	It is vital to have an understanding of which parts of the aircraft structure and propulsion system are essential for safe flight and therefore could have a significant impact on safety if they were to fail or not perform their intended function. The applicant for a type certificate should identify a list of critical parts, as required by the Type Certification Basis (TCB) and the intended Defence Configuration, Role and Environment (CRE), and submit this to the Authority as part of the application.

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Regulation	Sub paragraph	Current text	Proposed text
DASR 21	AMC 21.A.44(c) [second para]	The periodic assessments undertaken by the MTC holder should ensure that the assumptions made during design and certification that could affect the integrity of structural and propulsion system critical parts (see DASR AMC 21.A.41) remain valid for the Defence Configuration Role and Environment (CRE). Periodic assessments should identify whether there is a need to update the type certificate (including Airworthiness Limitations (AwL)), Instructions for Continuing Airworthiness or monitoring provisions (e.g. life tracking or health monitoring) in order to ensure continued compliance with the TCB. These subsequent updates are separate to the periodic assessment process and should be conducted in accordance with the relevant DASR.	The periodic assessments undertaken by the MTC holder should ensure that the assumptions made during design and certification that could affect the integrity of structural and propulsion system critical parts (see DASR AMC 21.A.41) remain valid for the Defence Configuration, Role and Environment (CRE). Periodic assessments should identify whether there is a need to update the type certificate (including Airworthiness Limitations (AwL)), Instructions for Continuing Airworthiness or monitoring provisions (e.g. life tracking or health monitoring) in order to ensure continued compliance with the TCB. These subsequent updates are separate to the periodic assessment process and should be conducted in accordance with the relevant DASR.
	AMC1 21.A.263(d)(1) para 1 [note]	Note: Ostensibly equivalent relates to having the configuration, role and operating environment predominately the same – where changes between types are:	Note: Ostensibly equivalent relates to having the Configuration, Role and Environment (CRE) predominately the same – where changes between types are:

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DASR CLAUSE: AMC ARO.50.A

CURRENT REGULATION TEXT

Statement of Operating Intent and Usage Approval

1. The Statement of Operating Intent and Usage (SOIU) should have a two stage approval process to ensure it satisfies an acceptable input to type certification and the operational commander's requirements. The approval process should include:

   a. The Authority – (DASA) will endorse and confirm that the SOIU provides sufficient data for a comprehensive aircraft TCB (airworthiness) to be derived.

   b. COMAUSFLT/COMD AVNCOMD/ACAUST will then approve the SOIU as being an accurate reflection of the roles and operational environments that the aircraft will be used in.

SOIU Updates

2. Proposed changes to the role, operating environment and usage defined in the SOIU should be endorsed by DASA to ensure they are compatible with the certified design prior to COMAUSFLT/COMD AVNCOMD/ACAUST approval.

SOIU Content

3. The SOIU provides a description of the roles and operating environment of a Defence aircraft type. The SOIU includes the aircraft's roles as related to its intended operational effect and the physical operating environment within which the aircraft must operate. The SOIU should include the following:

   a. **Role**. Peacetime and warfighting functions/missions.

   b. Physical environment.

   c. Functional environment.

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REVISED REGULATION TEXT

Statement of Operating Intent and Usage Approval

1. The Statement of Operating Intent and Usage (SOIU) should have a two stage approval process to ensure it satisfies an acceptable input to type certification and the operational commander's requirements. The approval process should include:

   a. The Authority – (DASA) will endorse and confirm that the SOIU provides sufficient data for a comprehensive aircraft TCB (airworthiness) to be derived.

   b. COMAUSFLT/COMD AVNCOMD/ACAUST will then approve the SOIU as being an accurate reflection of the roles and environments that the aircraft will be used in.

SOIU Updates

2. Proposed changes to the role, environment and usage defined in the SOIU should be endorsed by DASA to ensure they are compatible with the certified design prior to COMAUSFLT/COMD AVNCOMD/ACAUST approval.

SOIU Content

3. The SOIU should include the following:

   a. **Role**. Peacetime and warfighting functions/missions.

   b. Physical environment.

   c. Functional environment.

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DASR CLAUSE: GM ARO.50.A
CURRENT REGULATION TEXT

1. **Purpose**. The purpose of this regulation is to assure that a SOIU is developed to inform decisions on whether an aircraft design remains safe for operations in the defined roles and operating environments.

2. **Overview**. The SOIU forms a cornerstone of the aircraft Type Certification process. The SOIU contains all the roles and environments in which the aircraft type is intended to operate and the intended usage spectrum used to determine the aircraft and engine structural certification requirements. The SOIU is typically derived during the Defence requirements analysis and/or acquisition phase of aircraft introduction into Defence service. The DASA can assist with a standard template for SOIU. Further detail on SOIU is contained in the DASA Manual.

3. The DASP Glossary definition for the SOIU explains that it is a key document for aviation commanders. It ensures that Flying Management System controls are suitable and sufficient to manage the risk of operating an aircraft that may not have completed full or supplemental Type Certification.

4. The Flying Management System provides the necessary framework of controls and learned culture for an aviation commander to operate a Defence aircraft temporarily outside the approved Configuration, Role and Environment (CRE), and limitations and conditions, to fulfil a non-discretionary activity. These activities are often at an elevated level of risk to aircrew, passengers and the general public. The FMS ensures that risks are eliminated So Far As is Reasonably Practicable (SFARP), and if not possible to do so, minimised SFARP in accordance with the obligations within the Work Health and Safety Act (Cth) 2011.

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REVISED REGULATION TEXT

1. **Purpose**. The purpose of this regulation is to assure that a SOIU is developed to inform decisions on whether an aircraft design remains safe for operations in the defined roles and environments.

2. **Overview**. The SOIU forms a cornerstone of the aircraft Type Certification process. The SOIU contains all the roles and environments in which the aircraft type is intended to operate and the intended usage spectrum used to determine the aircraft and engine structural certification requirements. The SOIU is typically derived during the Defence requirements analysis and/or acquisition phase of aircraft introduction into Defence service. DASA can assist with a standard template for SOIU. Further detail on SOIU is contained in the DASP Manual Vol 3 Chapter 6.1.1 Annex C.

3. The DASP Glossary definition for the SOIU explains that it is a key document for aviation commanders. It ensures that Flying Management System controls are suitable and sufficient to manage the risk of operating an aircraft that may not have completed full or supplemental Type Certification.

4. The Flying Management System provides the necessary framework of controls and learned culture for an aviation commander to operate a Defence aircraft temporarily outside the approved configuration, role, environment, limitations or conditions, to fulfil a non-discretionary activity. These activities are often at an elevated level of risk to aircrew, passengers and the general public. The FMS ensures that risks are eliminated So Far As is Reasonably Practicable (SFARP), and if not possible to do so, minimised SFARP in accordance with the obligations within the Work Health and Safety Act (Cth) 2011.

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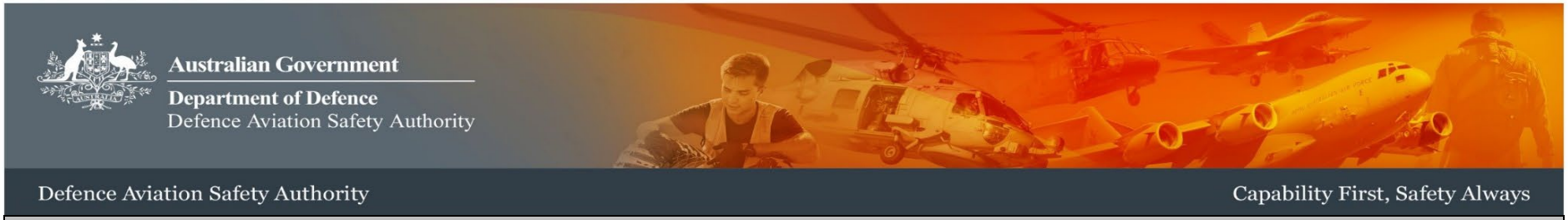

DASR AMENDMENT RECORD
DCP 2024-041

DASR CLAUSE: GM 21.A.239 (c)

RATIONALE FOR CHANGE

The current wording of DASR 21.A.239 requires external organisations providing explosives safety hazard and risk management advice to an MDOA holder are considered a partner or subcontractor. Accordingly, the MDOA holder has obligations to specify the manner in which its design assurance system accounts for the acceptability of the advice provided by these external organisations or specialist personnel within them. With the current organisational structure of Defence, and with the overlap of the Explosives Safety Regulatory Framework (ESRF), a substantial burden is placed on MDOAs to comply with 21.A.239(c) with regards to advice provided by Defence organisations with regard to explosives safety hazard and risk management.

AUS specific additions to GM 21.A.239(c) will provide additional guidance for MDOAs to demonstrate compliance with 21.A.239(c) when it comes to explosives safety advice provided by Defence organisations regulated under the ESRF.

CURRENT REGULATION TEXT

In meeting the requirements of DASR 21.A.239(c) the applicant for a design organisation approval under DASR 21 Section A Subpart J may adopt the following policy:

1. The satisfactory integration of the Partner/Sub-contractor and applicant's design assurance systems should be demonstrated for the activities covered under the applicant's terms of approval.

2. In the event that a Partner/Sub-contractor holds a military design organisation approval (MDOA), then in accordance with DASR 21.A.239(c), the applicant may take this into account in demonstrating the effectiveness of this integrated system.

3. When any Partner/Sub-contractor does not hold a MDOA then the applicant will need to establish to its own satisfaction and the satisfaction of the Authority, the adequacy of that partner's/sub-contractor's design assurance system in accordance with DASR 21.A.243(b).

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REVISED REGULATION TEXT

In meeting the requirements of DASR 21.A.239(c) the applicant for a design organisation approval under DASR 21 Section A Subpart J may adopt the following policy:

1. The satisfactory integration of the Partner/Sub-contractor and applicant's design assurance systems should be demonstrated for the activities covered under the applicant's terms of approval.

2. In the event that a Partner/Sub-contractor holds a military design organisation approval (MDOA), then in accordance with DASR 21.A.239(c), the applicant may take this into account in demonstrating the effectiveness of this integrated system.

3. When any Partner/Sub-contractor does not hold a MDOA then the applicant will need to establish to its own satisfaction and the satisfaction of the Authority, the adequacy of that partner's/sub-contractor's design assurance system in accordance with DASR 21.A.243(b).

4. The Authority will be satisfied that a Partner/Sub-contractor organisation has an acceptable design assurance system in cases where the safety hazard and risk management advice provided by the Partner/Sub-contractor is specifically related to explosives and/or explosive ordnance, and the Partner/Sub-contractor organisation:

    a. is an Australian Defence organisation that provides explosives safety hazard and risk management advice in accordance with *Explosive Safety Regulatory Framework* (ESRF) requirements; and

    b. is one of the organisations listed in DASP Manual Volume 3, Chapter 7.6.6.18 and the applicant can establish that the Partner/Sub-contractor satisfies the elements listed in DASP Manual Volume 3, Chapter 7.6.6.19; or

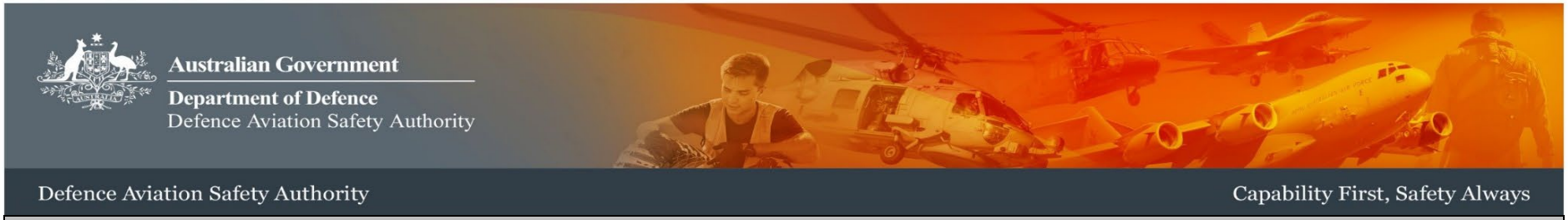
    c. the applicant can establish that the Partner/Sub-contractor satisfies the elements listed in DASP Manual Volume 3, Chapter 7.6.6.19.

5. The design assurance system should document the protocols by which advice specifically related to explosives and/or explosive ordnance is obtained. The protocols should include:

    a. the people or positions in the applicant's organisation that can seek advice from Partner/Sub-contractor;

    b. a mechanism through which the applicant explains and documents the reasoning for seeking the advice and how the advice will be used; and

    c. the people or positions in the Partner/Sub-contractor organisation that can provide advice on behalf of their organisation.



DASR AMENDMENT RECORD
DCP 2024-040

DASR CLAUSE: GM 21.A.101

RATIONALE FOR CHANGE

GM 21.A.101 Appendix E was incorporated into EMAR 21 with the Edition 2.0 update, however it was left out of the DASR change that introduced GM 21.A.101 while an assessment was made as to whether the content was compatible with the requirements of the WHS Act when assessing and addressing risk.

In keeping with maintaining the alignment between DASR 21 and EMAR 21, Appendix E will also be incorporated after having been assessed as compatible with WHS Act requirements.

CURRENT REGULATION TEXT

1.4.10 Appendix E is Reserved.

3.10.1 Do the latest standards contribute materially to the level of safety?

Applicants could consider compliance with the latest standards to 'not contribute materially to the level of safety' if the existing type design and/or relevant experience demonstrates a level of safety comparable to that provided by the latest standards. In cases where design features provide a level of safety greater than the existing certification basis, applicants may use acceptable data, such as service experience, to establish the effectiveness of those design features in mitigating the specific hazards addressed by a later amendment. Applicants must provide sufficient justification to allow the Authority to make this determination. This exception could be applicable in the situations described in the paragraphs below.

Note: Compliance with later standards is not required where the amendment is of an administrative nature and made only to correct inconsequential errors or omissions, consolidate text, or to clarify an existing requirement.

3.10.2.3 (Reserved)

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REVISED REGULATION TEXT

1.4.10 Appendix E ~~is Reserved~~ provides reference and military specific considerations for evaluating the 'impracticality' exception in the requirement.

3.10.1 Do the latest standards contribute materially to the level of safety?
Applicants could consider compliance with the latest standards to 'not contribute materially to the level of safety' if the existing type design and/or relevant experience demonstrates a level of safety comparable to that provided by the latest standards. In cases where design features provide a level of safety greater than the existing certification basis, applicants may use acceptable data, such as service experience, to establish the effectiveness of those design features in mitigating the specific hazards by a later amendment. Applicants must provide sufficient justification to allow the Authority to make this determination. An acceptable means of compliance is described in appendix E of this GM. Justification is sufficient when it provides a summary of the evaluation that supports the determination using an agreed evaluation method, such as that in appendix E of this GM. This exception could be applicable in the situations described in the paragraphs below.

Note: Compliance with later standards is not required where the amendment is of an administrative nature and made only to correct inconsequential errors or omissions, consolidate text, or to clarify an existing requirement.

3.10.2.3 ~~(Reserved)~~ Appendix E of this GM provides additional guidance and examples for evaluating the impracticality of applying the latest airworthiness codes or standards to a changed product for which compliance with the latest airworthiness codes or standards would contribute materially to the level of safety of the product.

DASR CLAUSE: Appendix E to GM 21.A.101 Procedure for evaluating material contribution to safety or impracticality of applying latest airworthiness codes to a changed product

RATIONALE FOR CHANGE

GM 21.A.101 Appendix E was incorporated into EMAR 21 with the Edition 2.0 update, however it was left out of the DASR change that introduced GM 21.A.101 while an assessment was made as to whether the content was compatible with the requirements of the WHS Act when assessing and addressing risk.

In keeping with maintaining the alignment between DASR 21 and EMAR 21, Appendix E will also be incorporated after having been assessed as compatible with WHS Act requirements.

CURRENT REGULATION TEXT

(Reserved)

REVISED REGULATION TEXT
~~(Reserved)~~ Appendix E to EASA GM 21.A.101 as per ED Decision 2019/018/R proposes a procedure for evaluating material contribution to safety or impracticality of applying latest airworthiness codes to a changed product and could be applied for military products, regardless of the airworthiness codes or standards used. The procedure is to aid, not replace, good judgement in determining what is reasonably practicable in accordance with the relevant obligations under the *Work Health and Safety Act 2011*.

DCP 2024-035: DASR 21 incorporation of Operational Suitability Data (OSD) based on EMAR 21 Ed 2.0
Proposed Changes to DASR21

Notes to readers:

This document shows the proposed changes to the AMC and GM wording as follows:

a. Highlighted text marks an addition.
b. ~~Strikethrough~~ formatting marks removal.
c. Green text marks Australian-specific text.
d. new EMAR Ed 2.0 (AMC/GM Ed 2.1) based text that will NOT be incorporated is ~~highlighted grey with strikethrough.~~

This document does not contain the affected subparts in their entirety and only contains the sections that contain proposed changes. The changed sections have been marked by their header AMC/GM number and split using "…" to represent unchanged text.

Where unchanged text spans across AMC/GMs, the delineation is further marked by a solid black line to denote a more significant gap between the changed sections.

GENERAL

DASR 21.1 - General

(k) "Operational Suitability Data (OSD)" means data, which are part of an aircraft type-certificate, restricted type-certificate or supplemental type-certificate, which may consist ~~consisting of all~~ of the following:

(i) the minimum syllabus of pilot type rating training, including determination of type rating;
(ii) the definition of scope of the aircraft validation source data to support the objective qualification of simulators or the provisional data to support their interim qualification;
(iii) the minimum syllabus of maintenance certifying staff type rating training, including determination of type rating;
(iv) determination of type or variant for cabin crew and type specific data for cabin crew;
(v) the master minimum equipment list.

DASR 21 SUBPART A

AMC 21.A.4 - Transferring of information on eligibility and approval status from the design organisations to production organisations

Where there is a need to provide (normally outside the design organisation) a visible statement of approved design data or airworthiness, operational suitability or environmental protection data associated with the approved design data, the following minimum information should be provided. The need for a visible statement may be in relation to Company holding a military production organisation approval (MPOA) in relation to DASR 21.A.163(c).
The procedures related to the use of forms or other electronic means to provide this information should be agreed with the Authority.

Information to be provided:
Company Name: the name of the responsible design organisation (MTC, MSTC, approval of repair or minor change-design, AUSMTSO authorisation holder) issuing the information.
Date: the date at which the information is released.
Eligibility: indicate the specific products or articles, in case of AUSMTSO authorisation, for which data have been approved.
Identification: the part number of the part or appliance. Preference should be given to the use of the Illustrated Parts Catalogue (IPC) designation. Alternatively the reference to the instruction for continuing airworthiness could be stated. Marking requirements of DASR 21 Section A Subpart Q should be taken into account.
Description: the name or description of the part or document should be given. In the case of a part or appliance preference should be given to use of IPC designation. The description is to include reference to any applicable AUSMTSO authorisation or AUSMPA marking, or previous national approvals still valid.
Purpose of data: the reason for the provision of the information should be stated by the design approval holder.
Examples:

a. Provision of approved design data to a production organisation to permit manufacture (AMC1 to 21.A.133(b) and AMC1 to 21.A.133(c))
b. Information regarding eligibility for installation (replacement parts, repair, modification, etc.)
c. Direct Delivery Authorisation (AMC1 to 21.A.133(b) and AMC1 to 21.A.133(c)).

If the data is in support of a change or repair, then reference to the aircraft level approval should be given (make reference to the approved MSTC, change or repair).
Limitations/Remarks: state any information, either directly or by reference to supporting documentation that identifies any particular data or limitations (including specific importing requirements) needed by a production organisation to complete Block 12 of the DASR Form 1— Authorised Release Certificate.
Approval: provide reference information related to the approval of the data (Authority document or MDOA privilege).
Authorised signature: name and hand-written normal or electronic signature of a person who has written authority from the design organisation, as indicated in the procedures agreed with the Authority.

DASR 21 SUBPART B

AMC 21.A.14(b) - Alternative procedures

…

3.2.3 – ~~Airworthiness classification~~Considerations of effects of the change
The procedure should show how the effects on airworthiness, operational suitability or environmental protection (where applicable) are analysed, from the very beginning, by reference to the applicable airworthiness requirements.
If no specific airworthiness requirements are applicable to the change, the above review should be carried out at the level of the part or system where the change is integrated and where specific airworthiness requirements are applicable.

…

3.3 Approval of changes
3.3.1 – Content
The procedure should address the following points:

- compliance documentation;
- approval process;
- authorised signatories.

3.3.2 – Compliance documentation

For major changes and those minor changes where additional work to demonstrate compliance with the applicable type-certification basis, operational suitability data certification basis, and environmental protection requirements (hereinafter referred to as the 'certification basis') is necessary, compliance documentation should be established in accordance with DASR AMC 21.A.20(c).

…

4. Issue of data and information (including instructions) to owners, operating organisations and others required to use the data and information

4.1 General

~~(Reserved)~~ Data and information include the operational suitability data.

4.2 Data related to changes

The data and information (including instructions) issued by the holder of a (military) design approval (an MTC, MSTC, approval of a change, approval of repair design) are intended to provide the owners of a product with all necessary data to implement a change or repair on the product, or to inspect it. The data and information (including instructions) may be issued in a format of a Service Bulletin as defined in S1000D Chapters, or in ~~S~~structural ~~R~~repair ~~M~~manuals, Maintenance Manuals, Engine and Propeller Manuals, etc.

The preparation of this data involves design, production and inspection. The three aspects should be properly addressed and a procedure should exist.

21.A.15 - Application

…

(b) An application for a type-certificate or restricted type-certificate shall include, as a minimum, preliminary descriptive data of the product, the intended use of the product and the kind of operations for which certification is requested. In addition, it shall include, or be supplemented after the initial application, a certification programme for the demonstration of compliance in accordance with DASR 21.A.20, consisting of:

…

4. a proposal for the initial type-certification basis, operational suitability data certification basis and environmental protection requirements, prepared in accordance with the requirements and options specified in DASR 21.A.17A, 21.A.17B and 21.A.18;

…

6. a proposal for the assessment of the meaningful groups of compliance demonstration activities and data, addressing the likelihood of an unidentified non-compliance with the type-certification basis, operational suitability data certification basis or environmental protection requirements and the potential impact of that non-compliance on product safety or environmental protection. The proposed assessment shall take into account at least the elements set out in Section 3 of AMC 21.A.15(b)(6) - Level of Involvement. Based on this assessment, the application shall include a proposal for the involvement of the Authority in the verification of the compliance demonstration activities and data; and

…

~~(d) (Reserved)~~

(d) An application for a type-certificate or restricted type-certificate for an aircraft shall include, or be supplemented after the initial application, an application supplement for approval of the operational suitability data.

…

(f) In the case where a type-certificate or restricted type-certificate has not been issued, or it is evident that it will not be issued, within the time agreed in point (e), the applicant shall apply for an extension of the validity of the application and comply with any changes to the type-certification basis, operational suitability data certification basis and environmental protection requirements, as established and notified by the Authority in accordance with DASR 21.A.17A, DASR 21.A.17B and DASR 21.A.18 for a new date that is in compliance with the time period established under (e).

~~GM 21.A.15(a) - Application for a Military Type Certificate~~

~~When the application for an MTC (including MRTC or MSTC) is based on a Type Certificate issued under a different legal framework (such as EASA), such a Type Certificate may contain OSD as approved data. The OSD available will be dependent of the class of the Aircraft in the following areas:~~

- ~~Minimum syllabus of pilot type rating training, including determination of type rating.~~
- ~~Definition of scope of the aircraft validation source data to support the objective qualification of simulator(s) associated to the pilot type rating training, or provisional data to support their interim qualification.~~
- ~~Minimum syllabus of maintenance certifying staff type rating training, including determination of type rating.~~
- ~~Determination type specific data for cabin crew training.~~
- ~~The master minimum equipment list.~~
- ~~Other type-related operational suitability elements.~~

~~The application for approval of such OSD will lead to the validation of this data in the scope of the military type definition and military operation of the aircraft, taking into account the difference in the assumptions that were the basis for the previously approved OSD, as well as the compatibility with Flight Crew (including Cabin Crew with airworthiness tasks such as Loadmaster) training and Maintenance Certifying Staff training.~~

~~AMC1 21.A.15(a) – Application for approval of Operational Suitability Data (OSD)~~

~~Where Operational Suitability Data (OSD) is already available for the product and/or where it is required by national regulations, an application under Subpart B, D or E should be supplemented by an application for approval of OSD.~~

AMC 21.A.15(b) - Content of the certification programme

The certification programme is a document that allows the applicant and the Authority to manage and control the evolving product type design or Operational Suitability Data, as well as the process of compliance demonstration by the applicant and its verification by the Authority when required.
The certification programme may be based on modules that may be updated independently.
The level of detail in the certification programme depends on the complexity of the product and its intended use.
In particular, the following information should typically be expected:
General

- Identification of the key organisations (e.g. Acquisition Project Office, prime design organisation) and of the relevant personnel who make decisions affecting airworthiness, operational suitability and environmental protection, and who will interface with the Authority, unless otherwise identified to the Authority (e.g. within the MDOA procedures).
- Identification of any prior certification intended to be leveraged, including details of which TCB elements will leverage prior certification, and how compliance will be demonstrated when prior certification can only be partially leveraged.
- A project schedule including major milestones.
- Subcontracting arrangements for design, operational suitability, environmental protection and/or production as well as military design organisation approval (MDOA) responsibility sharing.

…

AMC 21.A.15(b)(6) - Level of Involvement

…

3.1. LoI determination at CDI level

The determination of the Authority's LoI may be performed at the level of the CDI (please refer to AMC 21.A.15(b)(5)).

The applicant should demonstrate that all affected elements of the type-certification basis as specified in DASR 21.A.17A, of the OSD certification basis as specified in DASR 21.A.17B, and of the environmental protection requirements as specified in DASR 21.A.18, the corresponding means and methods of compliance, as well as the corresponding certification activities and data, are fully covered by the proposed CDIs. If the provided data does not clearly show that this is the case, the applicant should clearly state to the Authority that all the above-mentioned elements are fully covered.

Note: There could be different ways to 'clearly show' that all the elements of the certification basis are included in at least one CDI. For instance, this could be achieved by means of a 'CDI reference' column added in the table that lists all the elements of the certification basis.

GM 21.A.15(c) - Updates to the certification programme

DASR 21.A.15(b) recognises that the initial submission of the certification programme may not be fully complete, e.g. due to schedule constraints of the design, analysis and testing activities. Furthermore, even if the initial submission of the certification programme is complete, it may be necessary to amend it throughout the duration of the project.

The certification programme should be updated and resubmitted to the Authority. In particular, updates to the following elements should be provided:

~~1.~~ – any complementary information that was not included in the initial submission of the certification programme;

~~2.~~ – any change in the intended use or kind of operations of the product itself, or of the aircraft on which the product is installed;

~~3.~~ – a change in the key characteristics of the product such as but not limited to any declared limits that are intended to be recorded in the type certificate data sheet (TCDS);

~~4.~~ – any change in the product design or its characteristics that may affect the criteria used to assess the likelihood of an unidentified non-compliance with the type-certification basis, operational suitability data (OSD) certification basis or the environmental protection requirements, including the potential impact of that non-compliance on product safety or environmental protection, as defined in DASR 21.A.15(b)(6);

~~5.~~ – any change to the initial type-certification basis, OSD certification basis or environmental protection requirements, as applicable to the product, regardless whether the change is initiated by the Authority or by the applicant;
~~6.~~ – any change in the breakdown of the certification programme into compliance demonstration items (CDIs) or in the content of those CDIs;
~~7.~~ – any change in the proposed means of compliance, including its/their methodology;
~~8.~~ – any change in the structure of compliance documents that may affect the determination of the Authority's level of involvement (LoI), based on the criteria in DASR AMC 21.A.15(b)(6);
~~9.~~ – any relevant change to the military design organisation approval (MDOA) holder's personnel (and military design organisation (MDO) suppliers) who are involved in the project; and
~~10.~~ – any changes to the schedule that impact on the LoI of the Authority.
Following each update to the certification programme as submitted by the applicant, the Authority may update the determination of its LoI in accordance with AMC to DASR 21.A.15(b)(6).

GM1 21.A.15(d) - Operational Suitability Data (OSD)

Based on the OSD-Elements defined in DASR 21.1(k) any ~~extension to an~~ application for an MTC or MRTC should cover the following areas, also referred to as OSD-constituents, as applicable:

1. (Reserved)~~the minimum syllabus of pilot type rating training, including determination of type rating~~;
2. (Reserved)~~the definition of scope of the aircraft validation source data to support the objective qualification of simulator(s) associated to the pilot type rating training, or provisional data to support their interim qualification~~;
3. (Reserved)~~the minimum syllabus of maintenance certifying staff type rating training, including determination of type rating~~;
4. (Reserved)~~determination of type or variant for (cabin and mission) crew and type specific data for (cabin and mission) crew~~;
5. the master minimum equipment list; and
6. other type-related operational suitability elements (where applicable).

General:
~~In the application extension for approval of operational suitability data, the MTC applicant may apply for the approval of different types of operations~~. If the aircraft is certificated for certain types of operations (e.g. ~~ETOPS~~DLRO, RNP, LVO, LLF, AAR), the impact on the OSD constituents should be addressed.
The five defined OSD constituents are listed in (1) to (5) above. They may not be all applicable to all aircraft types. The content of each of the OSD constituents is defined in the applicable airworthiness codes or standards, such as EASA certification specifications and will be approved under a military type certificate (MTC), military supplemental type certificate (MSTC) or change to those certificates.
(Reserved) ~~Regarding the determination of type or variant (4):~~
~~The criteria for the determination whether an aircraft with a new military type certificate (MTC) is considered a new type or is a variant with reference to another aircraft type from the same MTC holder for the purpose of the specific OSD constituent are provided in applicable airworthiness codes or standards for OSD, such as EASA certification specifications for maintenance certifying staff data, flight crew data and cabin crew data.~~
Regarding other type-related operational suitability elements (6)
In addition to the five defined OSD constituents, there may be other data which could qualify as OSD when it is relevant for the operational suitability of the aircraft type, is not included in the type design and is specific to that aircraft type.
The term 'element' as used in this GM carries its normal dictionary meaning, i.e. part, portion, component, etc.

In order for this 'element' to qualify as 'other type-related operational suitability element', the following conditions should apply:

- it concerns data (not the approval of equipment);
- the data is type specific;
- the data is not already part of the 'classic' part of the military type certificate (MTC) (such as Airworthiness Limitations Section (ALS), aircraft flight manual (AFM), etc.);
- the data is relevant for the safe operation of the aircraft type; and
- conditions/criteria for the approval of the data can be established.

If data can be included in one of the five defined OSD constituents, it does not qualify as an additional operational suitability element. For example, the pilot training necessary to introduce an electronic flight bag (EFB) can be included in the OSD constituent flight crew data (FCD), and is not considered an additional operational suitability element.

GM2 21.A.15(d) - Application for a Military Type Certificate(AUS)

When the application for an MTC (including MRTC or MSTC) is based on a Type Certificate issued under a different legal framework (such as EASA), such a Type Certificate may contain OSD as approved data. The OSD available will be dependent of the class of the Aircraft in the following areas:

- Minimum syllabus of pilot type rating training, including determination of type rating.
- Definition of scope of the aircraft validation source data to support the objective qualification of simulator(s) associated to the pilot type rating training, or provisional data to support their interim qualification.
- Minimum syllabus of maintenance certifying staff type rating training, including determination of type rating.
- Determination type specific data for cabin crew training.
- ~~The master minimum equipment list.~~
- Other type-related operational suitability elements.

The application for approval of such OSD will lead to the validation of this data in the scope of the military type definition and military operation of the aircraft, taking into account the difference in the assumptions that were the basis for the previously approved OSD, as well as the compatibility with Flight Crew (including Cabin Crew with airworthiness tasks such as Loadmaster) training and Maintenance Certifying Staff training.

AMC 21.A.15(d) - Application for approval of Operational Suitability Data (OSD) (AUS)

Where Operational Suitability Data (OSD) is already available for the product, an application under Subpart B, D or E should be supplemented by an application for approval of OSD.

GM 21.A.15(e) and (f) - Period of validity for the application for a Military Type Certificate (MTC) or Military Restricted Type Certificate (MRTC)

DASR 21.A.15(e) establishes a maximum period of validity for an application for an MTC or an MRTC. During this period, the type-certification basis, operational suitability data (OSD) certification basis, and the environmental protection requirements (hereinafter referred to as the 'certification basis'), established in accordance with DASR 21.A.17A, DASR 21.A.17B and DASR 21.A.18, remain effective.

However, the period of validity of the certification basis is limited so that the standards established as part of the certification basis at the time of application do not become outdated.
For various reasons (e.g. development, business, commercial, etc.), the applicant may not be able to complete the certification within the established time limit. In this case, the applicant can apply for an extension of the initial application (see DASR 21.A.15(f)):
In this case, the applicant proposes a 'new target date' to the Authority for the issuance of the certificate. Respecting the time limits established under 21.A.15(e), the Authority may then use that date to notify airworthiness codes and standards that will become the reference for a revised certification basis.

21.A.17B - ~~Reserved~~ Operational suitability data certification basis for an aircraft type-certificate or restricted type-certificate (AUS)

~~The Authority shall establish the operational data certification basis and notify it to the applicant for an aircraft type-certificate or restricted type-certificate.~~ The operational suitability data certification basis shall consist of:

(a) the airworthiness codes for operational suitability data ~~designated by the Authority out of those applicable to the aircraft at the date of the application or at the date of the application supplement for operational suitability data, whichever date is later~~ established according to DASR 21.A.16A from those applicable to the product at the date of application for that certificate, unless:

1. the applicant chooses to comply, or in accordance with DASR 21.A.15(f) is required to comply with requirements of the airworthiness codes which became applicable after the date of the application; if an applicant chooses to comply with an airworthiness code which became applicable after the date of the application, the ~~Authority shall include in the~~ type-certification basis shall include any other requirements of the airworthiness code that ~~is~~are directly related; or
2. the Authority accepts or prescribes alternative means to demonstrate compliance with the relevant essential requirements of Annex A to DASP Manual Volume 1 Chapter 4 ~~the Basic Framework Document.~~.

(b) any special condition prescribed by the Authority in accordance with DASR 21.A.16(a).

AMC 21.A.17B - Applicable OSD Constituents (AUS)

The minimum operational suitability data constituents expected to be incorporated into the operational suitability data certification basis are:

1. (Reserved);
2. (Reserved);
3. (Reserved);
4. (Reserved);
5. the master minimum equipment list.

Operational suitability data constituents not listed may be included in the operational suitability data certification basis if voluntarily elected by the applicant. Once included in the operational suitability data certification basis and approved as OSD, the applicant is required to maintain that OSD for the life of the type.

21.A.20 - Demonstration of compliance with the type certification basis, operational suitability data certification basis and environmental protection requirements

(a) Following the acceptance of the certification programme by the Authority, the applicant shall demonstrate compliance with the type-certification basis, operational suitability data certification basis and environmental protection requirements, as established in accordance with DASR 21.A.17A, DASR 21.A.17B and DASR 21.A.18, and shall provide the Authority with the means by which such compliance has been demonstrated.

…

(d) After completion of all demonstrations of compliance in accordance with the certification programme, including any inspections and tests in accordance with DASR 21.A.33, and after all flight tests in accordance with DASR 21.A.35, the applicant shall declare that:

1. it has demonstrated compliance with the type-certification basis, operational suitability data certification basis and environmental protection requirements, as established under DASR 21.A.17A, 21.A.17B and 21.A.18 following the certification programme as accepted by the Authority; and
2. no feature or characteristic has been identified that may make the product unsafe for the uses for which certification is requested.

GM 21.A.20 - Compliance demonstration process

…

'As applicable to the change' means that:

~~1.~~ - The certification programme to be followed is the one prepared for the major change or MSTC in accordance with DASR 21.A.93, as accepted by the Authority; and

~~2.~~ - The certification basis (consisting of the type-certification basis, operational suitability data (OSD) certification basis, and the environmental protection requirements) is the one established in accordance with DASR 21.A.101.

…

GM1 21.A.20 - Compliance with the type-certification basis, operational suitability data certification basis and environmental protection requirements (where applicable) (AUS)

…

GM2 21.A.20 - Demonstration of compliance with the type certification basis, operational suitability data certification basis and environmental protection requirements (AUS)

…

AMC 21.A.20(c) - Compliance documentation

1. Compliance documentation comprises one or more test or inspection programmes/plans, reports, drawings, design data, specifications, calculations, analyses, etc., and provides a record of the means

by which compliance with the applicable type-certification basis, the operational suitability data certification basis and environmental protection requirements is demonstrated.

…

21.A.21 - Requirements for the issuance of a type-certificate or restricted type-certificate

(a) In order to be issued a product type-certificate or, when the aircraft does not meet the essential requirements of Annex A to DASP Manual Volume 1 Chapter 4 an aircraft restricted type-certificate, the applicant shall:

1. demonstrate its capability in accordance with DASR 21.A.14;
2. comply with DASR 21.A.20;
3. demonstrate that the engine and propeller, if installed in the aircraft:
   ~~a)~~(A) have a type-certificate issued in accordance with this DASR; or
   ~~b)~~(B) have been demonstrated to be in compliance with the aircraft type-certification basis and the environmental protection requirements established by the Authority as necessary to ensure the safe flight of the aircraft.

(b) By way of exception from (a)(2), at the applicant's request included in the declaration referred to in 21.A.20(d), the applicant is entitled to have the aircraft type-certificate or restricted type-certificate issued before the applicant has demonstrated compliance with the operational suitability data certification basis, provided that the applicant demonstrates such compliance before the date at which those data are to be actually used.

GM 21.A.21(b), 21.A.95(c), 21.A.97(c) and 21.A.115(c) - Approval of operational suitability data (OSD)

It is acknowledged that it may not always be possible to have the OSD available on the date of the issue of the (restricted) type-certificate ((R)TC), change approval or supplemental type certificate (STC). The exception provided by DASR 21.A.21(b), DASR 21.A.95(c), DASR 21.A.97(c) and, DASR 21.A.115(c) is intended for that case. The (R)TC, change approval, or STC, can be issued before compliance with the OSD certification basis has been demonstrated.

However, the OSD needs to be approved before the data is to be used by a training organisation for the purpose of obtaining a licence, rating, or attestation, or by an operating organisation required to use such data. This is normally done before the entry into service of the first aircraft by the operating organisation but it could also be done later for some of the OSD constituents, such as the definition of the scope of validation source data to support the objective qualification of a simulator, which should only be available when a simulator has to be qualified.

The exception provided in 21.A.21(b), DASR 21.A.97(c), DASR 21.A.115(c) is applicable to all major changes to an MTC, so it is also applicable to minor design changes when triggering a major master minimum equipment list (MMEL) change, as well as to changes in which at least one of the OSD constituent changes is major.

GM 21.A.35(b)(2) – Objective and Content of Function and Reliability Testing

1. **Objective**

The objective of this testing is to expose the aircraft to the variety of uses, including training, that are likely to occur when in routine service to provide an assurance that it performs its intended functions to the standard required for certification and should continue to do so in service.

2. **Content of function and reliability testing**

The testing should cover both routine operations and some simulation of abnormal conditions. The details of the programme should be agreed with the Authority prior to commencement of testing. It may be possible to combine this testing with any required to demonstrate compliance with the applicable type-certification basis or certification basis for operational suitability data. This will be agreed on a case-by-case basis with the Authority.

Where possible, testing conditions should be defined with the co-operation of an operating organisation.

A substantial proportion of the flying should be on a single aircraft. The flying should be carried out to a continuous schedule on an aircraft that is very close to the final type design, operated as though it were in service and should include a range of representative ambient operating conditions and airfields.

GM 21.A.M42 - Integration

The following principles of military type-certification should be applied when determining the responsibilities for integration.

(a) The certification of products, including their parts and appliances, is based on the demonstration of compliance (refer to DASR 21.A.20 and 21.A.303) with the applicable type-certification basis (DASR 21.A.17A), the certification basis for operational suitability data (DASR 21.A.17B) and the specified environmental protection requirements (DASR 21.A.18).

1. The responsibility for the integration of products installed on an aircraft follows the hierarchy as specified in DASR 21.A.21(a)(3);
2. The responsibility for the certification and integration of Parts and Appliances (refer also to DASR 21.A.303(a)), which are to be approved under the procedures of Subparts B or D, lies in principle with the type certificate holder of the respective product;
3. The responsibility for the certification and integration of a part of a product covered by a supplemental type-certificate remains with the holder of the supplemental type-certificate.

(b) The approval of parts and appliances within the scope of an Australian Military Technical Standard Order Authorisation (AUSMTSOA) according to the procedures of Subpart O (refer to DASR 21.A.303(b)) is based on the demonstration of compliance with the specified technical performance and airworthiness requirements by the respective manufacturer / holder of the AUSMTSO authorisation. The responsibility for integration of these items on the aircraft lies with the aircraft type certificate holder by demonstrating that the aircraft, with any generic article authorised to the same technical and airworthiness standards is and remains compliant with the applicable type-certification basis, the certification basis for operational suitability data and the specified environmental protection requirements.

21.A.44 - Obligations of the holder

Each holder of a type-certificate or restricted type-certificate shall:

(a) Undertake the obligations laid down in DASR 21.A.3A, DASR 21.A.3B, DASR 21.A.4, DASR 21.A.55, DASR 21.A.57, ~~and~~ DASR 21.A.61 and DASR 21.A.62; and, for this purpose, shall continue to meet the requirements of DASR 21.A.14;

…

21.A.55 - Record Keeping

All relevant design information, drawings and test reports, including inspection records for the product tested, shall be held by the type-certificate or restricted type-certificate holder at the disposal of the Authority and shall be retained in order to provide the information necessary to ensure the continued airworthiness, continued validity of the operational suitability data and compliance with applicable environmental protection requirements of the product.

21.A.57 - Manuals

The holder of a type-certificate or restricted type-certificate shall produce, maintain and update master copies of all manuals required by the applicable type-certification basis, the applicable operational suitability data certification basis and environmental protection requirements for the product, and provide copies, on request, to the Authority.

21.A.62 - ~~Reserved~~Availability of operational suitability data

The holder of the type-certificate or restricted type-certificate shall make available:

(a) at least one set of complete operational suitability data prepared in accordance with the applicable operational suitability certification basis, to all known operators of the aircraft, before the operational suitability data must be used by a training organisation or operator; and

(b) any change to the operational suitability data to all known operators of the aircraft; and

(c) on request, the relevant data referred to in (a) and (b) above, to:

1. the competent authority responsible for verifying conformity with one or more elements of this set of operational suitability data; and
2. any person or organisation required to comply with one or more elements of this set of operational suitability data.

GM to 21.A.62, 21.A.108 and 21.A.120B - Availability of Operational Suitability Data

(a) When making data available, the holder of the design approval (MTC, change approval, MSTC) should take into account the applicable security laws.

(b) When making data available, the holder of the design approval can impose conditions addressing the intellectual property nature of the data.

DASR 21 SUBPART D

GM 21.A.90A - Scope

The term 'changes to the type certificate' is consistently used in DASR 21 Section A Subpart D and E, as well as in the related AMC and GM. This term does not refer to changing the document that reflects the Military Type Certificate (MTC) but to the elements of the MTC as defined in DASR 21.A.41. It means that the processes for the approval of changes, as described in the said two Subparts, do not only apply to changes to the type design, but may also apply to changes to:

- the operating limitations;
- the type certificate data sheet (TCDS) for airworthiness and, where applicable, emissions;
- the applicable type-certification basis and environmental protection requirements with which the applicant has to demonstrate compliance;
- any other conditions or limitations prescribed for the product by the Authority ~~and~~;
- the applicable operational suitability data (OSD) certification basis;
- the OSD; and
- where applicable, the TCDS for noise.

NOTE: OSD is only applicable to aircraft TCs and not to engine or propeller TCs. Therefore, changes to OSD are only relevant for changes to aircraft TCs.

21.A.91 - Classification of changes to a type-certificate

Changes to a type-certificate are classified as minor and major. A 'minor change' has no appreciable effect on the mass, balance, structural strength, reliability, operational characteristics, operational suitability data, or other characteristics affecting the airworthiness of the product or its environmental characteristics. Without prejudice to DASR 21.A.19, all other changes are "major changes" under this Subpart. Major and minor changes shall be approved in accordance with DASR 21.A.95 or DASR 21.A.97 as appropriate, and shall be adequately identified.

GM 21.A.91 - Classification of changes to a Military Type Certificate (MTC)

…

3.3 Classification Process (see diagram in Appendix A to GM 21.A.91)

DASR 21.A.91 requires all changes to be classified as either major or minor, using the criteria of DASR 21.A.91 and the complementary guidance of paragraph 3.4.

…

3.4 Complementary guidance for classification of changes

A change to the MTC is judged to have an 'appreciable effect on the mass, balance, structural strength, reliability, operational characteristics, noise, fuel venting, exhaust emission, operational suitability or other characteristics affecting the airworthiness, or environmental protection, or operational suitability of the product' and, therefore, should be classified as major, in particular but not only, when one or more of the following conditions are met:

(a) Where the change requires an adjustment of the type-certification basis or the OSD certification basis (such as special conditions, equivalent safety findings or exceptions) other than electing to comply with airworthiness requirements that are derived from a later amendment to an airworthiness code;

…

3.5 ~~(Reserved)~~ Complementary guidance on the classification of changes to OSD

This paragraph provides firstly general guidance on minor OSD change classification, and secondly additional guidance specific to each OSD constituent.

Changes to OSD are considered minor when they:

- incorporate optional information (representing improvements/enhancements);
- provide clarifications, interpretations, definitions or advisory text; or
- do not change the intent of the OSD document, e.g. changes to:
    - titles, numbering, formatting, applicability;
    - order, sequence, pagination; or
    - sketches, figures, units of measurement, and correction of editorial mistakes such as~~:~~ spelling~~;~~ or reference numbers.

Given the structure and individual intent of the separate OSD constituents, the interpretation of 'appreciable' is also affected by the specific nature of the applicable airworthiness codes or standards (e.g. EASA certification specifications (CS)) for that constituent. Therefore, specific guidance on each of the OSD constituents should be consulted. The guidance listed in (a) to (e) below assumes that EASA CS-MMEL, CS-FCD, CS-CCD, CS-SIMD and CS-MCSD are used. It should be adopted for other OSD specific airworthiness codes or standards.

(a) Master minimum equipment list (MMEL)

(1) A change to the MMEL is judged to have an 'appreciable effect on the operational suitability of the aircraft' and, therefore, should be classified as major, in particular but not only when one or more of the following conditions are met:

(i) where the change requires an adjustment of the OSD certification basis;

(ii) where the applicant proposes changes to the means of compliance with the requirements used for the OSD certification basis (i.e. MMEL safety methodology);

(iii) where the extent of substantiation data and the degree to which the substantiation data has to be assessed and evaluated is considerable, in particular but not only when:

(A) the substantiation data involving the review of failure conditions that are classified as hazardous or catastrophic has to be evaluated;

(B) the assessment of the failure effects (including next worst failure/event effects) on crew workload and the applicable crew procedures has to be evaluated; or

(C) the capability of the aircraft to perform types of operation (e.g. ~~extended-range twin operations (ETOPS)~~Defence Long Range Operations (DLRO), instrument flight rules (IFR)) under MMEL is extended.

(2) A change to the MMEL is judged not to have an 'appreciable effect on the operational suitability of the aircraft' and, therefore, should be classified as minor, in particular but not only when one or more of the following conditions are met:

Modifications to an existing item when:

(i) the change only corresponds to the applicability of an item for configuration management purposes;

(ii) the change corresponds to the removal of an item;

(iii) the change corresponds to the increase in the number of items required for dispatch; and

(iv) the change corresponds to a reduction in the rectification interval of an item.

Addition of a new item when:

(v) it is considered as non-safety-related (refer to CS-MMEL, GM2 MMEL.110); or

(vi) it is indicated as eligible for minor change classification in 1 to GM1 CS-MMEL-145.

(b) Flight crew data (FCD)

(1) FCD change related to change to the type design

When classifying the FCD change as minor or major, the method of CS-FCD, Subpart D could be used, using the following steps.

(i) An analysis should be performed to assess the change impact on the FCD through the allocation of difference levels realised with operator difference requirement (ODR) tables as per CS FCD.400. In this case, the base aircraft is the aircraft without the type design change, whereas the candidate aircraft is the aircraft which includes the type design change.

(A) If a no more than level B difference is assigned for training, checking and currency for the candidate aircraft, the related FCD change should be classified as minor.

(B) If a difference level C, D or E for training, checking and currency is assigned to the candidate aircraft, the related FCD change should be classified as major.

(ii) Notwithstanding the above, the change to FCD should be classified as major when a T1 or T2 test is found necessary by the applicant to confirm that the aircraft with the type design change is not a new type for pilot type rating.

(2) Stand-alone changes to FCD are not related to any type design changes. They may be triggered for example by in-service experience or by the introduction of data at the request of the applicant after type certification.

(i) Introduction of credits in training, checking or currency should be classified as major. Example: addition of further-differences training, common take-off and landing credits, etc.

(ii) Stand-alone changes to FCD that correspond to a change of the intent of a data should be classified as major. Example: addition of a training area of special emphasis (TASE) or prerequisite, expansion of a TASE.

(c) Cabin crew data (CCD)

(1) OSD change related to change to the type design

When classifying the OSD CCD change as minor or major, the method from CS-CCD, Subpart B should be used.

(i) An analysis should be performed to assess the change impact on the OSD CCD through the identification of the difference and its impact on operation in the aircraft difference table (ADT) as per CS CCD.200. In this case, the base aircraft is the aircraft without the type design change, whereas the candidate aircraft is the aircraft which includes the type design change.

(A) If the difference has no impact on the operation of an element of the ADT for the candidate aircraft, the related OSD CCD change should be classified as minor.

(B) If the difference has an impact on the operation of an element of the ADT for the candidate aircraft, the related OSD CCD change should be classified as major.

(ii) Notwithstanding the above, the change to OSD CCD should be classified as major when an ADT analysis is found necessary by the applicant to confirm that the aircraft with the type design change is not a new type for cabin crew.

(2) Stand-alone changes to OSD CCD are not related to any type design changes. They may be triggered for example by in-service experience or by the introduction of data at the request of the applicant after type certification.

(i) Stand-alone changes to cabin aspects of special emphasis (CASE) should be classified as major. Example: addition of further CASE, expansion of CASE.

(ii) When classifying stand-alone changes to type-specific data for cabin crew the method from CS-CCD, Subpart B should be used. An analysis should be performed to assess the change impact on the type-specific data through the identification of the difference and its impact on operation in the ADT as per CS CCD.200.

(A) If the change does not concern a determination element of CS CCD.205, the stand-alone change should be classified as minor.

(B) If the change has no impact on the operation of an element of the ADT, the stand-alone change should be classified as minor.

(C) If the change has an impact on the operation of an element of the ADT, the stand-alone change should be classified as major.

(d) Simulator data (SIMD)

The OSD constituent 'simulator data' does not include the data package that is necessary to build the simulator. It includes only the definition of the scope of validation source data to support the objective qualification of a simulator. So, when this guidance discusses changes to 'simulator data', this concerns only changes to the 'definition of scope of validation source data' and not changes to the data package.

(1) A change to the SIMD should be classified as major, in particular but not only when one or more of the following conditions are met:

(i) when a change to the SIMD introduces validation source data from an engineering platform where the process to derive such data has not been audited by the Authority in the initial SIMD approval; or

(ii) when the process to derive validation source data from an engineering platform is changed.

(2) A change to the SIMD could be classified as minor, in particular but not only when one or more of the following conditions are met:

(i) changes to engineering validation data independent of the aircraft due to improvements or corrections in simulation modelling (e.g. aerodynamics, propulsion);

(ii) configuration changes to the aircraft where the process to derive validation source data from an engineering platform is unchanged;

(iii) changes to validation source data by using better, more applicable flight test data; or

(iv) editorial changes to the validation data roadmap (VDR).

(e) Maintenance certifying staff data (MCSD)

[Reserved]

...

21.A.93 - Application

...

(b) An application shall include, or be supplemented after the initial application with, a certification programme for the demonstration of compliance in accordance with DASR 21.A.20, consisting of:

1. ~~A~~a description of the change identifying:
   i. the configuration(s) of the product in the type-certificate upon which the change is to be made;
   ii. all areas of the product in the type-certificate, including the approved manuals, that are changed or affected by the change; and
   iii. when the change affects the operational suitability data, any necessary changes to the operational suitability data;

2. ~~A~~an identification of any reinvestigations necessary to demonstrate compliance of the change and areas affected by the change with the type-certification basis, operational suitability data certification basis and environmental protection requirements;

3. ~~F~~for a major change to a type-certificate:

i. a proposal for the initial type-certification basis, operational suitability data certification basis and environmental protection requirements, prepared in accordance with the requirements and options specified in DASR 21.A.101;

ii. a proposal for a breakdown of the certification programme into meaningful groups of compliance demonstration activities and data, including a proposal for the means of compliance and related compliance documents;

iii. a proposal for the assessment of the meaningful groups of compliance demonstration activities and data, addressing the likelihood of an unidentified non-compliance with the type-certification basis, operational suitability data certification basis or environmental protection requirements and the potential impact of that non-compliance on product safety or environmental protection; and

iv. a project schedule including major milestones.

(c) An application for a change to a type-certificate shall be valid for five years unless the Authority agrees at the time of application on a longer time period. In the case where the change has not been approved, or it is evident that it will not be approved, within the time limit provided for in this point, the applicant shall apply for an extension of the validity of the application and comply with the type-certification basis, operational suitability data certification basis and environmental protection requirements, established in accordance with DASR 21.A.101.

GM1 21.A.93(b)(1)(iii) - Interaction of changes to the type design and changes to operational suitability data (OSD)

In general, it has to be assumed that changes to the type design can have an effect on the OSD. Due to the alleviating nature of the OSD constituent master minimum equipment list (MMEL), the impact of design changes on the MMEL can be treated differently from the impact on other OSD constituents. Therefore, a separate GM No 2 to 21.A.93(b)(1)(iii) is available to explain the interaction between design changes and the MMEL. The following guidance is, therefore, only applicable to the other OSD constituents.

In assessing the interactions between the changes to the type design and to the OSD, the following can be taken into consideration (see Figure 1):

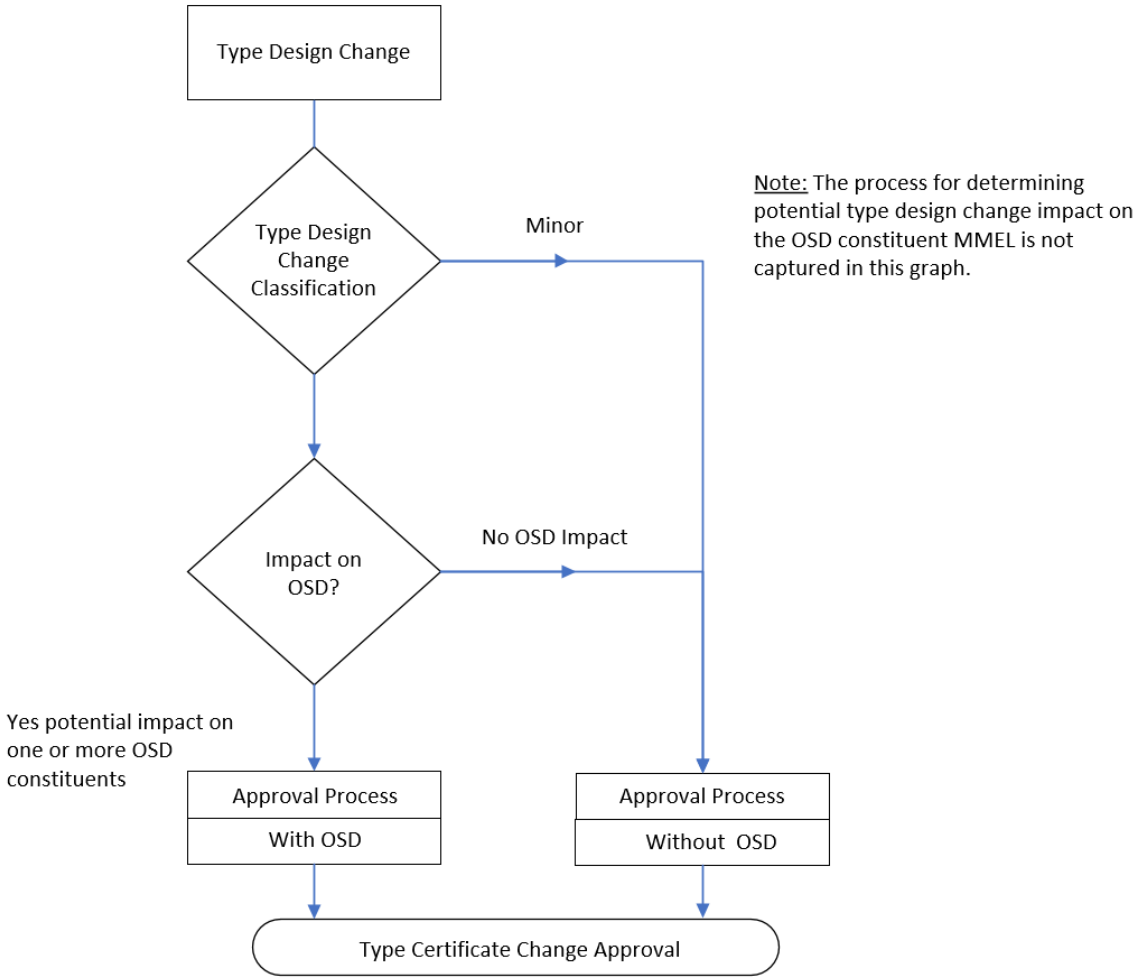


Figure 1

(a) Changes to the military type certificate (MTC) that only include a minor change to the type design ('stand-alone' type design changes) do not have an effect on the OSD. No dedicated assessment of the effects of the minor type design change on the OSD is needed in this case.

(b) MTC changes that only include a major type design change do not need to be assessed for their effect on the OSD in case the experience of the applicant has demonstrated that similar changes do not have an effect on the OSD.

(c) Design changes to aircraft for which OSD is not required cannot trigger the need to establish OSD.

(d) (removed).

(e) When the design change makes an OSD constituent applicable (see GM to DASR 21.A.15(d) – Clarification of the applicability of operational suitability data (OSD) constituents) where it was not applicable before, that OSD constituent should be added to the application for the approval of the change to the TC.

GM2 21.A.93(b)(1)(iii) - Interaction of changes to the type design and changes to the master minimum equipment list (MMEL)

In general, it has to be assumed that changes to the military type certificate (MTC) that affect the type design can have an effect on the MMEL.
Due to its alleviating nature, the MMEL is developed to improve aircraft use, thereby providing a higher availability of military aircraft for operations.
Therefore, not introducing MMEL relief for new equipment, system or function has no effect on the safety of the operation. The introduction of MMEL relief for new equipment can, therefore, be treated as a stand-alone MMEL change, separately from the design change, and can be processed at a later date than the date of entry into service of the aircraft including the design change.
Not modifying an MMEL item whose validity is altered by a type design modification may, however, have an effect on the safety of the operation. The applicant for a change to the TC that changes the type design should, therefore, identify whether this change needs to be supplemented by a change to the MMEL. However, the update of an MMEL relief for an already addressed equipment, system or function can be treated at a later date than the date of entry into service of the aircraft including the design change, provided that the change to the MMEL is of an alleviating nature. When the change to the MMEL is not of an alleviating nature, it has to be approved according to DASR 21.A.97(b)(2) and (c).
It may be assumed that a change to the type design requires a change to the MMEL if any of the following conditions are fulfilled:

(a) the change affects an existing MMEL item in a more restrictive manner: there is a change to equipment, system or function linked to an MMEL item, or a change to the operational limitations and procedures linked to an MMEL item;
(b) the change invalidates the assumptions used to justify an existing MMEL item, and requires a more restrictive MMEL item; and
(c) the change invalidates any dispatch conditions of the MMEL.

The following diagram summarises the interaction between type design changes and changes to MMEL (see Figure 1).

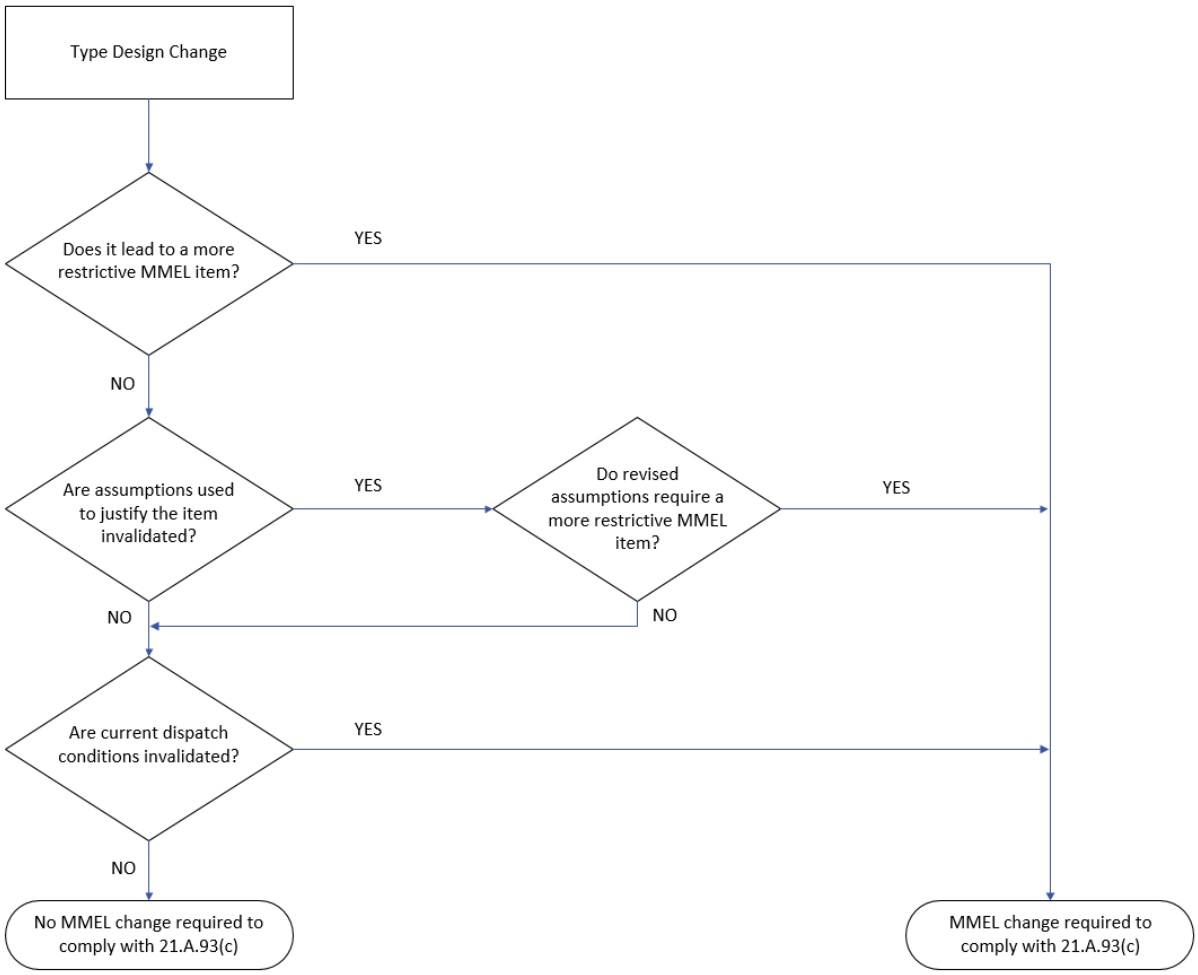


Figure 1

21.A.95 - Requirements for approval of a minor change

…

(b) A minor change to a type-certificate shall only be approved:

1. when it has been demonstrated that the change and areas affected by the change comply with the type-certification basis and the environmental protection requirements incorporated by reference in the type-certificate;
2. ~~(Reserved)~~in the case of a change affecting the operational suitability data, when it has been demonstrated that the necessary changes to the operational suitability data comply with the operational suitability data certification basis incorporated by reference in the type-certificate;
3. when compliance with the type-certification basis that applies in accordance with (1) has been declared and the justifications of compliance have been recorded in the compliance documents; and
4. when no feature or characteristic has been identified that may make the product unsafe for the uses for which certification is requested.

…

(d) ~~(Reserved)~~By way of exception from (a), at the applicant's request included in the declaration referred to in DASR 21.A.20(d), a minor change to an aircraft type-certificate may be approved

before compliance with the operational suitability data certification basis has been demonstrated, provided that the applicant demonstrates such compliance before the date at which those data are actually used.

…

AMC 21.A.95 - Requirements for the approval of a minor change

…

(c) Certification basis

…

The certification basis contains the applicable airworthiness, operational suitability data and environmental protection requirements specified by reference to their amendment level, as complemented by special conditions, equivalent safety findings, exceptions, and 'elect to comply', etc., as applicable. See also the additional guidance below on the meaning of 'Minor changes affecting OSD constituents'.

By way of exception from the above, airworthiness requirements that became applicable after those incorporated by reference in the MTC may be used for the approval of a minor change (see the guidance below on airworthiness requirements that became applicable after those 'incorporated by reference in the type certificate').

If other changes are required for the embodiment of the minor change, the certification basis corresponding to the product modified by these other changes should also be considered when determining the certification basis for the minor change.

…

(g) ~~(Reserved)~~Minor changes affecting OSD constituents (i.e. master minimum equipment list (MMEL))

Some minor changes to the type design may only have an effect on the MMEL (see GM No 1 to 21.A.93(b)(1)(iii)). In such cases, GM No 2 to 21.A.93(b)(1)(iii) is also applicable. This also means that a dedicated assessment of the effects of the minor type design change on the other OSD constituents is not needed.

21.A.97 - Requirements for approval of a major change

…

(b) A major change to a type-certificate shall only be approved:

1. ~~W~~when it has been demonstrated that the change and areas affected by the change comply with the type certification basis and environmental protection requirements, as established by the Authority in accordance with DASR 21.A.101;
2. ~~(Reserved)~~in the case of a change affecting the operational suitability data, when it has been demonstrated that the necessary changes to the operational suitability data meet the operational suitability data certification basis, as established by the Authority in accordance with DASR 21.A.101; and
3. ~~W~~when compliance with (1) has been demonstrated in accordance with DASR 21.A.20, as applicable to the change.

~~(c) (Reserved)~~

(c) By way of exception from (2) and (3) of (b), at the applicant's request included in the declaration referred to in DASR 21.A.20(d), a major change to an aircraft type-certificate may be approved before compliance with the operational suitability data certification basis has been demonstrated, provided that the applicant demonstrates such compliance before the date at which those data are actually used.

AMC 21.A.97 - Requirements for the approval of a major change

1. AMC/GM to DASR 21.A.20 should be used for a major change approved by the Authority.
2. ~~(Reserved)~~For the application of DASR 21.A.97(c), see GM to DASR 21.A.21(b), 21.A.95(c), 21.A.97(c) and 21.A.115(c).

...

21.A.101 - Type-certification basis, operational suitability data certification basis and environmental protection requirements for a major change to a type-certificate

...

(g) When the application for a change to a military type-certificate for an aircraft includes, or is supplemented after the initial application to include, changes to the operational suitability data, the operational suitability data certification basis shall be established in accordance with (a)-(f).

GM 21.A.101 - Establishing the certification basis of changed aeronautical products

...

1.2.6 This GM primarily provides guidance for the designation of applicable airworthiness requirements for the type-certification basis for the changed product. However, portions of this GM, as specified in GM1 21.A.101(g), can be applied by analogy to establish the operational suitability data (OSD) certification basis for the changed product. This GM is not intended to be used to determine the applicable environmental protection requirements (aircraft noise, fuel venting, and engine exhaust emissions and aeroplane CO2 emissions requirements) for changed products, as they are designated by the Authority through DASR 21.A.18.

...

2.2.7 DASR 21.A.101(g).
DASR 21.A.101(g) pertains to the designation of the applicable OSD certification basis when the application for a change to a type certificate for an aircraft includes, or is supplemented after the initial application to include, changes to the OSD. It implies that the same requirements of paragraphs (a) and (f) that are applicable to the establishment of the airworthiness type-certification basis also apply to the establishment of the OSD certification basis. For specific guidance, see DASR GM1 21.A.101(g).

Appendix H to GM 21.A.101 - Examples of documenting the proposed certification basis list

This appendix refers to Appendix H to EASA GM 21.A.101 as per ED Decision 2017/024/R, which provides examples for establishing the applicable airworthiness and OSD codes or standards that will become part of the type-certification basis for airworthiness or OSD certification basis as well as for documenting a proposed certification basis.

Appendix J to GM 21.A.101 - Definitions and terminology

…

J.4 Certification basis.

The combination of the:

- airworthiness requirements as provided for in DASR 21.A.17A,
- OSD requirements as provided in DASR 21.A.17B, and
- environmental protection requirements, as provided for in DASR 21.A.18,

and as established for the change according to DASR 21.A.101, as well as the:

- special conditions (SC);
- equivalent safety findings (ESF);
- elects to comply (ETC); and
- exceptions

applicable to the product to be certified.

…

GM 21.A.101(g) - Establishment of the operational suitability data (OSD) certification basis for changes to type certificates (TCs)

This GM provides guidance on the application of DASR 21.A.101(g) in order to determine the applicable OSD certification basis in accordance with DASR 21.A.101(a), (b), (d), (e) and (f) for major changes to the OSD of type-certified aircraft.

1. Minor changes

Minor changes to the OSD are automatically outside the scope of DASR 21.A.101. See GM 21.A.95 for their certification basis.

2. Major changes

a. If the design change that triggered the change to the OSD constituent is classified as non-significant, the change to the OSD constituent is also non-significant.
b. If the design change that triggered the change to the OSD constituent is classified as significant, the change to the OSD constituent should comply with the latest amendment of the applicable airworthiness requirements, unless the exceptions of DASR 21.A.101(b)(3) apply or unless the OSD change can be classified as minor as per DASR 21.A.91. The guidance of DASR GM 21.A.101 Section 3.10 regarding the exceptions ‘impractical’ and ‘not contributing materially to the level of safety’, can be applied by analogy and as far as it is applicable to OSD changes.
c. Stand-alone changes to an OSD constituent are considered to be non-significant.
d. When a new OSD constituent is added or required to be added, it should comply with the latest amendment of the applicable airworthiness codes or standards.
e. Reserved.
f. Reserved.
g. Reserved.

Note: Refer to GM No 1 to DASR 21.A.15(d) for the applicability of the OSD to other-than-complex motor-powered aircraft.

21.A.105 - Record keeping

(a) For each change, all relevant design information, drawings and test reports, including inspection records for the changed product tested, shall be held by the applicant at the disposal of the Authority and shall be retained in order to provide the information necessary to ensure the continued airworthiness, continued validity of the operational suitability data and compliance with applicable environmental protection requirements of the changed product.

(b) Unless otherwise laid down by the Authority, the records must be retained for at least two years after the removal of service of the last aircraft of the type certified.

21.A.108 - Availability of operational suitability data

In the case of a change affecting the operational suitability data, the holder of the minor change approval shall make available

(a) at least one set of changes to the operational suitability data prepared in accordance with the applicable operational suitability certification basis, to all known operators of the changed aircraft, before the operational suitability data must be used by a training organisation or operator; and

(b) any further change to the affected operational suitability data, to all known operators of the changed aircraft; and

(c) on request, the relevant parts of the changes in (a) and (b) above, to:

1. the competent authority responsible for verifying conformity with one or more elements of the affected operational suitability data; and
2. any person or organisation required to comply with one or more elements of this set of operational suitability data.

GM to 21.A.62, 21.A.108 and 21.A.120B - Availability of Operational Suitability Data

(a) When making data available, the holder of the design approval (MTC, change approval, MSTC) should take into account the applicable security laws.
(b) When making data available, the holder of the design approval can impose conditions addressing the intellectual property nature of the data.

DASR 21 SUBPART E

21.A.113 - Application for a Military Supplemental Type-certificate

(a) An application for a supplemental type-certificate shall be made in a form and manner established by the Authority.

(b) When applying for a supplemental type-certificate, the applicant shall:
   i. include in the application the information required by DASR 21.A.93(b);
   ii. specify whether the certification data has been or will be prepared completely by the applicant or on the basis of an arrangement with the owner of the type-certification data.

(c) DASR 21.A.93(c) applies to the requirements for the time limits of the application effectivity as well as the requirements related to the need to update the type-certification basis, operational suitability data certification basis and environmental protection requirements, when the change has not been approved or it is evident that it will not be approved within the time limit established.

21.A.115 - Requirements for approval of major changes in the form of a supplemental type-certificate

…

(b) A supplemental type-certificate shall only be issued when:
   1. ~~T~~the applicant has demonstrated its capability in accordance with DASR 21.A.112B;
   2. ~~I~~it has been demonstrated that the change to a type-certificate and areas affected by the change comply with the type-certification basis and the environmental protection requirements, as established in accordance with DASR 21.A.101;
   3. ~~(Reserved);~~in the case of a supplemental type-certificate affecting the operational suitability data, it has been demonstrated that the necessary changes to the operational suitability data meet the operational suitability data certification basis, as established ~~by the Authority~~ in accordance with DASR 21.A.101;
   4. ~~C~~compliance with (2) and (3) has been demonstrated in accordance with DASR 21.A.20, as applicable to the change; and
   5. ~~I~~in case the applicant has specified that it provided certification data on the basis of an arrangement with the owner of the type-certification data in accordance with DASR 21.A.113(b):
      i. The type-certificate holder has indicated that it has no technical objection to the information submitted under DASR 21.A.93; and
      ii. The type-certificate holder has agreed to collaborate with the supplemental type-certificate holder to ensure discharge of all obligations for continued airworthiness of the changed product through compliance with DASR 21.A.44 and DASR 21.A.118A.

~~(c) (Reserved)~~

(c) By way of exception from (3) and (4) of (b), at the applicant's request included in the declaration referred to in DASR 21.A.20(d), the applicant is entitled to have a supplemental type-certificate for an aircraft issued before the applicant has demonstrated compliance with the operational suitability data certification basis, provided that the applicant demonstrates such compliance before the date at which those data are to be actually used.

…

AMC 21.A.115 - Requirements for the approval of major changes in the form of a Military Supplemental Type Certificate (MSTC)

(a) For MSTCs approved by the Authority, the AMC and GM to DASR 21.A.20 should be followed by the applicant.
(b) ~~(Reserved)~~For an application under DASR 21.A.115(c), see GM 21.A.21(b), 21.A.95(c), 21.A.97(c) and 21.A.115(c).

...

21.A.118A – Obligations and Australian Military Parts Approval marking

Each holder of a supplemental type-certificate shall:

(a) Undertake the obligations:

1. Laid down in DASR 21.A.3A, DASR 21.A.3B, DASR 21.A.4, DASR 21.A.105, DASR 21.A.119, ~~and~~ DASR 21.A.120A and DASR 21.A.120B;

...

21.A.119 - Manuals

The holder of a supplemental type-certificate shall produce, maintain, and update master copies of variations in the manuals required by the applicable type-certification basis, the applicable operational suitability data certification basis and environmental protection requirements for the product, necessary to cover the changes introduced under the supplemental type-certificate, and furnish copies of these manuals to the Authority, on request.

21.A.120B ~~Reserved~~ - Availability of operational suitability data

In the case of a change affecting the operational suitability data, the holder of the military supplemental type-certificate shall make available:
(a) at least one set of changes to the operational suitability data prepared in accordance with the applicable operational suitability certification basis, to all known operators of the changed aircraft, before the operational suitability data must be used by a training organisation or an operator; and
(b) any further change to the affected operational suitability data, to all known operators of the changed aircraft; and
(c) on request, the relevant parts of the changes in (a) and (b) above, to:
1. the authority responsible for verifying conformity with one or more elements of the affected operational suitability data; and
2. any person or organisation required to comply with one or more elements of this set of operational suitability data.

GM to 21.A.62, 21.A.108 and 21.A.120B - Availability of Operational Suitability Data

(a) When making data available, the holder of the design approval (MTC, change approval, MSTC) should take into account the applicable security laws.

(b) When making data available, the holder of the design approval can impose conditions addressing the intellectual property nature of the data.

DASR 21 SUBPART J

21.A.239 - Design assurance system and Safety Management System

(a) The design organisation shall demonstrate that it has established and is able to maintain a design assurance system for the control and supervision of the design, and of design changes, of products, parts and appliances covered by the application. This design assurance system shall be such as to enable the organisation:

1. To ensure that the design of the products, parts and appliances or the design change or repair solution thereof, comply with the applicable type-certification basis, the applicable operational suitability data certification basis, and environmental protection requirements (where applicable); and
2. To ensure that its responsibilities are properly discharged in accordance with:
   i. The appropriate provisions of this DASR; and
   ii. The terms of approval issued under DASR 21.A.251.
3. To independently monitor the compliance with, and adequacy of, the documented procedures of the system. This monitoring shall include a feed-back system to a person or a group of persons having the responsibility to ensure corrective actions.

...

GM1 21.A.239(a) - Design assurance system

...

3.1.4 Office of Airworthiness

a) Liaison between the design organisation and the Authority with respect to all aspects of the certification programme.
b) Ensuring that a handbook is prepared and updated as required in DASR 21.A.243.
c) Co-operation with the Authority in developing procedures to be used for the type-certification process.
d) Issuing of guidelines for documenting compliance.
e) Co-operation in issuing guidelines to ensure compliance with the regulations for the preparation of the manuals, Service Bulletins, drawings, specifications, and standards.
f) Ensuring procurement and distribution of applicable airworthiness and environmental protection (where applicable) requirements and other specifications.
g) Co-operating with the Authority in proposing the type-certification basis.
h) Interpretation of applicable airworthiness and environmental protection (where applicable) requirements and requesting decisions of the Authority in case of doubt.
i) Advising of all departments of the design organisation in all questions regarding airworthiness, operational suitability, environmental protection (where applicable) approvals and certification.
j) Preparation of the certification programme and co-ordination of all tasks related to Type Investigation in concurrence with the Authority.
k) Regular reporting to the Authority about Type Investigation progress and announcement of scheduled tests in due time.

l) Ensuring co-operation in preparing inspection and test programmes needed for demonstration of compliance.
m) Establishing the compliance checklist and updating for changes.
n) Checking that all compliance documents are prepared as necessary to demonstrate compliance with all airworthiness and environmental protection (where applicable) requirements, as well as for completeness, and signing for release of the documents.
o) Checking the required type design definition documents described in DASR 21.A.31 and ensuring that they are provided to the Authority for approval when required.
p) Preparation, if necessary, of a draft for a type-certificate data sheet and/or type-certificate data sheet modification.
q) Providing verification to the head of the design organisation that all activities required for Type Investigation have been properly completed.
r) Approving the classification of changes in accordance with DASR 21.A.91 and granting the approval for minor changes in accordance with DASR 21.A.95(b).
s) Monitoring of significant events on other aeronautical products as far as relevant to determine their effect on airworthiness or operational suitability of products being designed by the design organisation.
t) Ensuring co-operation in preparing Service Bulletins and the Structural Repair Manual, and subsequent revisions, with special attention being given to the manner in which the contents affect airworthiness and environmental protection (where applicable) and granting the approval on behalf of the Authority.
u) Ensuring the initiation of activities as a response to a failure (accident/incident/in-service occurrence) evaluation and complaints from the operation and providing of information to the Authority in case of airworthiness or operational suitability impairment (continuing airworthiness and continued operational suitability).
v) Advising the Authority with regard to the issue of airworthiness directives in general based on Service Bulletins.
w) Ensuring that the manuals approved by the Authority, including any subsequent revisions (the Aircraft Flight Manual, MMEL, the Airworthiness Limitations section of the Instructions for Continuing Airworthiness and the Certification Maintenance Requirements (CMR) document, where applicable) are checked to determine that they meet the respective requirements, and that they are provided to the Authority for approval.

…

3.1.6 ~~(Reserved)~~ **Operational Suitability Data (OSD)**

a) Ensuring the preparation and updating of all OSD in accordance with relevant airworthiness codes and standards. For that purpose, the applicant should:
– establish the list of all the documents it is producing to comply with relevant requirements (e.g. EASA CS-MMEL or CS-GEN-MMEL, CS-FCD, CS-CCD, CS-SIMD and CS-MCSD), as applicable;
– define its procedures and the organisation to produce and issue these documents under the obligation of EMAR 21.A.265(h); these procedures should cover the aspects described in 3.1.5(a) above.
b) In accordance with DASR 21.A.57, DASR 21.A.62, DASR 21.A.108, DASR 21.A.119 and DASR 21.A.120B, ensuring that these documents are provided to all affected operators and training organisations and all involved authorities.

…

AMC1 21.A.243(a) - Handbook (Design Organisation Exposition) requirements

The handbook (design organisation exposition) should provide the following information for each product covered by the design organisation approval.

1. A description of the tasks which can be performed under the approval, according to the following classification:
   a. General areas, like turbojet and turbo-propeller aircraft, small aircraft, Uncrewed Aircraft~~Aerial Vehicles~~Systems (~~UAV~~UAS) and rotorcraft;
   b. Technologies handled by the organisation (composite, wood or metallic construction, electronic systems, etc.);
   c. A list of types and models for which the design approval has been granted and for which privileges may be exercised, supported by a brief description for each product;
   d. For repair design, classification and (if appropriate) approval activities it is necessary to specify the scope of activity in terms of structures, systems, engines, etc.
2. A general description of the organisation, its main departments, their functions and the names of those in charge; a description of the line management and of functional relationships between the various departments.
3. A description of assigned responsibilities and delegated authority of all parts of the organisation which, taken together, constitute the organisation's design assurance system together with a chart indicating the functional and hierarchical relationship of the design assurance system to Management and to other parts of the organisation; also the chains of responsibilities within the design assurance system, and the control of the work of all partners and sub-contractors.
4. A general description of the way in which the organisation performs all the design functions in relation to airworthiness, operational suitability and environmental protection (where applicable) approvals including:
   a. The procedures followed and forms used in the Type Investigation process to ensure that the design of, or the change to the design of, the product as applicable is identified and documented, and complies with the applicable airworthiness codes and standards and environmental protection (where applicable) requirements, including specific requirements for import by importing authorities;
   b. The procedures for classifying design changes as 'major' or 'minor' and for the approval of minor changes;
   c. The procedures for classifying and approving unintentional deviations from the approved design data occurring in production (concessions or non-conformances);
   d. The procedure for classifying and obtaining approval for repairs.
5. A general description of the way in which the organisation performs its functions in relation to the continued airworthiness and continued operational suitability of the product it designs, including co-operation with the production organisation when dealing with any continued airworthiness actions that are related to production of the product, part or appliance, as applicable.
6. A description of the human resources, facilities and equipment, which constitutes the means for design, and where appropriate, for ground and flight testing.
7. An outline of a system for controlling and informing the Staff of the organisation of current changes in engineering drawings, specifications and design assurance procedures.
8. A description of the recording system for:
   a. The type design, including relevant design information, drawings and test reports, including inspection records of test specimens;
   b. The means of compliance;
   c. The compliance documentation (compliance check list, reports...).

9. A description of the record keeping system to comply with DASR 21.A.55 and DASR 21.A.105.
10. A description of the means by which the organisation monitors and responds to problems affecting the airworthiness or operational suitability of its product during design, production and in service in particular to comply with DASR 21.A.3A (see also DASR GM1 to 21.A.239(a), paragraphs 3.1.4(s) and 3.1.4(u)).
11. The names of the design organisation authorised signatories. Nominated persons with specific responsibilities such as mentioned in DASR 21.A.33 and DASR 21.A.35 should be listed.
12. (Reserved).
13. A clear definition of the tasks, competence and areas of responsibility of the Office of Airworthiness.
14. A description of the procedures for the establishment and the control of the maintenance and operating instructions (see DASR 21.A.57, DASR 21.A.61, DASR 21.A.107, DASR 21.A.119, DASR 21.A.120A and DASR 21.A.449).
15. A description of the means by which the continuing evaluation (system monitoring) of the design assurance system will be performed in order to ensure that it remains effective.
16. ~~(Reserved)~~ A description of the procedures for the establishment and the control of the operational suitability data (see DASR 21.A.57, DASR 21.A.62, DASR 21.A.108, DASR 21.A.119 and DASR 21.A.120B).

GM1 21.A.243(d) - Statement of qualifications and experience

1. Purpose

This GM provides guidelines on the following points:

- Who are the persons covered by DASR 21.A.243(d)?
- What is requested from the applicant for these persons?

2. Who are the persons?

Three different types of functions are named or implicitly identified in the requirements of DASR 21 Section A Subpart J or in associated AMC and GM, using qualified and experienced personnel:

- the Chief Executive [see GM1 21A.239(a) paragraph 3.1.2, DASR GM 21.A.249 and DASR GM 21.A.265(b)].
- the other management staff:
  - the Head of the design organisation [see DASR GM1 to 21.A.239(a) paragraph 3.1.2, DASR GM1 to 21.A.245 paragraph 4.1, DASR GM 21.A.265(b)];
  - the Chief of the Office of Airworthiness, or [see DASR GM1 21.A.245 paragraph 4.2];
  - the Chief of the independent monitoring function of the design assurance system [see DASR AMC1 21.A.243(a)(3) and DASR AMC1 21.A.243(a) paragraph 2].
- the personnel making decisions affecting airworthiness, operational suitability and environmental protection (where applicable):
  - compliance verification engineers [see DASR GM1 21.A.239(a) paragraph 3.1.3; DASR AMC 21.A.239(b)];
  - personnel of the Office of Airworthiness making decisions affecting airworthiness, operational suitability and environmental protection (where applicable), especially those linked with the DASR 21.A.263 privileges (signing documents for release, approving classification of changes and repairs, and granting the approval of minor changes and minor repairs, granting the approval of Service Bulletins, and minor revisions to the aircraft flight manual) [see GM1 to 21.A.239(a) paragraph 3.1.4].

…

3.3 Personnel making decisions affecting airworthiness, operational suitability and environmental protection (where applicable)

…

21.A.245 - Approval requirements

The design organisation shall demonstrate, on the basis of the information submitted in accordance with DASR 21.A.243 that, in addition to complying with DASR 21.A.239:

(a) the staff in all technical departments are of sufficient numbers and experience and have been given appropriate authority to be able to discharge their allocated responsibilities and that these, together with the accommodation, facilities and equipment are adequate to enable the staff to achieve the airworthiness, operational suitability and environmental protection (where applicable) objectives for the product;

(b) there is full and efficient coordination between departments and within departments in respect of airworthiness, operational suitability and environmental protection (where applicable) matters.

GM1 to 21.A.245 - Requirements for approval

…

4.2 An Office of Airworthiness, or equivalent function, has been established and staffed on a permanent basis to act as the focal point for co-ordinating airworthiness, operational suitability and environmental protection matters (where applicable) (see DASR GM1 to 21.A.239(a) paragraph 3.1.4); it reports directly to the Head of the design organisation or is integrated into an independent quality assurance organisation reporting to the Head of the design organisation.

…

GM2 to 21.A.245 - Requirements for approval - Organisations designing minor changes to type design or minor repairs to products

The data submitted in accordance with DASR 21.A.243 should show that:

1. The manager responsible for design has the direct or functional responsibility for all departments of the organisation which are involved in the design of minor changes to type design or minor repairs to products.
2. Person(s) have been nominated to liaise with the Authority and to co-ordinate airworthiness, operational suitability and environmental protection (where applicable) matters. Their position in the organisation should allow direct report to the manager responsible for design.
3. Responsibilities for all tasks related to the design and approval of minor changes to type design or minor repairs to products are assigned to ensure that all areas are covered.
4. The responsibility for a number of tasks as in paragraph 3, may be assigned to one person especially in the case of simple projects.

21.A.247 - Changes in design assurance system

After the issue of a design organisation approval, each change to the design assurance system that is significant to the showing of compliance or to the airworthiness, operational suitability and environmental protection (where applicable) of the product, shall be approved by the Authority. An application for approval shall be submitted in writing to the Authority and the design organisation shall demonstrate to the Authority, on the basis of submission of proposed changes to the handbook, and before implementation of the change, that it will continue to comply with this Subpart after implementation.

GM 21.A.247 - Significant changes in the design assurance system

In addition to a change in ownership (see DASR 21.A.249), the following changes to the design assurance system should be considered as 'significant' to the demonstration of compliance or to the airworthiness, operational suitability or environmental protection (where applicable) of the products:

1. **Organisation**
   - Relocation to new premises (see also DASR GM 21.A.249).
   - Change in the industrial organisation (partnership, suppliers, design worksharing) unless it can be shown that the independent checking function of the demonstration of compliance is not affected.
   - Change in the parts of the organisation that contribute directly to the airworthiness, operational suitability or environmental protection (where applicable) (independent checking function, office of airworthiness [or equivalent]).
   - Change to the independent monitoring principles [see DASR 21.A.239(a)(3)].
2. **Responsibilities**
   - Change of the management staff
     - the Head of the design organisation [DASR GM1 to 21.A.239(a), paragraph 3.1.2, DASR GM1 to 21.A.245, paragraph 4.1, DASR GM 21.A.265(b)];
     - the Chief of the Office of Airworthiness [DASR GM1 to 21.A.245, paragraph 4.2];
     - the Chief of the independent monitoring function of the design assurance system [DASR 21.A.239(a)(3) and DASR AMC1 to 21.A.243(a), paragraph 2].
   - New distribution of responsibilities affecting airworthiness, operational suitability or environmental protection (where applicable).
   - For organisations designing minor changes to type design or minor repairs to products, change of the persons identified in DASR GM2 to 21.A.243(d).
3. **Procedures**

Change to the principles of procedures related to:

- the type-certification;
- the classification of changes and repairs as 'major' or 'minor' ~~[~~(DASR 21.A.263(c)(1)~~]~~);
- the treatment of major changes and major repairs;
- the approval of the design of minor changes and minor repairs ~~[~~(DASR 21.A.263(c)(2)~~]~~);
- the approval of the design of certain major repairs ~~[~~(DASR 21.A.435(b) or DASR 21.A.263(c)(5)~~]~~);
- the approval of the conditions under which a permit to fly can be issued (DASR 21.A.263(c)(6));
- the issue of a permit to fly (DASR 21.A.263(c)(7));
- the approval of certain major changes to a type certificate (DASR 21.A.263(c)(8));
- the approval of certain supplemental type certificates (DASR 21.A.263(c)(9));

- the approval of certain major changes to certain supplemental type certificates; (DASR 21.A.263(c)(9));
- continued airworthiness or continued operational suitability (see DASR 21.A.3A);
- the configuration control, when airworthiness, operational suitability and environmental protection (where applicable) is affected;
- ~~continued airworthiness (see DASR 21.A.3A);~~
- the acceptability of design tasks undertaken by partners or subcontractors DASR 21.A.239(c);
- the issue of information and instructions under the obligation of DASR 21.A.265(h~~);~~).

4. Resources

- Substantial reduction in number and/or experience of staff (see DASR 21.A.245(a)).

21.A.251 - Terms of approval

The terms of approval shall identify the types of design work, categories of products, parts and appliances for which the design organisation holds a design organisation approval, and the functions and duties that the organisation is approved to perform in regard to the airworthiness, operational suitability and environmental characteristics of products. For design organisation approval covering type-certification or AUSMTSO authorisation for Auxiliary Power Units (APUs), the terms of approval shall contain in addition the list of products or APUs. Those terms shall be issued as part of a design organisation approval.

21.A.263 - Privileges

…

(d) For a military product derived from a civil type certified product, the holder of a MDOA or holder of a MTC approved organisation shall be entitled, within its terms of approval and under the relevant procedures of the design assurance system:

1. To declare the applicability, through validation of no impact to the military certification basis and the intended use, of the following when it is has already been approved by a recognised civil aviation authority
   - (i) a modification; or
   - (ii) an instruction for continuing airworthiness; or
   - (iii) revisions to the flight manual; or
   - (iv) revisions to the maintenance manual or
   - (v) changes to the approved operational suitability data.
2. To approve the following, when it is has already been approved by a recognised civil aviation authority and when it has been declared to be applicable to the military product:
   - (i) a major modification; or
   - (ii) revisions to the flight manual; or
   - (iii) revisions to the approved sections of the maintenance manual or
   - (iv) changes to the approved operational suitability data.

AMC1 21.A.263(c)(1) - Procedure for the classification of changes to a type certificate (TC) or a supplemental type certificate (STC) and of repair designs as minor and major

…

2.3 Classification

The procedure should show how the effects on airworthiness, operational suitability and environmental protection are analysed, from the very beginning, by reference to the applicable requirements.

If no specific airworthiness or environmental protection requirements are applicable to the change or repairs, the above review should be carried out at the level of the part or system where the change or repair is integrated and where specific airworthiness or environmental protection requirements are applicable.

~~2.3.1 Consultation with operational authorities (AUS)~~

~~For designs that require demonstration of compliance with certification basis elements that can only be conducted by aircrew, e.g. flight characteristics, human machine interface, the procedure should state requirements for consultation with an appropriate operational authority, e.g. Force Element Group/Wing representatives, Air Warfare Centre, prior to classifying the change.~~

2.4 Justification of the classification

All decisions of classification of changes to a TC, APU AUSMTSO or to that part of the product covered by an STC, and repair designs as 'major' or 'minor' should be recorded and, for those which are not straightforward, also documented. These records should be easily accessible to the Authority for sample check.

2.5 Authorised signatories

All classifications of changes to a TC, APU AUSMTSO or to that part of the product covered by an STC, and repair designs should be accepted by an appropriate authorised signatory, belonging to or tasked by the Office of Airworthiness, as explained in GM1 DASR 21.A.239(a)(3.1.4)(r).

The procedure should indicate the authorised signatories for the various products listed in the terms of approval.

For those changes or repairs that are handled by subcontractors, as described under paragraph 2.6, it should be described how the MDOA holder manages its classification responsibility.

2.6 Supervision of changes to a TC, APU AUSMTSO or to that part of the product covered by an STC, and repair~~s~~ designs initiated by subcontractors

The procedure should indicate, directly or by cross-reference to written procedures, how changes to that part of the product covered by an STC, and repair designs may be initiated and classified by subcontractors and are controlled and supervised by the MDOA holder.

AMC2 21.A.263(c)(1) - Privileges - Organisations that design minor changes to a type certificate (TC) or a supplemental type certificate (STC) and minor repairs to products: Classification procedure

1. Content

The procedure should address the following points:

- configuration control rules, especially the identification of changes to a TC, APU AUSMTSO or to that part of the product covered by an STC, and repair designs;
- classification, in compliance with DASR 21.A.91 and DASR GM 21.A.91 for changes and DASR GM 21.A.435 for repairs;

- justification of the classification;
- authorised signatories.

2. Identification of changes to a TC, APU AUSMTSO or to that part of the product covered by an STC, and repair designs

The procedure should indicate how the following minor changes to a TC or minor repairs are identified:

- those minor design changes to type design or minor repairs where additional substantiation data is necessary to demonstrate compliance with the airworthiness or environmental protection requirements (where applicable);
- other minor design changes to a TC or minor repairs requiring no further demonstration of compliance.

3. Classification

The procedure should show how the effects on airworthiness as well as operational suitability and environmental protection are analysed, from the very beginning, by reference to the applicable requirements.

If no specific requirements are applicable to the change or the repair, the above review should be done at the level of the part or system where the change or repair is integrated and where specific airworthiness or environmental protection requirements are applicable.

For repair, see also DASR GM 21.A.435.

…

AMC1 to 21.A.263(c)(5), (8) and (9) - Scope and criteria

1. Definition of 'certain major repairs'

'Certain major repairs' for which privileges may be granted as per DASR 21.A.263(c)(5) are:

(a) major repairs to products or auxiliary power units (APUs) for which the military design organisation approval (MDOA) holder holds the military type certificate (MTC) or the military supplemental type certificate (MSTC) or the Australian Military technical standard order authorisation (AUSMTSOA); or

(b) major repairs to products or APUs for which the MDOA holder does not hold the TC or the STC or AUSMTSOA and that meet the criteria of 3(a), (b) and (c) below.

1.1 Criteria for limitations on eligibility

An Authority approval may be required in cases of major repairs proposed by MDOA holders who are the MTC, MSTC or APU AUSMTSOA holders if the major repair is:

(a) related to a new interpretation of any item of the certification basis as used for the type certification (such as the airworthiness requirements, certification review items for special conditions, equivalent safety findings, deviations or 'elect to comply'); and

(b) related to the application of an airworthiness code or standard that is different from the one used for type certification.

Note: This should be established at the time of granting the privilege to the MDOA holder, or later through an Authority-agreed procedure.

2. Definition of 'certain major changes' and 'certain supplemental type certificates'

'Certain major changes' and 'certain supplemental type certificates' for which privileges may be granted as per DASR 21.A.263(c)(8) and (9) are changes similar to those that have been previously approved by the Authority for the same MDOA holder.

The similarity of the changes is to be seen in terms of the design, the installation, and the operational characteristics, whereas their repetitiveness is seen in terms of the applicable requirements and the compliance demonstration.

In this context, a 'requirement' means any element of the type-certification basis as specified in DASR 21.A.17A, or the operational suitability data (OSD) certification basis as specified in DASR 21.A.17B, or the environmental protection requirements (where applicable) as specified in DASR 21.A.18A.

…

3. Criteria for major repairs, major changes and STCs for which the privileges of DASR 21.A.263(c)(5), (8) and (9) may be granted

The following criteria need to be met:

(a) Similarity

The installation on the product, the design, the operation, and the equipment qualification are basically the same as in projects for which the Authority has already been involved and issued an approval for the same MDOA holder.

(b) Repetitiveness of the certification process

The whole certification process is repetitive, i.e. identical to, or part of, an already approved referenced process. For a change or repair that is a part of the referenced 'certain major repairs', 'certain major changes' or 'certain supplemental type certificates', the certification process is still identical to the one for the affected change. This is the case when each compliance demonstration is performed to the same extent in accordance with the same requirements, GM, and content of the interpretative material, as well as with the same means and method of compliance (not only the same means-of-compliance (MoC) code).

Note: In this AMC, a 'requirement' means any element of the type-certification basis as specified in DASR 21.A.17A, or ~~the~~OSD certification basis as specified in DASR 21.A.17B, or an environmental protection requirement~~s~~ (where applicable) as specified in DASR 21.A.18.

…

AMC 21.A.263(d)(1) - Declaration of applicability

1. **Intent**

This acceptable means of compliance provides means for an MDOA applicant to obtain the associated privileges under DASR 21.A.263(d)(1) to declare the applicability of a modification, or of an instruction for continuing airworthiness, or of a modification to the flight manual, or of a modification to the maintenance manual or of a change to the operational suitability data, as relevant, when it is already approved by a recognised civil aviation authority, to a product derivate from a civil type certified product.

2. **Procedure for declaring the applicability**

In order to obtain the associated DASR 21A.263(d)(1) privilege for a scope of derivative product, an MDOA applicant should respect the following conditions:

a) Agree with the authority the procedures to evaluate within the scope of its DASR 21 MDOA a modification, or an instruction for continuing airworthiness, or a modification to the flight manual, or of a modification to the maintenance manual or of a change to the operational suitability data being already approved by a recognised civil aviation authority. Such procedures shall include necessary arrangements with the civil DOA to ensure access to the data related to the type design.

…

AMC1 21.A.263(d)(1) - Declaration of applicability for a holder of a type certificate (AUS)

1. Intent

This acceptable means of compliance provides means for military type certificate holder to obtain the associated privileges under DASR 21.A.263(d)(1) to declare the applicability of a modification, or of an instruction for continuing airworthiness, or of a modification to the flight manual, or of a modification to the maintenance manual or of a change to the operational suitability data, as relevant, when it is already approved by a recognised Civil Aviation Authority (CAA), to a product derivate that is ostensibly equivalent to the civil type certified product.

…

2. Procedure for declaring the applicability

In order to obtain the associated DASR 21.A.263(d)(1) privilege for a scope of derivative product, an MDOA applicant should respect the following conditions:

a. Agree with the authority the procedures to evaluate within the scope of its DASR 21 MDOA a modification, or an instruction for continuing airworthiness, or a modification to the flight manual, or of a modification to the maintenance manual or of a change to the operational suitability data being already approved by a recognised CAA. Such procedures shall include obtaining the ICA and manuals related to the change and addressing any caveats or conditions of the CAA recognition.

…

AMC 21.A.263(d)(2) - Approval

1. **Intent**

This acceptable means of compliance provides means for an MDOA applicant to obtain the associated privileges under DASR 21.A.263(d)(2) to approve a major modification, or the approved parts of the maintenance manual, or of the flight manual, or of a change to the operational suitability data, and their evolutions, when it is already approved by a recognised civil aviation authority and when it has been declared applicable to the product derivate from the civil type certified product.

…

AMC1 21.A.263(d)(2) - Approval for a holder of a type certificate (AUS)

1. Intent

This acceptable means of compliance provides means for a military type certificate holder to obtain the associated privileges under DASR 21.A.263(d)(2) to approve a major modification, or the approved parts of the maintenance manual, or of the flight manual, or of a change to the operational suitability data, and their evolutions, when it is already approved by a recognised Civil Aviation Authority (CAA) and when it has been declared applicable to the product derivate that is ostensibly equivalent to the civil type certified product.

…

GM 21.A.265(h) - Designation of data and information issued under the authority of a military design organisation approval (MDOA) holder

1. INTENT

This GM provides guidance for complying with the obligation of DASR 21.A.265(h), and addresses the various aspects that the MDOA holder should cover in order to have a comprehensive procedure for the designation of data and information.

2. SCOPE

The term 'data and information' as used in DASR 21.A.265(h) also includes instructions.

Data and information referred to in DASR 21.A.265(h) are issued by a MDOA holder and cover the following:

- embodiment instructions for design changes or repairs (usually in the form of a service bulletin, a modification bulletin, repair instructions or engineering order, etc.);
- manuals required by DASR 21 or the applicable airworthiness codes and standards (such as the aircraft flight manual (AFM), instructions for ~~continued~~ continuing airworthiness (ICA~~s~~), etc.);
- ~~(reserved)~~operational suitability data (OSD);
- continued-airworthiness instructions (usually in the form of service bulletins) which may be covered by airworthiness directives (ADs);
- additional data to be defined by the MDOA holder (~~e~~g.g. alternative maintenance instructions that are not, per se, ICA~~s~~).

Note: This data and information may be issued in a digital or paper format.

The obligation does not apply to, and the statement provided with the data and information should not be used on, the following documents:

- certification documents (~~e~~g.g. the certification programme, compliance checklist, etc.);
- compliance documents;
- design data transferred to production organisations; and
- production deviations (also referred to as 'unintended deviations' or 'concessions').

3. RATIONALE

The purpose of this obligation is to give certainty to the end users about the approval status of the data and information issued by the MDOA holder.

4. STATEMENT

The statement provided with the data and information should also cover those items prepared by subcontractors or vendors that the MDOA holder has declared as applicable to their products. The technical content of the statement is related to the type certificate data and information.

The approval included in the statement means that:

- the type certificate data has been appropriately approved; and
- the information contains practical and well-defined installation or inspection methods, and, when those methods are implemented, the product is in conformity with the approved type certificate data.

Note: Data and information related to the measures required by DASR 21.A.3B(b) (airworthiness directives (ADs)) are submitted to the Authority to ensure their compatibility with the content of an AD (see DASR 21.A.265(e)), and contain a statement that they are, or will be, subject to an AD issued by the Authority.

DCP 2024-024: DASR 21 Subpart C MTCHO Approval Framework

Notes to readers:

This document shows the proposed changes to the AMC and GM wording as follows:

a. Highlighted text marks an addition.
b. ~~Strikethrough~~ formatting marks removal.
c. Green text marks Australian-specific text.
d. new EMAR Ed 2.0 (AMC/GM Ed 2.1) based text that will NOT be incorporated is ~~highlighted grey with strikethrough~~.

This document does not contain the affected subparts in their entirety and only contains the sections that contain proposed changes. The changed sections have been marked by their header AMC/GM number and split using "…" to represent unchanged text.

Where unchanged text spans across AMC/GMs, the delineation is further marked by a solid black line to denote a more significant gap between the changed sections.

SUBPART B – MILITARY TYPE-CERTIFICATES AND MILITARY RESTRICTED TYPE-CERTIFICATES

21.A.14 – Demonstration of Capability

(a) Any organisation applying for a type-certificate or restricted type-certificate shall demonstrate its capability by holding a military design organisation approval (MDOA), issued by the Authority in accordance with DASR 21 Subpart J.

(b) By way of exception from paragraph (a), as an alternative procedure to demonstrate its capability, an applicant may seek Authority agreement for the use of procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this DASR, under the following:

1. Products with simple or limited scope of design.

2. Starting phase toward a military design organisation approval or limited duration of design activities.

3. Products for which the major part of the Type Design certification activities have already been accepted by the Authority concerned.

4. Reserved.

(c) By way of exception from paragraph (a) and (b), any government organisation applying for a type-certificate or restricted type-certificate may demonstrate its capability by having an agreement in place, accepted by the Authority, in accordance with DASR 21.A.2 with a design organisation which has access to the type design data. The agreement shall include detailed statements how the actions and obligations are delegated to enable the government organisation, in cooperation with the contracted organisation, to comply with the requirements of DASR 21 Subpart J, including demonstration of compliance with DASR 21.A.44.

(d) By way of exception from paragraphs (a), (b) and (c), any organisation applying for a type-certificate or restricted type-certificate may demonstrate its capability by holding a military type-certificate holder organisation (MTCHO) approval, issued by the Authority in accordance with DASR 21 Subpart C.

SUBPART E – MILITARY SUPPLEMENTAL TYPE-CERTIFICATES

DASR 21.A.112B – Demonstration of Capability

(a) Any organisation applying for a supplemental type-certificate shall demonstrate its capability by holding a military design organisation approval (MDOA), issued by the Authority in accordance with DASR 21 Subpart J.

(b) By way of exception from paragraph a, as an alternative procedure to demonstrate its capability, an applicant may seek Authority agreement for the use of procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this Subpart.

(c) By way of exception from paragraph (a) and (b), any government organisation applying for a supplemental type-certificate may demonstrate its capability by having an agreement in place, accepted by the Authority, in accordance with DASR 21.A.2 with a design organisation which has access to the type design data. The agreement shall include detailed statements how the actions and obligations are delegated to enable the government organisation, in cooperation with the contracted organisation, to comply with the requirements of DASR 21 Subpart J, including demonstration of compliance with DASR 21.A.118A must be acceptable to the Authority.

(d) By way of exception from paragraphs (a), (b) and (c), any organisation applying for a supplemental type-certificate may demonstrate its capability by holding a military type-certificate holder organisation (MTCHO) approval, issued by the Authority in accordance with DASR 21 Subpart C.

SUBPART M – REPAIRS

DASR 21.A.432B – Demonstration of Capability

(a) An applicant for a major repair design approval shall demonstrate its capability by holding a military design organisation approval (MDOA), issued by the Authority in accordance with DASR 21 Subpart J.

(b) By way of exception from paragraph (a), as an alternative procedure to demonstrate its capability, an applicant may seek Authority agreement for the use of procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this Subpart.

(c) By way of exception from paragraph (a) any government organisation applying for a major repair design approval may demonstrate its capability in accordance with DASR 21.A.2 and DASR 21.A.14(c), including demonstration of compliance with DASR 21.A.451.

(d) By way of exception from paragraphs (a), (b) and (c), any applicant for a major repair design approval may demonstrate its capability by holding military type-certificate holder organisation (MTCHO) approval, issued by the Authority in accordance with DASR 21 Subpart C.

SUBPART C – ~~(NOT APPLICABLE)~~ MILITARY TYPE-CERTIFICATE HOLDER ORGANISATION APPROVAL

21.A.71 - Scope

This Subpart establishes the procedure for the approval of military type-certificate holder organisations (MTCHO) and rules governing the rights and obligations of applicants for, and holders of such approvals.

21.A.73 - Eligibility

At the discretion of the Authority, any Australian government organisation shall be eligible as an applicant for a military type-certificate holder organisation approval under this Subpart:

(a) when intending to hold a military type-certificate in accordance with DASR 21.A.14; and

(b) by having an agreement in place, accepted by the Authority, in accordance with DASR 21.A.2 with a design organisation which has access to the type design data of the applicable product. The agreement shall include detailed statements on how the actions and obligations are delegated to enable the applicant, in cooperation with the contracted organisation, to comply with the requirements of this Subpart. **AMC**, **AMC1**, **GM**

AMC 21.A.73(b) – Agreement with a design organisation

The agreement entered into with the supporting design organisation(s) as enabled by DASR 21.A.2 should be suitable to support the military type-certificate holder undertaking or executing the holder obligations, and the Authority needs to be assured that the support design organisation(s) are competent in the functions they are contracted to perform.

The design organisation framework provided by DASR 21 Subpart J (Military Design Organisation Approval) provides an acceptable means of compliance to achieve this, provided the MDOA holder has appropriate expertise for the ADF design.

If the Government organisation engages an external (to the DASR) design organisation, the DASA recognition framework should be used to support the eligibility assessment. The external design organisation supporting the military type-certificate holder organisation is expected to have all the requirements in place to support initial and continued airworthiness such that it meets the intent of an organisation approved under DASR 21 Subpart J. Certificates for each recognised authority are available through the DASA website.

Requirements applicable to applicants are:

a) the external design organisation (DO) is an approved design organisation within a recognised CAA / MAA framework or develops designs for certification by a recognised CAA / MAA,

b) the DO has appropriate technical scope and expertise for the ADF design,

c) the DO's systems, processes and personnel used in developing other designs for certification by the parent CAA / MAA will be used in the design development or holder activities associated with the ADF design,

d) the DO will provide an attestation of compliance against the Type Certification Basis for any provided design product,

e) any oversight by the DO's parent CAA / MAA is appropriate, and

f) where applicable, arrangements for DASA oversight are in place.

The government organisation should monitor the external DO to ensure continued adherence to requirements during the design development activities or execution of holder duties.

AMC1 21.A.73(b) - Alternative Demonstration

In specific cases, governmental organisations might be required to act as the holder of military type-certificates or restricted type-certificates. Often, these entities do not meet the qualification requirement of DASR 21.A.14(a) by own means. In such cases, DASR 21.A.2 is usually considered being sufficient to discharge actions and obligations to another person or organisation. However, some legal arrangements still require the accountability to remain with the government owned entity, in which case the qualification requirement of DASR 21.A.73 can only be met jointly. In such cases, the agreement required by DASR 21.A.2 should also provide sufficient detail on the processes and procedures governing the cooperation, including allocation of tasks, rights, obligations, and privileges among the entities involved.
To undertake actions and obligations on behalf of the holder of a military certificate, the contracted organisation shall ensure the necessary access to the data related to the type design establish sufficient cooperation with the Authority to ensure oversight.

GM 21.A.73(b) – Australian Defence Context

Unlike civil TC obligations, Defence MTC and MRTC obligations are not enforceable via national legislation; DASR (in general) are enforceable for commercial organisations only via contract law. As a result, during the certification or approval process, the Authority will assess a nominated Australian government organisation under DASR 21 Subpart C, and when satisfied issue the military type-certificate holder organisation approval (MTCHO approval) to that organisation. Upon issue of the relevant MTC under DASR 21 Subpart B, that organisation becomes responsible for conduct of the holder obligations as detailed in DASR 21.A.44.

Contracting of holder responsibilities. Where the government organisation does not meet DASR 21.A.14(a) or (b) provisions, or is unable to meet all obligations internally, it may demonstrate its capability by holding an approval issued under DASR 21 Subpart C, which allows for the government organisation to contract the provision of the DASR 21.A.44, DASR 21.A.118A and DASR 21.A.451(a) aligned holder obligations to commercial or foreign design organisations under DASR 21.A.2.

Where procurement/support arrangements preclude an external organisation holding a DASR MDOA from being contracted under these provisions, the holder organisation will need to use the DASA recognition framework to assist demonstration of the external design organisation as suitable to meet the requirements. Particular attention shall be paid to how failures, malfunctions and defects are reported into the DASR framework (DASR 21.A.3A) and investigated for impact to the type design.

21.A.74 - Application

Each application for a military type-certificate holder organisation approval shall be made in a form and manner established by the Authority, and shall include an outline of the information required by DASR 21.A.77, and the terms of approval requested to be issued under DASR 21.A.80. **AMC**

AMC 21.A.74 – Application – Form and manner

DASR Form 80C—Application for Military Type-Certificate Holder Organisation (MTCHO) approval and significant changes, is to be obtained from the Authority, and completed by the Accountable Manager of the organisation. The completed form, an outline of the Type Continued Airworthiness Exposition, and details of the proposed terms of approval are to be forwarded to the Authority.

21.A.75 - Issue of Military Type-Certificate Holder Organisation approval

An organisation shall be entitled to have a military type-certificate holder organisation approval issued by the Authority when it has demonstrated compliance with the applicable requirements under this Subpart.

21.A.76 – (Type) Continued Airworthiness System

(a) The military type-certificate holder organisation shall demonstrate that it has established and is able to maintain a system for the management of the continued airworthiness of the products covered by the application. This continued airworthiness system shall be such as to enable the organisation: **GM**

1. To ensure that the continued airworthiness of the product is carried out in accordance with DASR 21.A.44, DASR 21.A.118A (where applicable) and DASR 21.A.451 (where applicable); and

2. To ensure that its responsibilities are properly discharged in accordance with:

   i. The appropriate provisions of this DASR; and

   ii. The terms of approval issued under DASR 21.A.80.

3. To independently monitor the compliance with, and adequacy of, the documented procedures of the system. This monitoring shall include a feed-back system to a person or a group of persons having the responsibility to ensure corrective actions. **AMC**

(b) (Reserved)

(c) The military type-certificate holder organisation shall specify the manner in which the continued airworthiness system accounts for the acceptability of tasks performed by supporting organisations according to methods which are the subject of written procedures. **AMC, GM**

(d) The organisation shall integrate into a Safety Management System (SMS), in accordance with DASR.SMS. **AMC**

GM 21.A.76(a) – (Type) Continued Airworthiness System

1. Purpose - This GM outlines some basic principles and objectives of DASR 21.A.76(a)

2. Definitions

2.1 The continued airworthiness system is the organisational structure, responsibilities, procedures and resources to ensure the proper functioning of the military type-certificate holder organisation.

2.2 The continued airworthiness system means all those planned and systematic actions necessary to provide adequate confidence that the organisation has the capability:

- to ensure the continued airworthiness of products, in accordance with the applicable airworthiness requirements
- to demonstrate this to the Authority.

3. Continued Airworthiness -

Effective management of Continued Airworthiness requires the execution of holder obligations that ensure the continued integrity of the type design. The following aspects are critical to effective management:

- An understanding of the platform design and the Australian type certification basis underpinning the safety standards
- Providing a focal for the platform for the all technical elements of the type design and an interface to the OEM (based on effective arrangements in place)
- Convening safety forums within the platform enterprise to enable technical hazards and associated risks to be effectively managed during sustainment.
- Continually driving down known technical hazards through certification to agreed safety standards.

3.1 Planned and Systematic Actions

For military type-certificate holder organisations, the planned and systematic actions should cover the following tasks and procedures should be defined accordingly:

3.1.1 General

a) To issue or, where applicable, supplement or amend the Type Continued Airworthiness Exposition (TCAE) in accordance with DASR 21.A.77, in particular to indicate new/changes to continued airworthiness management arrangements for a product.

b) To assure that all instructions of the exposition are adhered to.

c) To undertake continued airworthiness obligations in accordance with DASR 21.A.44, DASR 21.A.118A (where applicable) and DASR 21.A.451 (where applicable), including:

i) How failures, malfunctions and defects are managed, assessed and reported under DASR 21.A.3A. The considerations shall include the process where through investigation, real or perceived unsafe conditions to the type design can be identified and rectified.

ii) How the integration of weapons, systems and changes proposed to the type design are planned and implemented, from the beginning of design activities up to and including the continued airworthiness activities (see DASR 21.A.M42). The military type-certificate holder organisation is responsible for ensuring that changes integrated into the type design do not compromise the inherent safety basis of the certified type design. The continued airworthiness system in place, the arrangements with supporting organisations and the broader sustainment enterprise should be such that changes are introduced by maintaining the inherent safety level of the certification basis.

iii) How the military type-certificate holder organisation undertakes the management of ASI and PSI requirements to evaluate ADF usage against the OEM design parameters.

iv) How the military type-certificate holder organisation provisions manuals including the approved areas of the AFM and ICA critical to maintaining integrity of the type design through operations and maintenance.

d) To nominate a Senior Defence Engineer (SDE) as a Form 4 holder as defined in 3.1.4

e) To ensure full and complete liaison between the military type-certificate holder organisation and supporting organisations having responsibility for the continued airworthiness of products.
f) To undertake Configuration, Role & Environment (CRE) delta assessments to evaluate the appropriateness of utilising recognised foreign Authority (CAA/MAA) approved products.
g) How the military type-certificate holder organisation undertakes technical hazard log management for their products in collaboration with their operators to ensure hazards are managed SFARP.
h) How the military type-certificate holder organisation provisions technical risk advice to their operator to support capability, while ensuring continued airworthiness is not compromised.
i) How safety notifications originating from foreign Authorities (CAA/MAA) are considered, managed and actioned in the context of the product under the terms of approval of the military type-certificate holder organisation.

3.1.2 Accountable Manager of the Military Type-Certificate Holder Organisation

a) The Accountable Manager should provide the necessary resources for the proper functioning of the military type-certificate holder organisation.

3.1.3 Reserved

3.1.4 Senior Defence Engineer (SDE)

a) Liaison between the military type-certificate holder organisation and the Authority with respect to all aspects of continued airworthiness.
b) Ensuring that the Type Continued Airworthiness Exposition (TCAE) is prepared and updated as required in DASR 21.A.77.
c) Co-operation with the Authority in developing procedures to be used for Continued Airworthiness.
d) Regular reporting to the Authority about investigations of occurrences where an unsafe condition may exist or has been identified to exist.
e) Determining that the design of products, or changes or repairs thereof that leverage prior certification, comply with applicable specifications and requirements and have no unsafe feature.
f) Providing to the Authority statements and associated documentation confirming suitability of prior certification including drafting amendments to the type certificate data sheet.
g) Monitoring of significant events on other aeronautical products as far as relevant to determine their effect on airworthiness of products within the terms of approval of the military type-certificate holder organisation.
h) Ensuring the initiation of activities as a response to a failure (accident/incident/in-service occurrence) evaluation and complaints from the operation and providing of information to the Authority in case of airworthiness impairment (continuing airworthiness).
i) Advising the Authority with regard to the issue of airworthiness directives in general based on Service Bulletins through the execution of DASR 21.A.3A
j) Ensuring that the manuals approved by the Authority, including any subsequent revisions (the Aircraft Flight Manual, MMEL, the Airworthiness Limitations section of the Instructions for Continuing Airworthiness and the Certification Maintenance Requirements (CMR) document, where applicable) are checked to determine that they meet the respective requirements, and that they are provided to the Authority for approval.
k) Facilitating Orders, Instructions and Publications (OIP) management in conjunction with Operators per DASR.AO.GEN.05.
l) Providing platform technical advice to operators with respect to flight conditions underpinning Military Permit to Fly (MPTF) applications.
m) Providing technical advice for the carriage of Role equipment per DASR.ORO.75.

3.1.5 Maintenance and Operating Instructions

a) Ensuring the preparation and updating of all maintenance and operating instructions (including instructions for continuing airworthiness and services bulletins) needed to maintain airworthiness (continuing airworthiness) in accordance with relevant airworthiness requirements. For that purpose, the applicant should:
- establish the list of all documents it is managing and that are to be delivered to the operator, such as Flight Manual, ICA, engine configuration and interface documentation (e.g. as required to comply with the applicable airworthiness requirements);
- establish a system to collect in-service experience to be used for the improvement of the instructions;

- define procedures and organisation to produce and issue these documents under the obligation of DASR 21.A.88(h); the procedures should cover:
  - preparation, including the format and language (available industrial standards can be referred to and used);
  - proofreading (checking for clarity, readability, typos, etc.);
  - checking of technical consistency with the corresponding approved change(s), repair(s) or approved data, including the effectivity, description, effects on airworthiness and environmental protection, especially when limitations are changed;
  - checking of feasibility in practical applications; and
  - responsibilities and authorised signatories.

b) In accordance with DASR 21.A.57, DASR 21.A.61, DASR 21.A.107, DASR 21.A.119, DASR 21.A.120A and DASR 21.A.449, ensuring that these documents are provided to all known operators and all involved authorities.

3.1.6 (Reserved).

3.2 Continued Effectiveness of the Continued Airworthiness System

The organisation should establish the means by which the continuing evaluation (system monitoring) of the continued airworthiness system will be performed in order to ensure that it remains effective.

AMC 21.A.76(a)3 – (Type) Continued Airworthiness System – Independent monitoring

The system monitoring function required by DASR 21.A.76(a)(3) may be undertaken by the existing quality management system of the military type-certificate holder organisation.

AMC 21.A.76(c) - (Type) Continued Airworthiness System - Governance

The governance system shall include periodic reviews based on the complexity and nature of the arrangements with the supporting organisation and have appropriate feedback mechanisms to correct deficiencies. The governance function has the intent to ensure contracted continued airworthiness obligations are being executed in accordance with DASR 21.A.44.

GM 21.A.76(c) – (Type) Continued Airworthiness System - Governance

In meeting the requirements of DASR 21.A.76(c) the applicant for a military type-certificate holder organisation approval under DASR 21 Section A Subpart C may adopt the following policy:
The satisfactory integration of the supporting organisation's and applicant's systems should be demonstrated for the activities covered under the applicant's terms of approval. In the event that a supporting organisation holds a military design organisation approval (MDOA), then in accordance with DASR 21.A.76(c), the applicant may take this into account in demonstrating the effectiveness of this integrated system. When any supporting organisation does not hold a MDOA then the applicant will need to establish to its own satisfaction and the satisfaction of the Authority, the adequacy of that organisation's system to support the continued airworthiness system IAW DASR.21.A.76(a).

AMC 21.A.76(d) – Safety Management System

The SMS of the military type-certificate holder organisation shall be based on the size and complexity of the organisation. To meet the intent of DASR.SMS, the military type-certificate holder organisation may integrate their systems into the SMS of the supporting organisation or their Operator or elements of both. The intent of the DASR.SMS is to manage organisational hazards that may contribute or develop into flight safety hazards. The MTCHO is not expected to have a stand-alone SMS given the nature of their function within the DASR, however is required to meet the intent by prioritising safety outcomes to continually drive down organisational hazards that pose risk to the continued airworthiness of the type.

21.A.77 Type Continued Airworthiness Exposition

(a) The military type-certificate holder organisation shall furnish a Type Continued Airworthiness Exposition (TCAE) to the Authority describing, directly or by cross-reference, the organisation, the relevant procedures and the products for which the continued airworthiness will be managed. **AMC, GM**

(b) (Reserved)

(c) The TCAE shall be amended as necessary to remain an up-to-date description of the organisation, and copies of amendments shall be supplied to the Authority.

(d) The military type-certificate holder organisation shall identify the positions responsible for making decisions affecting continued airworthiness in the organisation. **AMC, GM**

AMC 21.A.77(a) - Type Continued Airworthiness Exposition (TCAE) Requirements

The TCAE should contain the following:

a) Information regarding the eligibility of the organisation to hold a military type-certificate holder organisation approval in accordance with DASR 21.A.73. This includes demonstration against the recognition framework criteria (see below) where external design organisations have been engaged via DASR 21.A.2 to provide holder functions.

b) An overview of the product's type design and certification genesis including subsequent modifications (and / or supplemental type-certificates and major repairs if applicable). Access arrangements to type design data for the life of the type should be included here.

c) ADF Configuration, Role and Environment (CRE) (including a link to the Statement of Operating Intent and Usage (SOIU)).

d) ADF capabilities to support the product including specialist support.

e) Key organisations involved in the management of the product's design, including their contractual relationships with Defence; their maturity, experience, capabilities, limitations, responsiveness, quality of product, impartiality, past performance, and future viability; and any gaps in overall coverage. Information related to DASR 21 Subpart J approval held by the organisation or equivalent approvals held under recognised authorities should be included.

f) An assessment of the likelihood of leveraging other military and civil operator's programs to support the Defence product's design, including Defence's ability to influence those programs, and the type of data that will be accessible.

g) Information related to the performance of holder obligations under DASR 21.A.44; DASR 21.A.118A (where applicable) and DASR 21.A.451 (where applicable), including systems, processes and procedures used.

h) Information related to how the organisation, or the design organisation(s) with which they have an agreement, will perform its function as an applicant for and holder of any subsequent major changes to type design after the issue of the MTC.

i) Information related to how the requirements of DASR 21.A.M42 for integration of Products, Weapons and other Systems onto the aircraft will be conducted.

j) Information about the nominated individual responsible for managing the in-house and contracted holder obligations and qualifications and experience compliance information for key personnel.

k) System of managing changes to the TCAE including frequency of review and notifying the Authority of any changes.

l) How the organisation conducts internal governance including over their supporting design organisation(s)/network.

m) A compliance matrix describing how the organisation shall comply with each DASR applicable to fulfil the holder obligations under DASR 21.A.44; DASR 21.A.118A (where applicable) and DASR 21.A.451 (where applicable).

n) Information related to how the requirements of DASR 21.A.3A for reporting failures, malfunction, defects and the rectification of unsafe conditions will be conducted.

o) Information on how the military type-certificate holder organisation will assess approved products from the relevant foreign CAA/MAA for the purpose of exercising approval privileges. This will include their process to determine the complexity of the approved products (major or minor) and assess CRE deltas between the foreign approved product and ADF MTC for applicability.

GM 21.A.77(a) – Type Continued Airworthiness Exposition (TCAE) intent

Type Continued Airworthiness Exposition. The purpose of the TCAE is to inform the Authority of the proposed MTC holder management arrangements for the described platform within the approved MTCHO system. The nature of those arrangements will vary considerably between aircraft types, and will depend on the product's design itself; how the product is operated; and the depth and ability of organisations supporting the product's design.

A TCAE satisfies the following needs:

a) Contains, or references to, the agreement that shows how the government organisation, in cooperation with the supporting design organisation(s) will comply with the requirements of this Subpart, including demonstration of compliance in meeting the holder obligations.

b) Provides confidence that the applicant Government organisation understands the nature of the product's design and its supporting organisations sufficiently to meet the holder obligations.

c) Identifies the Senior Defence Engineer responsible for oversighting delivery of the holder functions.

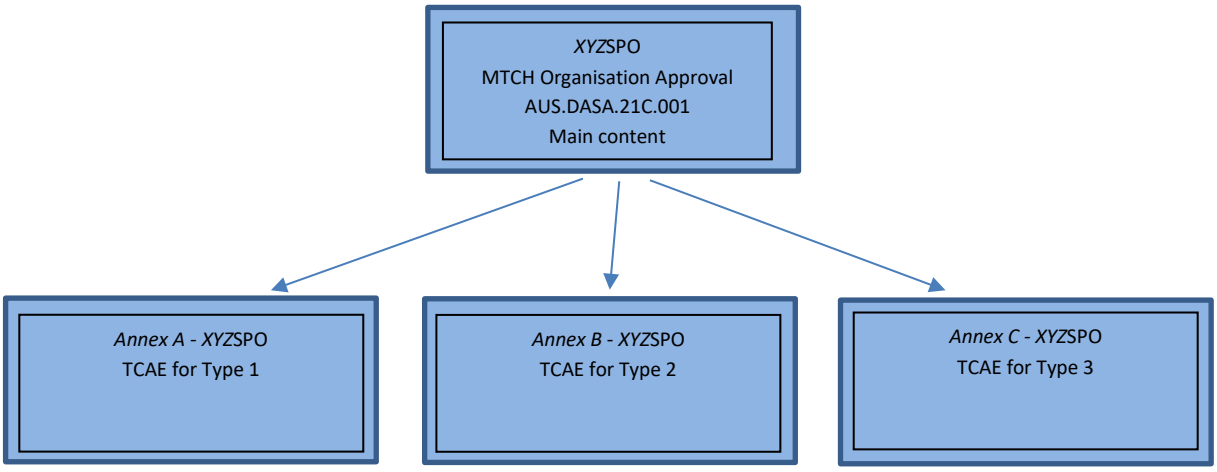
d) Provides key information influencing the specific solution to meet the MTC holder obligations, particularly where obligations are fulfilled via non-commercial arrangement, e.g. via foreign military sales or other global fleet support arrangement.

e) Is a working document able to expand to reflect arrangements for subsequent MTC changes, MSTC issues, and major repair design approvals.

f) Describes how the military type-certificate holder organisation will comply with the requirements of DASR Part 21 Subpart C in order to achieve a MTCHO Approval.

g) Describes how the military type-certificate holder organisation will exercise privileges granted under DASR Part 21 Subpart C.

A TCAE is the document describing the arrangements to support continued airworthiness arrangements of a particular type. This document underpins the inclusion of a type within the terms of approval of the MTCHO per DASR 21.A.80. The TCAE will also describe other elements of the MTCHO per AMC 21.A.77(a) that support the organisational approval such as resources, responsibilities and governance. For MTCH organisations that manage more than one type (per their TOA), a number of the organisational elements may be common across their types. To manage any commonality efficiently, the TCAE for each type can be structured stemming from an organisational document that describes the common elements and processes. For example:



AMC 21.A.77(d) – Statement of qualifications and experience

QUALIFICATIONS AND EXPERIENCE REQUIREMENTS FOR KEY PERSONNEL

SENIOR DEFENCE ENGINEER

Qualifications: Bachelor of Engineering degree in Mechanical, Mechatronics, Aerospace, Aeronautical, Electronics, Software or Electrical Engineering.

NOTE: Qualifications shall be Australian accredited or assessed to be equivalent to Australian qualification by Engineers Australia.

Experience:

1. Chartered Professional Engineer (CPEng) in the Institute of Engineers Australia (IEAust) or an equivalent professional body recognised by the IEAust.

2. Eight years of aviation experience.

GM 21.A.77(d) - Statement of the qualifications and experience

1. Purpose

This GM provides guidelines on the following points:

- Who are the persons covered by DASR 21.A.77(d)?
- What is requested from the applicant for these persons?

2. Who are the persons?

Three different types of functions are named or implicitly identified in the requirements of DASR 21 Subpart C or in associated AMC and GM, using qualified and experienced personnel:

- the Accountable Manager (AM) [see DASR GM 21.A.76(a) paragraph 3.1.2, DASR GM 21.A.78 paragraph 4.1, DASR GM 21.A.88(b)]
- the Senior Defence Engineer (SDE) [see DASR GM to 21.A.76(a) paragraph 3.1.4, DASR GM 21.A.78 paragraph 4.2, DASR GM 21.A.88(b)]
- the personnel making decisions affecting continued airworthiness:
  - personnel making decisions affecting continued airworthiness, especially those linked with the DASR 21.A.88 privileges (signing documents for release, granting the approval of changes and repairs through validation).

3. Kind of statement

3.1 Accountable Manager

The Accountable Manager should provide the necessary resources for the proper functioning of the military type-certificate holder organisation. A statement of the qualification and experience of the Accountable Manager is normally not required.

3.2 Senior Defence Engineer

The person or persons nominated should represent the management structure of the organisation and be responsible through to the Accountable Manager for the execution of all functions as specified in DASR 21 Subpart C. Depending on the size of the organisation, the functions may be delegated to subordinate managers.

The nominated managers should be identified and their credentials furnished to the Authority on DASR Form 4—Nominated Personnel Approval, in order that they may be seen to be appropriate in terms of relevant knowledge and satisfactory experience related to the nature of the activities as performed by the organisation.

The responsibilities and the tasks of each individual manager should be clearly defined, in order to prevent uncertainties about the relations, within the organisation. Responsibilities of the managers should be defined in a way that all responsibilities are covered.

3.3 Personnel making decisions affecting continued airworthiness (where applicable)

For these personnel, no individual statement is required. The applicant should show to the Authority that there is a system to select, train, maintain and identify them for all tasks where they are necessary.

The following guidelines for such a system are proposed:

These personnel should be identified in the exposition, or in a document linked to the exposition. This, and the corresponding procedures, should enable them to carry out the assigned tasks and to properly discharge associated responsibilities.

The needs, in terms of quantity of these personnel to sustain the organisation’s activities, should be identified by the organisation.

These personnel should be chosen on the basis of their knowledge, background and experience.

When necessary, complementary training should be established, to ensure sufficient background and knowledge in the scope of their authorisation. The minimum standards for new personnel to qualify in the functions should be established. The training should lead to a satisfactory level of knowledge of the procedures relevant for the particular role.

Training policy forms part of the continued airworthiness system and its appropriateness forms part of investigation by the Authority within the organisation approval process and subsequent surveillance of persons proposed by the organisation.

This training should be adapted in response to experience gained within the organisation.

The organisation should maintain a record of these personnel which includes details of the scope of their authorisation. The personnel concerned should be provided with evidence of the scope of their authorisation.

The following minimum information should be kept on record:

a) Name;
b) Date of birth;
c) Experience and training;
d) Position in organisation;
e) Scope of the authorisation;
f) Date of first issue of the authorisation;
g) If appropriate, date of expiry of the authorisation;
h) Identification number of the authorisation.

The record may be kept in any format and should be controlled.

- Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records do not become accessible to unauthorised persons.
- Personnel should be given access to their own record.
- Under the provision of DASR 21.A.84, the Authority has a right of access (subject to contract) to the data held in such a system.
- The organisation should keep the record for at least 2 years after a person has ceased employment with the organisation or withdrawal of

21.A.78 - Approval Requirements

The military type-certificate holder organisation shall demonstrate, on the basis of the information submitted in accordance with DASR 21.A.77 that, in addition to complying with DASR 21.A.76: **GM**

(a) The implemented arrangements are adequately resourced to ensure the continued airworthiness of the product;

(b) There is full and efficient coordination between organisations. **GM**

GM 21.A.78 – Requirements for approval

1. General - The data submitted in accordance with DASR 21.A.77 should show that sufficient skilled personnel are available and suitable technical and organisational provisions have been made for carrying out continued airworthiness activities as described by DASR GM to 21.A.76(a).

2. Personnel - The applicant should show that the personnel available to comply with DASR 21.A.78(a) are, due to their qualifications and number, able to undertake the continued airworthiness obligations of the product in collaboration with their supporting organisation.

3. (Reserved).

4. Organisation - The data submitted in accordance with DASR 21.A.77 should show that:

4.1 The Accountable Manager for which an application for approval has been made, has the direct or functional responsibility for all departments of the organisation which are responsible for the continued airworthiness of the product. The Accountable Manager carries the ultimate responsibility for compliance of the organisation with DASR 21 Subpart C.

4.2 A Senior Defence Engineer, or equivalent has been established and staffed on a permanent basis to act as the focal point for co-ordinating continued airworthiness matters (see DASR GM1 to 21.A.76(a) paragraph 3.1.4); The SDE is to report directly to the Accountable Manager.

4.4 Responsibilities for all tasks related to continued airworthiness obligations are assigned in such a way that gaps in authority are excluded.

4.6 Co-ordination between technical departments and the persons in charge of the system monitoring required by DASR 21.A.76(a)(3) has been established:

a) to ensure quick and efficient reporting and resolution of difficulties encountered using the Type Continued Airworthiness Exposition (TCAE) and associated procedures;

b) to maintain the continued airworthiness system;

c) to optimise auditing activities.

4.7 Governance arrangements have been put in place to assure the execution of holder services and support provided by contracted supporting organisations in accordance with DASR 21.A.76(c).

GM 21.A.78(b) – Full and efficient co-ordination

The military type-certificate holder organisation is expected to manage the continued airworthiness of the type design after initial certification via undertaking obligations in accordance with DASR 21.A.44, 21.A.118A (where applicable) and 21.A.451 (where applicable). In order to enable the end function, the military type-certificate holder organisation will be required to manage and co-ordinate each of the supporting organisations that undertake functions on their behalf. Conducting regular system safety working groups (SSWGs) amongst each of the stakeholder groups is one means to promote full and efficient co-ordinate between the supporting organisations. The various SSWGs convened by the military type-certificate holder organisation should have agendas that include ongoing hazard management, occurrence reporting and rectification, integration of changes, structural/propulsion integrity and provision of manuals. As the platform MTC steward, the military type-certificate holder organisation is expected to have appropriate interfaces and the arrangements to support the required reach back into the OEM.

21.A.79 - Changes in Continued Airworthiness System

After the issue of a military type-certificate holder organisation approval, each change to the continued airworthiness system that is significant to impact the continued airworthiness of the product, shall be approved by the Authority. An application for approval shall be submitted in writing to the Authority and the military type-certificate holder organisation shall demonstrate to the Authority, on the basis of submission of proposed changes to the Type Continued Airworthiness Exposition, and before implementation of the change, that it will continue to comply with this Subpart after implementation. **GM**

GM 21.A.79 – Significant changes in the continued airworthiness system

Significant changes to the continued airworthiness system shall be processed via a DASR Form 80C.

The following changes to the continued airworthiness system should be considered as 'significant' to the continued airworthiness of the products:

1. Organisation

- Relocation to new premises
- Change in the industrial organisation (supporting organisations)
- Change in the parts of the organisation that contribute directly to the continued airworthiness
- Change to the independent monitoring principles DASR 21.A.76(a)(3).

2. Responsibilities

Change of the management staff:

- the Accountable Manager of the organisation
- the Senior Defence Engineer
- New distribution of responsibilities affecting continued airworthiness.

3. Procedures

Change to the principles of procedures related to:

- the configuration control, when continued airworthiness is affected;
- the identification, assessment, management and rectification of unsafe conditions to the type design impacting continued airworthiness (see DASR 21.A.3A);
- the acceptability of tasks undertaken by supporting organisations (DASR 21.A.76(c));
- the approval of certain repairs (DASR 21.A.87(c)(5));
- the approval of certain major changes to a type-certificate (DASR 21.A.87(c)(8));

- the issue of information and instructions under the obligation of DASR 21.A.57 & DASR 21.A.61;
- Integration of Weapons, systems and changes (DASR 21.A.M42);
- The management of structural and propulsion integrity (DASR 21.A.44c);
- Governance arrangements over the supporting organisations.

4. Resources

Substantial reduction in number and/or experience of staff/or changes to supporting organisation (see DASR 21.A.78a)).

21.A.80 - Terms of approval

The terms of approval shall identify the products for which the organisation holds a military type-certificate holder organisation approval, and the functions and duties that the organisation is approved to perform to maintain the continued airworthiness of products. Those terms shall be issued as part of a military type-certificate holder organisation approval. **GM**

GM1 21.A.80 – Terms of approval

1. The terms of approval are stated on the certificate of approval issued by the Authority. The certificate states the scope of work and the products, changes or repairs thereof, with the appropriate limitations for which the approval has been granted. For the military type-certificate holder organisation approval the list of product types covered by the continued airworthiness system should be included.

2. Approval of a change in the terms of approval in accordance with DASR 21.A.81 will be confirmed by an appropriate amendment of the certificate of approval.

3. The certificate references the type continued airworthiness expositions (TCAE) of the organisation, provided in accordance with DASR 21.A.77. This TCAE defines the tasks which may be performed under the approval.

4. The holder of this approval is entitled to list the privileges granted with the approval, pursuant to DASR 21.A.87(c) and DASR 21.A.87(d)

21.A.81 - Changes to Terms of approval

Each change to the terms of approval shall be approved by the Authority. An application for a change to the terms of approval shall be made in a form and manner established by the Authority. The military type-certificate holder organisation shall comply with the applicable requirements of this Subpart. **AMC**

AMC 21.A.81 – Applications – Form and manner

DASR Form 80C—Application for Military Type Certificate Holder Organisation approval and significant changes, is to be obtained from the Authority, and completed by the Accountable Manager of the organisation. The completed form (or changes there-of), an outline of the type continued airworthiness exposition (or changes there-of), and details of the proposed terms of approval (or changes there-of) are to be forwarded to the Authority.

21.A.84 - Investigations

(a) The military type-certificate holder organisation shall make arrangements that allow the Authority to make any investigations, including investigations of their supporting organisations, necessary to determine compliance and continued compliance with the applicable requirements of this Subpart. **GM**

(b) (Reserved)

GM 21.A.84(a) - Investigations

The Authority may grant a delegation to a Commonwealth person to make any investigations necessary for the Military type-certificate holder organisation and/or their supporting organisations for the specific aircraft types under this Subpart.

Arrangements that allow the Authority to make investigations include the complete military type-certificate organisation assisting and co-operating with the Authority in performing inspections and audits conducted during initial assessment and

subsequent surveillance. Assistance to the Authority includes all appropriate means associated with the facilities of the military type-certificate organisation to allow the Authority to perform these inspections and audits, such as a meeting room and office support.

21.A.85 - Findings

(a) When during the investigations referred to in DASR 21.A.84, objective evidence is found showing non-compliance of the holder of a military type-certification holder organisation approval with the applicable requirements of this DASR, the finding shall be classified in accordance with DASR GR.60.

21.A.86 - Duration and continued validity

(a) A military type-certificate holder organisation approval can be issued for an unlimited duration. It shall remain valid for that duration unless:

1. The military type-certificate holder organisation fails to demonstrate compliance with the applicable requirements of this Subpart; or
2. The Authority is prevented by the holder or any of its supporting organisation to perform the investigations in accordance with DASR 21.A.84; or
3. There is evidence that the continued airworthiness system cannot maintain satisfactory control and supervision of the continued airworthiness of products under the approval; or
4. The certificate has been surrendered or revoked under the applicable administrative procedures established by the Authority.

(b) Upon surrender or revocation, the certificate shall be returned to the Authority.

21.A.87 - Privileges

(a) (Reserved);

(b) (Reserved);

(c) For a military product having an approval from a recognised Military Aviation Authority, the holder of military type-certificate holder organisation approval shall be entitled, within its terms of approval and under the relevant procedures of the continued airworthiness system:

1. To classify changes to a type-certificate or to a supplemental type-certificate and repairs as 'major' or 'minor'; **AMC**
2. (Reserved);
3. (Reserved);
4. (Reserved);
5. To approve certain major repair designs under Subpart M to products or Auxiliary Power Units (APUs); **AMC1, AMC2**
6. (Reserved);
7. (Reserved);
8. To approve certain major changes to a type-certificate under Subpart D; and **AMC1, AMC2**
9. (Reserved);

(d) For a military product derived from a civil type-certified product, the holder of military type-certificate holder organisation approval shall be entitled, within its terms of approval and under the relevant procedures of the continued airworthiness system:

1. To declare the applicability, through validation of no impact to the military certification basis and the intended use, of the following when it is has already been approved by a recognised civil aviation authority: **AMC**
   - i. a modification or repair; or
   - ii. an instruction for continuing airworthiness; or
   - iii. revisions to the flight manual; or

iv. revisions to the maintenance manual.

2. To approve the following, when it is has already been approved by a recognised civil aviation authority and when it has been declared to be applicable to the military product: **AMC**
   i. a major modification or repair; or
   ii. revisions to the flight manual; or
   iii. revisions to the approved sections of the maintenance manual.

AMC 21.A.87(c)(1) - Procedure for the classification of changes to a type-certificate (TC) or a supplemental type-certificate (STC) and of repair designs as minor and major

1. INTENT

This AMC provides means to develop a procedure for the classification of changes to a TC, or to that part of the product covered by an STC, and repair designs. Each MTC Holder should develop its own internal classification procedure following this AMC, in order to obtain the associated privilege under DASR 21.A.87(c)(1).

This privilege is intended to be used to classify changes to a TC, or to that part of a product covered by an STC and repair design that has been produced by the original certifying authority. The original certifying authority is the Recognised Military Airworthiness Authority (MAA), which was leveraged during DASA certification. Design approvals that do not leverage prior certification should not be classified under this privilege. This should only be done by an approved design organisation under DASR 21.A.239(c)(1).

The intent of this procedure is for the MTC Holder is to classify changes based on the scope or complexity of the activities required to validate that the prior certification is suitable for use on the ADF type.

2. PROCEDURE FOR THE CLASSIFICATION OF CHANGES TO A TC, OR TO THAT PART OF THE PRODUCT COVERED BY AN STC, AND REPAIR DESIGNS

2.1 Content

The procedure should address the following points:

- the identification of changes to a TC, or to that part of the product covered by an STC, and repair designs;
- classification;
- justification of the classification;
- authorised signatories; and
- supervision of changes to a TC, or to that part of the product covered by an STC, and repair designs initiated by subcontractors.
- For changes to TC, or to that part of the product covered by an STC, criteria used for classification. (The criteria should align with DASR 21.A.91 and DASR GM 21.A.91 however can be tailored to account for differences in the MAA airworthiness framework).
- For repairs, criteria used for classification should be in compliance with DASR 21.A.435 and DASR GM 21.A.435.

2.2 Identification of changes to a TC, or to that part of the product covered by an STC, and repair designs

The procedure should indicate how the following are identified:

- major changes to a TC, or to that part of the product covered by an STC or major repairs;
- those minor changes to a TC, or to that part of the product covered by an STC or minor repairs where additional work is necessary to demonstrate compliance with the applicable airworthiness and environmental protection requirements; and
- other minor changes to a TC, or to that part of the product covered by an STC or minor repairs requiring no further demonstration of compliance.

2.3 Classification

The procedure should show how the effects on airworthiness and environmental protection are analysed, from the very beginning, by reference to the applicable requirements.

If no specific airworthiness or environmental protection requirements are applicable to the change or repairs, the above review should be carried out at the level of the part or system where the change or repair is integrated and where specific airworthiness or environmental protection requirements are applicable.

2.3.1 (Reserved)

2.3.2 Consultation with Primary Certifying Authority

Where the change leverages prior certification of a recognised primary certifying Military Aviation Authority (MAA), the procedure should state requirements for engaging the primary certifying authority in determining applicable certification basis elements.

2.4 Justification of the classification

All decisions of classification of changes to a TC, or to that part of the product covered by an STC, and repair designs as 'major' or 'minor' should be recorded and, for those which are not straightforward, also documented. These records should be easily accessible to the Authority for sample check.

Where the primary certifying authority MAA's airworthiness framework does not include a recognised change classification, the justification should also document any additional considerations specific to the MAA's airworthiness framework that are relevant in assessing against the major/minor criteria in section 2.1

2.5 Authorised signatories

All classifications of changes to a TC, or to that part of the product covered by an STC, and repair designs should be accepted by an appropriate authorised signatory, belonging to or tasked by the Senior Defence Engineer, as explained in GM 21.A.77(d).

The procedure should indicate the authorised signatories for the various products listed in the terms of approval. For those changes or repairs that are handled by supporting organisations, as described under paragraph 2.6, it should be described how the military type-certificate holder organisation manages its classification responsibility.

2.6 Supervision of changes to a TC, or to that part of the product covered by an STC, and repairs designs initiated by supporting organisations.

The procedure should indicate, directly or by cross-reference to written procedures, how changes to that part of the product covered by an STC, and repair designs may be initiated and classified by supporting organisations and are controlled and supervised by the military type-certificate holder organisation.

AMC1 21.A.87(c)(5) and (8) - Procedure for the approval of a major repair, a major change to a type-certificate (TC), or a supplemental type-certificate (STC) by a military type-certificate holder organisation (MTCHO) under their privileges

1. Definition of 'certain major repairs'

'Certain major repairs' for which privileges may be granted as per DASR 21.A.87(c)(5) are for major repairs that leverage prior certification from a recognised CAA/MAA to products or auxiliary power units (APUs) for which the military type-certificate holder organisation holds the military type-certificate (MTC) or the supplemental type-certificate (MSTC).

1.1 Criteria for limitations on eligibility

An Authority approval may be required in cases of major repairs proposed by the military type-certificate holder organisation if the major repair is:

(a) related to a new interpretation of any item of the certification basis as used for the type certification (such as the airworthiness requirements, certification review items for special conditions, equivalent safety findings, deviations or 'elect to comply'); and
(b) related to the application of an airworthiness code or standard that is different from the one used for type certification.

Note: This should be established at the time of granting the privilege to the military type-certificate holder organisation, or later through an Authority-agreed procedure.

2. Definition of 'certain major changes'

'Certain major changes' for which privileges may be granted as per DASR 21.A.87(c)(8) are changes that leverage prior certification from a recognised CAA/MAA, where past similar changes required little or no involvement from the Authority.

The similarity of the changes is to be seen in terms of the design, the installation, and the operational characteristics, whereas their repetitiveness is seen in terms of the applicable requirements and the compliance demonstration.

In this context, a 'requirement' means any element of the type-certification basis as specified in DASR 21.A.17A, or the environmental protection requirements (where applicable) as specified in DASR 21.A.18. The prior certification in this context is from the primary certifying authority. The primary certifying authority is the recognised MAA which was leveraged during original certification by DASA.

2.1 Criteria for limitations on eligibility

The following types of changes are not eligible:

(a) changes that require a revision to a type certificate data sheet (TCDS) (e.g. the introduction of a derivative model or variant) or a type certificate data sheet for noise (TCDSN);
(b) changes that require an amendment to the existing certification basis by a special condition, equivalent safety finding, deviation or 'elect to comply';
(c) changes that revise airworthiness limitations or operating limitations, unless otherwise agreed with the Authority;
(d) changes that are intended to be used as alternative method of compliance (AMOC) to an airworthiness directive (AD);
(e) changes that are made mandatory by an AD or that are the terminating action of an AD;
(f) changes that are classified as 'significant' in accordance with DASR 21.A.101;
(g) changes for which, in the affected area and for the operations for which the design is to be certified, more conservative airworthiness requirements are applicable which were not used in the description of the Authority-approved product certification basis, e.g. in the case of a type, model or modification with a later, more stringent certification basis;
(h) changes that affect the noise and/or emissions characteristics of the changed product, unless otherwise agreed with the Authority;
(i) changes that affect a part or system, a single failure of which may have a catastrophic effect upon the product, and for which critical characteristics have been identified, which should be controlled to ensure the required level of integrity;
(j) changes to engines or propellers, a single failure of which may have a hazardous effect upon the product, and for which critical characteristics have been identified, which should be controlled to ensure the required level of integrity; and
(k) changes for which a non-compliance has been found in the referenced change during the continued-airworthiness process.

3. Criteria for major repairs, major changes and STCs for which the privileges of DASR 21.A.87(c)(5) and (8) may be granted

The following criteria need to be met:

(a) Prior certification

The change to the product has prior certification from the primary certifying authority and that authority is a recognised MAA.

An assessment of the CRE delta between the primary certifying authority's requirements and the product certification basis does not identify any deltas.

(b) Similarity

The installation on the product, the design, the operation, and the equipment qualification are basically the same as in projects for which the Authority has already been involved and issued an approval for.

(c) Repetitiveness of the certification process

The whole certification process is repetitive, i.e. identical to, or part of, an already approved referenced process. For a change or repair that is a part of the referenced 'certain major repairs', 'certain major changes' or 'certain supplemental type-certificates', the certification process is still identical to the one for the affected change. This is the case when each compliance demonstration is performed to the same extent in accordance with the same requirements, GM, and content of the interpretative material, as well as with the same means and method of compliance (not only the same means-of-compliance (MoC) code).

Note: In this AMC, a 'requirement' means any element of the type-certification basis as specified in DASR 21.A.17A, or the environmental protection requirements (where applicable) as specified in DASR 21.A.18.

(d) Performance and experience in previous projects:

To demonstrate 'similarity' and 'repetitiveness, the Authority should have classified the level of performance of the organisation as 'medium' or 'high' during at least the latest project referenced.

In addition, the Authority should have classified the likelihood of an unidentified non-compliance as 'low' or 'very low' for all the included compliance demonstration items (CDIs) identified in at least the latest project referenced, to demonstrate 'similarity' and 'repetitiveness' (applying the criteria for the determination of the Authority's level of involvement (LoI) in product certification, see DASR AMC 21.A.15(b)(6).

The process to obtain and to use the privileges of DASR 21.A.87(c)(5) and (8) is described in AMC2 to DASR 21.A.87(c)(5) and (8).

AMC2 21.A.87(c)(5) and (8) - Procedure for obtaining a privilege to approve certain major repairs and certain major changes

This AMC describes the process to be followed in order to obtain and use the privilege to approve 'certain major repairs' and 'certain major changes' to a TC, as defined in points 1 and 2 of DASR AMC1 21.A.87(c)(5) and (8).

1. PROCESS FOR OBTAINING A PRIVILEGE

An MTCHO that applies for the privileges referred to in DASR 21.A.87(c)(5) and (8) should do the following:

(a) Submit to the Authority an application for a significant change in the continued airworthiness assurance system (see DASR 21.A.79 and 21.A.81).

(b) Establish internal procedures for the application of the privilege covering the following elements, and add them to the application:

(1) The definition of the 'list associated with the privilege' of certain major repairs/changes/STCs. The 'list associated with the privilege' is a list of all 'certain major changes', and 'certain major repairs' (or families thereof) plus the associated 'justification document' references for which the privileges as per DASR 21.A.87(c)(5) and (8) have been granted.

(2) A 'justification document' for a 'certain major repair', 'certain major change' or a 'certain STC', as applicable. The 'justification document' should contain:

(i) The reference(s) to the Authority-approved major change(s), STC(s) and major repair(s), which is (are) used to demonstrate the MTCHO's experience and performance.

NOTE: The number of already Authority-approved major change(s), STC(s) or major repair(s) used to demonstrate the MTCHO's experience and performance is based on an assessment of the scope of the 'certain major repairs', 'certain major changes' or 'certain supplemental type-certificates' which is requested to be added to the 'list associated with the privilege', as well as on the performance of the MTCHO during previous projects.

(ii) The certification programme(s) of the major change(s), STC(s), or major repair(s), accepted by the Authority, used to demonstrate the applicant's experience and performance.

(iii) The applicable product configuration(s).

The applicant should list the type(s) and model(s) to which the major change(s)/STC(s)/repair(s) applies (apply) or may apply. Exceptionally, this may be done for a dedicated product, system or equipment if the type or model has no technical influence on the major change(s)/STC(s)/repair(s), i.e. when the installation issues are negligible (e.g. the TCAS 7.1 software change for a certain equipment), such a listing is not mandatory, but it needs to be justified.

(iv) The list of 'requirements' for the demonstration of compliance, if not identical to the ones referenced in the certification programme.

(v) The certification process, if not identical to the one referenced in the certification programme.

(vi) A detailed description with all the technical data relevant to the installation of the product, the design, the operation and the qualification which ensures the proper use of the privilege for future major changes, major repairs or STCs. This description should include the criteria defining the conditions that should be met in order to apply the privileges.

(vii) Any other limits on the use of the privilege.

(3) The assessment of the acceptability of using the privilege for major repairs, major changes or STCs against the 'list associated with the privilege' and the 'justification document' of 'certain major repairs', 'certain major changes' or 'certain STCs'.

(4) The approval process, including the templates to be used, the authorised signatories, records management and the provision of a 'summary list' of major changes, major repairs and STCs approved under the privilege of DASR 21.A.87(c)(5) and (8). This process should clarify that the approval is issued under the MTCHO's privilege.

The persons authorised under the privilege of DASR 21.A.87(c)(5) and (8) should be identified by their names, signatures and scopes of authority in the appropriate documents and referenced in the procedure.

A 'summary list' of all the major changes, STCs and major repairs approved under a privilege should be provided to the Authority on a regular basis, as agreed with the Authority.

(5) Extension of the 'list associated with the privilege' after the privilege is granted.

After the granting of the privilege, the initial list of 'certain major repairs', 'certain major changes' and 'certain STCs' under the privilege may be further extended by an agreement with the Authority, as shown in Section 2 as well as in Figures 2 and 3 below.

(c) Identify in the 'list associated with the privilege' the eligible major changes, major repairs or STCs proposed for inclusion in the scope of the privilege (see also DASR AMC1 21.A.87(c)(5) and (8)).

(d) Provide a 'justification document' for each proposed certain major change, certain major repair or certain STC identified under (c) above.

Note: The 'list associated to the privilege' identifying all certain major repairs, certain major changes and certain STCs and the associated 'justification document(s)' are to be referenced in the MTCHO procedure mentioned under (b) above.

The process for obtaining the privilege, referred to in DASR 21.A.87(c)(5) and (8), is summarised in Figure 1 below:

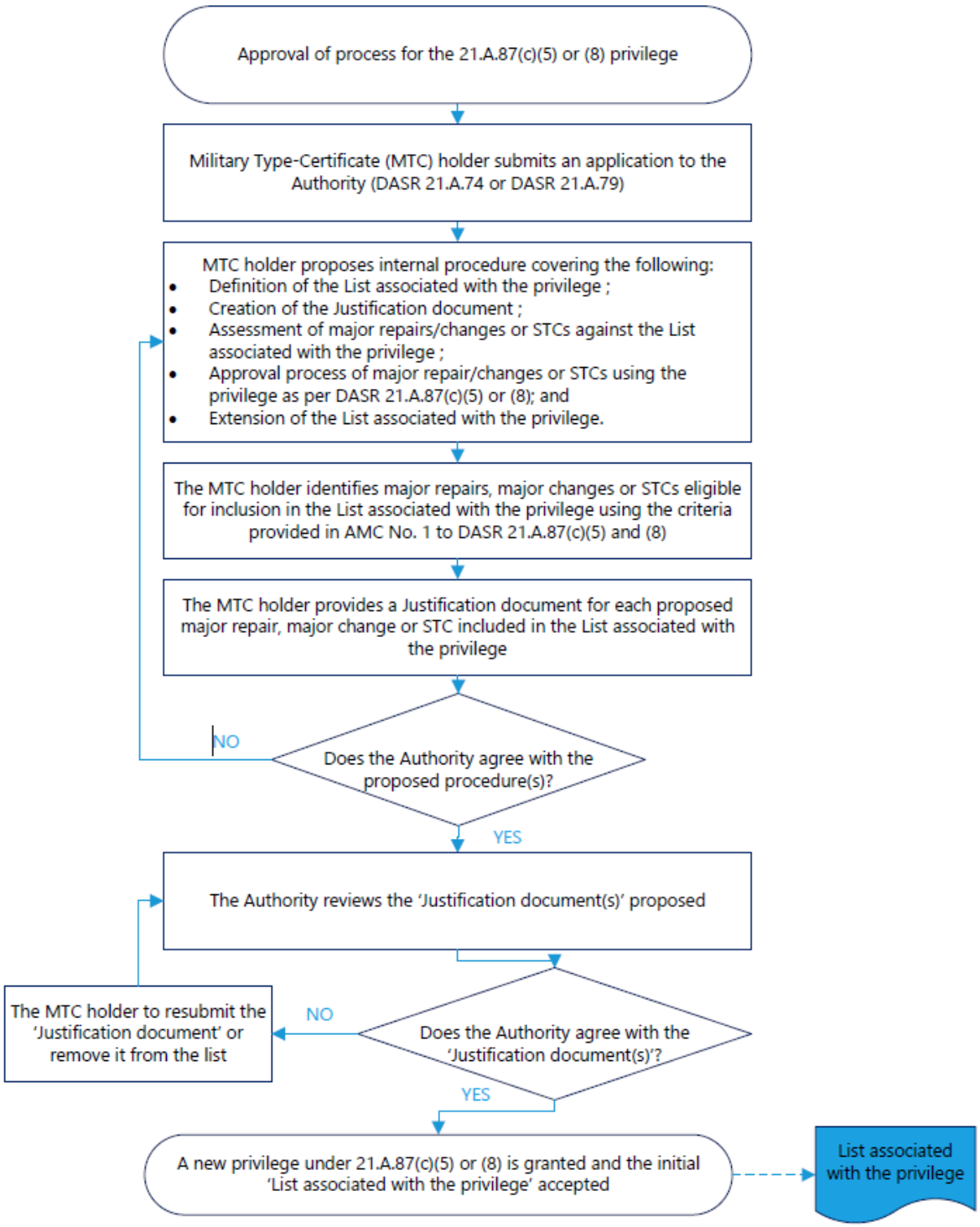


Figure 1

The privilege referred to in DASR 21.A.87(c)(5) and (8) may be used by an MTCHO for the approval of major repairs, major changes or STCs, as applicable, under the following conditions:

(a) the privilege has already been granted by the Authority;
(b) the major repair/change/STC to be approved falls under the 'List associated with the privilege' agreed by the Authority; and
(c) the criteria established in the relevant 'Justification document' are met and the relevant assessment is recorded.

If all the above conditions are met, the privilege may be used and the approval of major repairs, major changes or STCs, as applicable, can be obtained by the MTCHO without the Authority's involvement.

2. EXTENSION OF THE 'PRIVILEGE LIST' OF 'CERTAIN MAJOR REPAIRS', 'CERTAIN MAJOR CHANGES' OR 'CERTAIN STCs' AFTER THE PRIVILEGE IS GRANTED

When the MTCHO intends to update the 'List associated with the privilege', a 'Justification document' needs to be provided to the Authority, as described in Section 1(b)(2) above. After the Authority agrees with the updated 'privilege list' as part of the MTCHO's procedure, the MTCHO may proceed as per Section 4 below.

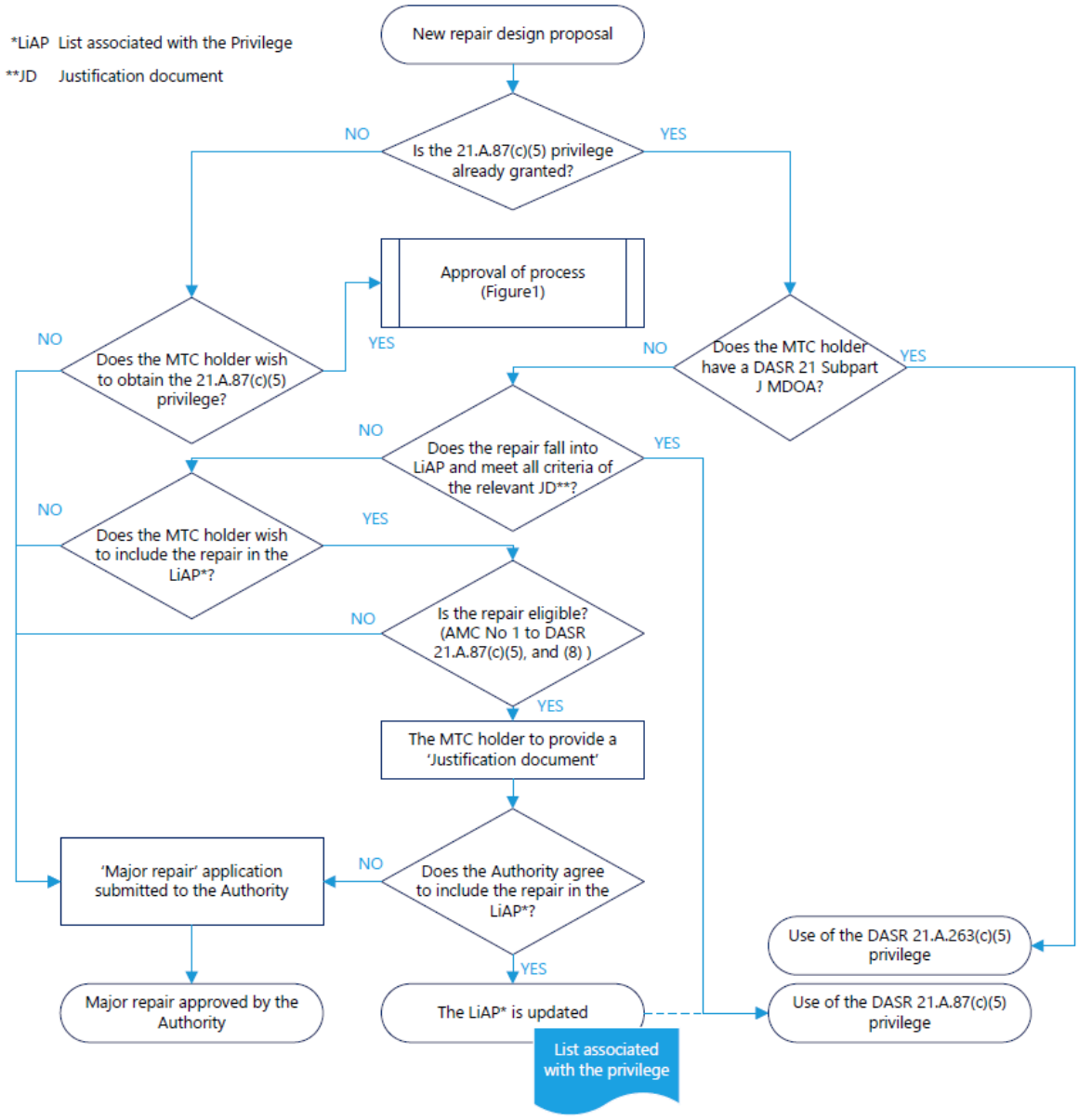


Figure 2

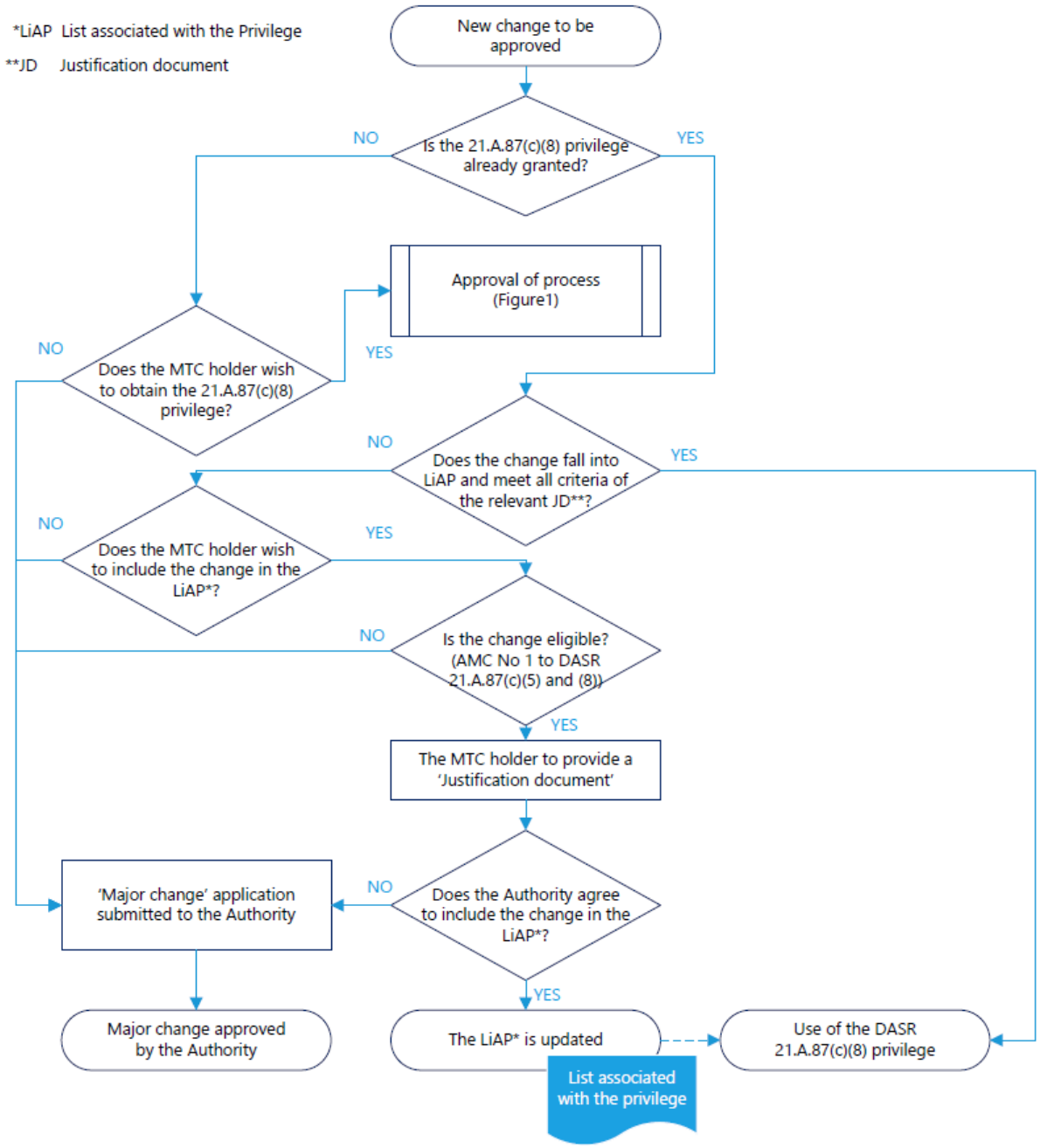


Figure 3

3. MTCHO APPROVAL OF A MAJOR REPAIR UNDER A MAJOR REPAIR PRIVILEGE — SPECIFIC CONSIDERATIONS

MTCHO's that intend to approve a major repair design under the privilege of DASR 21.A.263(c)(5) should ensure that:

(a) the type-certification basis for the product, part or appliance to be repaired is identified, together with all the other relevant requirements;

(b) the records and substantiation data underpinning the validation of the prior certification from the primary certifying authority, are provided to the Authority for review; and

(c) for repair designs created for a specific product serial number, an assessment is made as to whether or not the repair design is affected by the presence of any embodied STC, change or repair.

4. MTCHO'S APPROVAL BASED ON THE PRIVILEGE FOR A MAJOR CHANGE — SPECIFIC CONSIDERATIONS

For the approval of major changes by an MTCHO under the privilege of DASR 21.A.87(c)(8), the following should be considered.

4.1 Eligibility of the proposed major change

The MTCHO should assess the proposed major change against the 'list associated with the privilege' and the 'justification document' of 'certain major changes' or in order to determine whether the criteria of DASR AMC1 21.A.87(c)(8) are met.

4.2 Forms for approval certificates

For the issuance of an approval under their privilege the MTCHO should use forms provided by the Authority.

If such forms are not available or if the MTCHO chooses to use their own forms, it must be ensured that at least the information as requested by the Authority is presented.

4.3 Approval under the MTCHO's privilege

When the MTCHO makes use of the privilege of DASR 21.A.87(c)(8), they should include the following in the certification data package:

- a record of the assessment as described in 4.1 above;
- the reference to the 'justification document';
- the applicable product configuration;
- the applicable airworthiness requirements or environmental protection requirements and methods of compliance;
- the effects, if any, on limitations and on the approved documentation;
- the evidence of the validation of the prior certification from the primary certifying authority IAW DASR AMC 21.A.20;
- the approval document containing the statement of the approval under the privilege of DASR 21.A.87(c) (8) by an authorised signatory; and
- the date of approval.

In any case, before the major change is approved under the MTCHO privilege, the MTCHO should ensure that the Part 21 requirements, in particular DASR 21.A.97, 21.A.115 and 21.A.433, are met.

4.4 Authorised signatories

An authorised person that is identified and authorised as described in Section 1(b)(4) above should sign the approval under the privilege of DASR 21.A.87(c)(5 and 8).

4.5 Summary list

The MTCHO should add to the 'summary list' as described in Section 1(b)(4) above the major change, approved under the privilege of DASR 21.A.263(c)(5 and 8).

AMC 21.A.87(d)(1) – Declaration of applicability

1. **Intent -** This acceptable means of compliance provides means for a military type-certificate holder organisation to obtain the associated privileges under DASR 21.A.87(d)1 to declare the applicability of;
    - a modification or repair, or
    - of an instruction for continuing airworthiness, or
    - of a modification to the flight manual, or
    - of a modification to the maintenance manual,

    as relevant, when it is already approved by a recognised Civil Aviation Authority (CAA), to a product derivate that is ostensibly equivalent to the civil type-certified product.

    Note: Ostensibly equivalent relates to having the configuration, role and environment (CRE) predominately the same where changes between types are:
    - few in nature,

- easily identified,
- simple to understand and
- considered to have no appreciable effect on airworthiness.

2. **Procedure for declaring the applicability** - In order to obtain the associated DASR 21.A.87(d)1 privilege for a scope of derivative product, an applicant should respect the following conditions:

a) Agree with the authority the procedures to assess within the scope of its organisational capability per DASR 21 Subpart C, a modification, or an instruction for continuing airworthiness, or a modification to the flight manual or a modification to the maintenance manual being already approved by a recognised CAA. Such procedures shall include obtaining the Instruction for Continuing Airworthiness (ICA) and manuals related to the change and addressing any caveats or conditions of the CAA recognition.

b) Develop its own internal procedure addressing the following points as agreed with the Authority:
- confirm the certification is within the scope, conditions and caveats specific to DASA Recognition of the certifying CAA;
- identification of any CRE deltas requiring assessment;
- confirm no CRE delta impacts applicability of the CAA approved product;
- document to formalise the declaration of applicability and conditions;
- records.

c) Assessment results should be documented and recorded. These records should be easily accessible to the Authority for sample check.

d) The declaration of applicability should be signed by an appropriate authorised signatory.

AMC 21.A.87(d)(2) - Approval

1. **Intent -** This acceptable means of compliance provides means for a military type-certificate holder organisation to obtain the associated privileges under DASR 21.A.87(d)2. to approve
- a modification or repair,
- or the approved parts of the maintenance manual,
- or of the flight manual, and their evolutions,

when it is already approved by a recognised Civil Aviation Authority (CAA) and when it has been declared applicable to the product derivate that is ostensibly equivalent to the civil type certified product.

Applying this privilege implies that no additional work to show compliance to the (military) airworthiness requirements are needed. Approval of minor changes is to be considered under relevant privileges DASR 21.A.263(c)(2).

2. **Procedure for Approving** - In order to obtain the associated DASR 21.A.87(d)2. privilege, an applicant should comply with the following:

a) The conditions related to privileges DASR 21.A.87(d)1..

b) Its own internal approval procedure as agreed by the Authority.

In addition, the applicant should:

c) Define how the approval under the organisation privilege will be formalized and how the link with the civil approval and applicability declaration completed under DASR 21.A.87(d)1. is made visible.

d) Maintain a summary list of approvals under this privilege to the Authority on a regular basis as agreed with the Authority.

21.A.88 - Obligations of the Military Type-Certificate Holder Organisation

The holder of a military type-certificate holder organisation approval shall:

(a) Maintain the TCAE required under DASR 21.A.77 in conformity with the continued airworthiness system; **AMC**

(b) Ensure that the TCAE or relevant procedures included by cross-reference are used as a basic working document within the organisation; **GM**

(c) determine that the design of products, or changes or repairs thereof that leverage prior certification, comply with applicable specifications and requirements and have no unsafe feature.

(d) provide to the Authority statements and associated documentation confirming suitability of prior certification as per paragraph (c), except for approval processes carried out in accordance with DASR 21.A.87 (c) or (d);

(e) Provide to the Authority data and information related to required actions under DASR 21.A.3B;

(f) (Reserved)

(g) (Reserved)

(h) Designate data and information issued under the authority of the approved military type-certificate holder organisation within the scope of its terms of approval as established by the Authority with the following statement: "*The technical content of this document is approved under the authority of the Military Type-Certificate Holder Organisation ref. AUS.DASA.21C.[XXXX]*" **GM**

AMC 21.A.88(a) – Administration of the Type Continued Airworthiness Exposition (TCAE)

1. The TCAE of the applicant must be in the language which will permit the best use of it by all personnel charged with the tasks performed for the purpose of the military type-certificate holder organisation.
2. The TCAE should be produced in a concise form with sufficient information to meet DASR.21.A.77 relevant to the scope of approval sought by the applicant. The TCAE must include the following:
   - Organisation name, address, and email addresses.
   - Document title, and company document reference No (if any).
   - Amendment or revision standard identification for the document.
   - Amendment or revision record sheet.
   - List of effective pages with revision/date/amendment identification for each page.
   - Contents list or index.
   - A distribution list for the TCAE.
   - An introduction, or foreword, explaining the purpose of the document for the guidance of the organisation's own personnel. Brief general information concerning the history and development of the organisation and, if appropriate, relationships with other organisations which may form part of a group or consortium, should be included to provide background information for the Authority.
   - The certificate of approval should be reproduced in the document.
   - Identification of the department responsible for administration of the TCAE.

NOTE: In the case of an initial or revised approval it is recognised that certificate will be issued after Authority agreement to the handbook content in draft form. Arrangements for formal publication in a timely manner should be agreed before the certificate of approval is issued.

3. An updating system should be clearly laid down for carrying out required amendments and modifications to the TCAE.
4. The TCAE may be completely or partially integrated into other organisation manuals, in this case, identification of the information required by DASR.21.A.77 should be provided by giving appropriate cross references, and these documents should be made available, on request, to the Authority.

GM 21.A.88(b) – Use of the Type Continued Airworthiness Exposition (TCAE)

1. The TCAE should be signed by the Accountable manager and the Senior Defence Engineer (SDE) of the military type-certificate holder organisation and declared as a binding instruction for all personnel charged with the continued airworthiness of the product.
2. All procedures referenced in the TCAE are considered as parts of the TCAE and therefore as basic working documents.

GM 21.A.88(h) – Designation of data and information issued under the authority of the military type-certificate holder organisation (MTCHO)

1. **INTENT -** This GM provides guidance for complying with the obligation of DASR.21.A.88(h), and addresses the various aspects that the military type-certificate holder organisation should cover in order to have a comprehensive procedure for the designation of data and information.

2. **SCOPE -** The term 'data and information' as used in DASR.21.A.88(h) also includes instructions.

Data and information referred to in DASR.21.A.88(h) are issued by a military type-certificate holder organisation and cover the following:

- embodiment instructions for design changes or repairs (usually in the form of a service bulletin, a modification bulletin, repair instructions or engineering order, etc.);
- manuals required by DASR 21 or the applicable airworthiness codes and standards (such as the aircraft flight manual (AFM), instructions for continued airworthiness (ICAs), etc.);
- (reserved);
- continued-airworthiness instructions (usually in the form of service bulletins) which may be covered by airworthiness directives (ADs);
- additional data to be defined by the military type-certificate holder organisation (eg alternative maintenance instructions that are not, per se, ICAs).

Note: This data and information may be issued in a digital or paper format.

The obligation does not apply to, and the statement provided with the data and information should not be used on, the following documents:

- certification documents (eg the certification programme, compliance checklist, etc.);
- compliance documents;
- design data transferred to production organisations; and
- production deviations (also referred to as 'unintended deviations' or 'concessions').

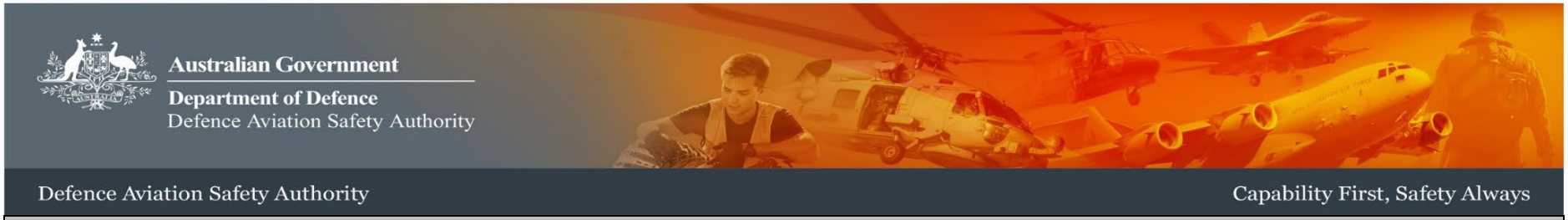
3. **RATIONALE** - The purpose of this obligation is to give certainty to the end users about the approval status of the data and information issued by the military type-certificate holder organisation.

4. **STATEMENT** - The statement provided with the data and information should also cover those items prepared by their supporting organisations that the military type-certificate holder organisation has declared as applicable to their products. The technical content of the statement is related to the type-certificate data and information.

The approval included in the statement means that:

- the type certificate data has been appropriately approved; and
- the information contains practical and well-defined installation or inspection methods, and, when those methods are implemented, the product is in conformity with the approved type-certificate data.

Note: Data and information related to the measures required by DASR 21.A.3B(b) (airworthiness directives (ADs)) are submitted to the Authority to ensure their compatibility with the content of an AD (see DASR.21.A.88(e)), and contain a statement that they are, or will be, subject to an AD issued by the Authority.



DASR AMENDMENT RECORD
DCP 2024-025 – Defence Registration of Balloons and Warbirds

RATIONALE FOR CHANGE

This amendment supports the Defence Registration of crewed hot air balloons and Warbird, Historic and Replica Aircraft. It incorporates the following changes:

- A new subclause (c) to DASR GR.15 *Airworthiness of Defence Registered Aircraft* introduces a provision for the operator of such aircraft to demonstrate airworthiness management that achieves a level of Aviation Safety at least equivalent to comparable Australian civil registered aircraft.
- New AMC to DASR GR.15(c) provides an acceptable airworthiness management approach for crewed hot air balloons.
- A new subclause 4 within DASR 21.A.174 (b) *Application* enables a balloon operator to apply to DASA for a Certificate of Airworthiness on the basis of an applicable civil type-certificate.
- An amendment to DASR GR.25 *Operation of State Aircraft* removes the requirement for aircraft to have a valid type-certificate to conduct operations. This requirement was redundant and was in conflict with extant (EMAR-based) provisions within DASR 21 that enable the issue of Certificates of Airworthiness for aircraft that do not have a type-certificate. The extant requirement at DASR GR.25(c) for aircraft to have a valid Certificate of Airworthiness and the exception clause for Military Permits to Fly at paragraph (d) provide sufficient regulatory controls.
- An amendment to the DASP Glossary definition of 'Warbird, Historic and Replica Aircraft' to remove reference to aircraft registration and instead align to the meaning of the term under the Civil Aviation Act 1988 (see Civil Aviation Order 104.0 *Certificates of approval application, grant and conditions*).

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DASR GR.15 *Airworthiness of Defence Registered Aircraft*

PREVIOUS TEXT

DASR GR.15 *Airworthiness of Defence Registered Aircraft*

(a) The design, production and certification of Defence Registered Aircraft must be managed in accordance with DASR 21 Aircraft Design, Production and Certification.

(b) The Continuing Airworthiness of Defence Registered Aircraft, and components thereof, must be managed in accordance with:

(1) DASR M Continuing Airworthiness Management

(2) DASR 145 Requirements for Maintenance Organisations

(3) DASR 66 Military Aircraft Maintenance Licencing

(4) DASR 147 Aircraft Maintenance Training Organisations.

AMENDED TEXT

DASR GR.15 *Airworthiness of Defence Registered Aircraft*

[No change to paragraphs (a) or (b)]

(c) By way of exception from DASR GR.15 (a) and (b), the operator of a Defence Registered aircraft in one of the following categories may demonstrate airworthiness management that achieves a level of Aviation Safety at least equivalent to comparable Australian civil registered aircraft:

(i) crewed hot air balloons used in balloon transport operations under Part 131 of the Civil Aviation Safety Regulations 1998 (CASR)

(ii) Warbird, Historic and Replica Aircraft operated under CASR Part 132.

AMC to DASR GR.15(c) *Airworthiness of Defence Registered Aircraft*

Compliance documentation

1. The MAO should demonstrate compliance with DASR GR.15(c) through an annex to the respective MAO Operations Compliance Statement (OCS).

Airworthiness Management of Crewed Hot Air Balloons

Introduction

2. This AMC identifies an approach to the airworthiness management of Defence Registered crewed hot air balloons through tailoring of applicable DASR parts. This approach meets or exceeds the level of Aviation Safety established by CASR 131 for balloon transport operations.
3. This AMC is intended for application to aircraft for which DASA will issue, or has issued, a Certificate of Airworthiness against a type-certificate issued by a recognised Civil Aviation Authority (CAA); ie where DASA has not issued a Military Type Certificate. Accordingly, all references to a CAA, type-certificate or type-certificate holder should be interpreted in the context of the relevant civil type-certificate.

Responsible personnel

4. The MAO Accountable Manager (MAO-AM) must nominate an Approved Person responsible for ensuring the airworthiness management of Defence Registered crewed hot air balloons operated by the MAO.
5. The Approved Person must be formally accepted by DASA through a DASR Form 4 *Acceptance of Nominated Management Personnel*. The Approved Person should have:
   (a) practical experience and expertise in the application of Australian civil aviation regulations as applicable to a civil balloon transport operator
   (b) practical experience and expertise in the application of applicable DASR
   (c) an appropriate understanding of the Airworthiness Review process and the requirements to conduct an Airworthiness Review
   (d) knowledge of:
      i. the airworthiness and maintenance requirements for the relevant aircraft operated by the MAO
      ii. the need for, and content of, the relevant parts of the MAOC OCS when applicable.

Recognition of other aviation authorities

6. The MAO may leverage the DASA recognition framework to accept Initial and Continuing Airworthiness products and services provided by, or under the approval of, a recognised aviation authority. Details of recognised authorities are available on the DASA recognition web site.

Initial Airworthiness

7. A MAO intending to operate a Defence Registered crewed hot air balloon for which a civil type-certificate is in force should apply to DASA for the issue of a Military Certificate of Airworthiness on the basis of that civil type-certificate under DASR 21.A.174(c)4.

Continuing Airworthiness

8. The operator of a Defence Registered crewed hot air balloon may ensure Continuing Airworthiness through tailored application of DASR M *Continuing Airworthiness Management* as follows:

   (a) **M.A.201 *Responsibilities*** is applicable in its entirety except for paragraph M.A.201(h). Maintenance organisations 'accepted by DASA' under M.A.201(g) should be understood to include organisations that hold a Certificate of Approval issued under Regulation 30 of the Civil Aviation Regulations 1988.

   (b) **M.A.301 *Continuing airworthiness tasks*** is applicable in its entirety, tailored as follows:

      i. paragraph M.A.301(a)4 is not applicable

      ii. for paragraph M.A.301(b)1, 'the requirements of DASR M' should be understood to mean the tailored requirements set out in this AMC.

   (c) **DASR M.A.302 *Aircraft Maintenance Programme (AMP)*** is not applicable; however, the MAO must use suitable maintenance publications and data approved by the relevant type-certificate holder or CAA.

   (d) **M.A.303 *Airworthiness Directives*** is applicable in its entirety. An 'applicable Airworthiness Directive' should be understood to include Airworthiness Directives and equivalent documents issued by the aviation authority that issued the relevant civil type-certificate.

   (e) **M.A.304 *Data for modifications and repairs*** is applicable in its entirety. 'An organisation accepted by the MAA', as referenced in paragraph M.A.304(d), should be understood to include any person or organisation appropriately approved by a recognised aviation authority.

(f) **M.A.305 Aircraft Continuing Airworthiness record system** is applicable in its entirety. A 'Certificate of Release to Service' is replaced by 'authorised release certificate'. An 'aircraft continuing airworthiness record system' is replaced by 'balloon log book'.

(g) **M.A.306 *Aircraft technical log*** is applicable in its entirety except for references to DASR M.A.305 *Aircraft Continuing Airworthiness record system*.

(h) **M.A.307 *Transfer of aircraft Continuing Airworthiness records*** is applicable in its entirety.

(i) **Subpart I *Military Airworthiness Review Certificate (MARC)***, comprising M.A.901 to M.A.905, is applicable in its entirety. References to the CAMO should be understood to mean the hot air balloon operator.

Tailored Airworthiness Review

9. **Purpose.** This section provides tailored Airworthiness Review requirements that should be read in conjunction with, and which take precedence over, Subpart I of DASR M.

10. **Authorised personnel.** The Approved Person must conduct the Airworthiness Review required for recommending the issue of a MARC. On completion of the Review, the Approved Person should complete DASR Form 15c *Military Airworthiness Review Certificate Record* and submit it to DASA.

11. **Review of Aircraft records.** A review of the aircraft records must be carried out to ensure that:

(a) aircraft flying hours, associated flight cycles, and any other airworthiness data have been properly recorded

(b) the Aircraft Flight Manual is applicable to the aircraft configuration and reflects the latest revision status

(c) all the maintenance due on the aircraft according to the maintenance requirements have been carried out

(d) any ongoing permissible unserviceabilities are managed

(e) all applicable Airworthiness Directives and equivalent requirements have been registered and appropriately incorporated

(f) all service-life-limited components installed on the aircraft are identified, tracked and have not exceeded the approved limit

(g) all maintenance has been released in accordance with applicable requirements

(h) the aircraft weight and balance reflects the current configuration of the aircraft and is valid

(i) the aircraft complies with the latest revision of the type-certificate associated with the Military Certificate of Airworthiness.

12. **Physical Survey.** A physical survey of the aircraft must be carried out to ensure that:

(a) all required markings and placards are properly installed

(b) the Aircraft configuration is in compliance with the Aircraft Flight Manual

(c) the Aircraft configuration is in compliance with the approved data

(d) no evident defect identified that is not reasonably expected

(e) no inconsistencies can be found between the Aircraft and Aircraft records.

DASR GR.25 *Operation of State Aircraft*

PREVIOUS TEXT

(a) The operation of State Aircraft by Defence must be in accordance with:

(1) DASR AO.Gen Air Operations – General

(2) DASR ARO *Authority Requirements for Air Operations*

(3) DASR ORO *Organisation Requirements for Air Operations*

(4) DASR NDR *Non-Defence Registered aircraft*

(5) DASR SPA *Specific Purpose Approval*

(6) DASR SPO *Special Purpose Operations*

(7) DASR UAS *Uncrewed Aircraft Systems*

(8) DASR FT *Flight Tests*

(9) DASR ACD *Air Cargo Delivery*

(10) DASR RoA *Rules of the Air.*

(b) Defence Registered Aircraft must have a valid type-certificate[1] to conduct operations. The type-certificate must be issued in accordance with DASR 21 Subpart B *Military Type-Certificates and Military Restricted Type-Certificates.*

Note 1: Including applicable restricted type-certificates issued in accordance with DASR 21 Subpart B

(c) Defence Registered Aircraft must have a valid certificate of airworthiness[2] to conduct operations. The certificate must be issued in accordance with DASR 21 Subpart H *Military Certificates of Airworthiness and Military Restricted Certificates of Airworthiness.*

Note 2: Including applicable restricted type certificates of airworthiness issued in accordance with DASR 21 Subpart H

(d) By way of exception from paragraph (b) and (c), an aircraft may be operated where a valid permit to fly has been issued. Any such permit to fly must be issued in accordance with DASR 21 Subpart P *Military Permit to Fly.*

(e) By way of exception from paragraph (b) and (c), UAS may be operated without a type-certificate or certificate of airworthiness, provided they are compliant with DASR UAS.10.

AMENDED TEXT

(a) [No change]

(b) Reserved.

(c) [No change]

(d) By way of exception from paragraph ~~(b) and~~ (c), an aircraft may be operated where a valid military permit to fly has been issued. Any such permit to fly must be issued in accordance with DASR 21 Subpart P *Military Permit to Fly.*

(e) By way of exception from paragraph ~~(b) and~~ (c), UAS may be operated without a type-certificate or certificate of airworthiness, provided they are compliant with DASR UAS.10.

DASR 21.A.174 *Application*

PREVIOUS TEXT

(a) Pursuant to DASR 21.A.172, an application for an airworthiness certificate shall be made in a form and manner established by the Authority of the State of registry.

(b) Each application for a certificate of airworthiness or restricted certificate of airworthiness shall include:

1. the class of airworthiness certificate applied for;
2. with regard to new aircraft:
   i. a statement of conformity:
      – issued under DASR 21.A.163(b); or
      – issued under DASR 21.A.130 and validated by the Authority; or
      – for an imported aircraft, any acceptable evidence to support that the aircraft conforms to a design approved by the Authority of the State of registry.
   ii. a weight and balance report with a loading schedule;
   iii. the flight manual and any other manuals required by the Authority of the State of registry.
3. with regard to used aircraft:
   i. originating from a State applying EASA / EMAR / DASR, a Military Airworthiness Review Certificate issued in accordance with EASA Part M / EMAR M / DASR M;
   ii. in any other case:
      – a statement by the Authority of the State where the aircraft is, or was, registered, reflecting the airworthiness status of the aircraft on its register at time of transfer;
      – a weight and balance report with a loading schedule;
      – the flight manual and any other manuals required by the Authority of the State of registry;
      – historical records to establish the production, modification, and maintenance standard of the aircraft, including all limitations associated with a restricted certificate of airworthiness;
      – a recommendation for the issuance of a certificate of airworthiness or restricted certificate of airworthiness and a Military Airworthiness Review Certificate following an airworthiness review in accordance with DASR M.

(c) Unless otherwise agreed, the statements referred to in subparagraphs (b)(2)(i) and (b)(3)(ii) shall be issued no more than 60 days before presentation of the aircraft to the aviation Authority of the State of registry.

AMENDED TEXT

(a) [No change]

(b) Each application for a certificate of airworthiness or restricted certificate of airworthiness shall include: [No change]

[No change to subparagraphs 1-3].

4. with regard to Defence Registered crewed hot air balloons:

i. a type-certificate or equivalent document issued by a recognised Civil Aviation Authority is in force for aircraft of that type

ii. the applicant has submitted to DASA the following documents:

– evidence that the Type design has been approved by the recognised CAA by issue of a Type certificate or equivalent document

– a copy of the applicable Type Certificate Data Sheet

– a copy of the Aircraft Flight Manual that contains all available options applicable to the Type and which was approved by the recognised CAA that issued the type-certificate

– a copy of the manufacturer's instructions for continuing airworthiness for the aircraft

– a copy of the parts catalogue for the aircraft

– a list of all current service documents applicable to the aircraft

iii. evidence of an agreement requiring the type-certificate holder to:

– continue to supply to the operator any service bulletins or instructions for the continuing airworthiness of aircraft of that type and any amendments to the documents identified in subparagraph (ii)

– continue to execute, in respect of the Defence aircraft, all applicable type-certificate holder functions related to failures, malfunctions, defects and other occurrences relevant to the airworthiness of the aircraft.

(c) [No change]

DASP Glossary
PREVIOUS TEXT
Warbird, Historic And Replica Aircraft (WHRA)*. A non–Defence registered aircraft that is an ex-armed forces (Warbird) aircraft, a historic aircraft or a replica aircraft.
AMENDED TEXT
Warbird, Historic and Replica Aircraft (WHRA)*. Within the Defence Aviation Safety Program, aircraft in the following categories that do not meet the airworthiness requirements for the issue of a certificate of airworthiness but which are nonetheless capable of safe flight are classified as Warbird, Historic and Replica Aircraft: (a) aircraft manufactured in accordance with the requirements of, and accepted for use by, an armed force (a 'warbird'); (b) an historic aircraft; or (c) a replica of a warbird or historic aircraft.

DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: AMC 66.A.20(b)2 - Privileges

RATIONALE FOR CHANGE

The last green text sentence of the AMC 'The experience may be recorded in a logbook, an e-RTE, PEX (AATR) or an 'A' Card' is prescriptive and is to be deleted. The proposed change does not change the intent of the AMC

CURRENT AMC TEXT

(Note only the last green text sentence of the AMC shown)

The experience may be recorded in a logbook, an e-RTE, PEX (AATR) or an 'A' Card

REVISED AMC TEXT

Delete the last green text sentence of the AMC.

DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: GM 66.A.30(a)1A(iii) Initial training (AUS)

RATIONALE FOR CHANGE

The second sentence of the green text contains DASR transition information, obsolete content and repeats the regulation. Therefore, the sentence is to be deleted.

CURRENT GM TEXT

Initial employment training delivered to trainees of all three Services provides the minimum practical training detailed in Appendix I to DASR 66. Therefore, maintenance personnel who have completed their initial employment training are eligible for a category A licence after six months of practical training, following completion of specific aircraft task training in accordance with DASR AMC 66.A.20(b), and have achieved syllabus Module 10 requirements, eg by completion of Trade Supervisors Principles course, CPL Sub 4, LS ATT or completed the Module 10 Make-up Training (PMKeyS Proficiency P124930).

The duration of practical training delivered by other Australian aviation maintenance training providers has not been assessed by the DASA. Applicants trained by other training providers will have to provide evidence of the duration of practical training they completed if a reduction in the 'on operating military aircraft' eligibility criteria is claimed.

REVISED GM TEXT

Initial employment training delivered to trainees of all three Services provides the minimum practical training detailed in Appendix I to DASR 66.

The duration of practical training delivered by other Australian aviation maintenance training providers has not been assessed by the DASA. Applicants trained by other training providers will have to provide evidence of the duration of practical training they completed if a reduction in the 'on operating military aircraft' eligibility criteria is claimed.

DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: GM 66.A.30(a)(5)(ii) Basic experience requirements (AUS)

RATIONALE FOR CHANGE

The GM repeats final line in AMC1 66.A.30(a)(5)(ii) Basic experience requirements (AUS) and therefore is redundant and is to be deleted.

CURRENT GM TEXT

Where necessary, the MAA will identify gaps in applicant's knowledge and/or experience and will provide the applicant with advice on how the applicant can resolve such gaps.

REVISED GM TEXT

Delete GM 66.A.30(a)(5)(ii) in toto.

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DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: AMC1 66.A.30(a)(5)(ii) Basic experience requirements (AUS)

RATIONALE FOR CHANGE

The regulation text refers to ‘MAA’ but paragraph 3 of AMC1 refers to the ‘Authority’. ‘Authority’ to be changed to ‘MAA’ to align with the regulation text.

CURRENT AMC TEXT

1. Military Tertiary Qualified (TQ) engineers are eligible for a category C licence 12 months after completing the relevant Service’s engineering officer initial employment training, completion of Type course(s) relevant to their qualification and category (AERO or ELECTR(E)) and role in the DASR 145 organisation. The phrase '6 months of observation of Base maintenance' means that the TQ engineer is to understudy and be mentored by C category licence holder(s) such that the engineer is competent to exercise the privileges of the C licence holder when they become eligible for it.

2. Contractor TQ engineers are eligible for a category C licence 12 months after completing the company’s induction training, completion of Type course(s) relevant to their position and no less that 6 months observation of Base maintenance.

3. Where necessary, the Authority will identify gaps in applicant’s knowledge and/or experience and will provide the applicant with advice on how the applicant can resolve such gaps.

REVISED AMC TEXT

1. Military Tertiary Qualified (TQ) engineers are eligible for a category C licence 12 months after completing the relevant Service’s engineering officer initial employment training, completion of Type course(s) relevant to their qualification and category (AERO or ELECTR(E)) and role in the DASR 145 organisation. The phrase '6 months of observation of Base maintenance' means that the TQ engineer is to understudy and be mentored by C category licence holder(s) such that the engineer is competent to exercise the privileges of the C licence holder when they become eligible for it.

2. Contractor TQ engineers are eligible for a category C licence 12 months after completing the company’s induction training, completion of Type course(s) relevant to their position and no less that 6 months observation of Base maintenance.

3. Where necessary, the MAA will identify gaps in applicant’s knowledge and/or experience and will provide the applicant with advice on how the applicant can resolve such gaps.

DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: GM 66.A.45(a) Certification Privileges (AUS)

RATIONALE FOR CHANGE

The regulation is a clear statement, the GM repeats DASR 145 content and is ambiguous in relation to support staff. GM to be deleted.

CURRENT GM TEXT

To clarify, '…entitled to exercise certification privileges on a specific aircraft type..' means entitled to issue a Certificate of Release to Service following on-aircraft maintenance.

REVISED GM TEXT

Delete GM 66.A.45(a) in toto.

DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: AMC 66.A.50(c) Limitations (AUS)

RATIONALE FOR CHANGE

This is not AMC for the broader safety community but AMC for the MAA, AMC is to be deleted.

CURRENT AMC TEXT

Conversion reports are to be complied by the MAA and they are to address the following:

1. The conversion report for licences or other qualifications into a MAML shall describe the scope of each type of qualification, including the associated national licence, if any, the associated privileges and include a copy of the relevant national regulations defining these.

2. The conversion report shall show for each type of qualification referred to in point (i):

a. to which MAML it will be converted; and

b. which limitations/extensions shall be added; and

c. the conditions to remove the limitations, specifying the Appendix I module/subjects on which examination is needed to remove the limitations and obtain a full MAML, or to include an additional (sub-) category. This shall include the modules defined in Appendix III not covered by the national qualification.

REVISED AMC TEXT

Delete AMC 66.A.50(c) in toto.

DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: GM 66.A.52 Extensions (AUS)

RATIONALE FOR CHANGE

GM appears to have been written for transition to DASR, content is ambiguous, confusing and unnecessary in current context of DASR. GM to be deleted.

CURRENT GM TEXT

1. An individual does not require a licence extension to perform or supervise cross-trade maintenance, but they have to be authorised by the DASR 145 maintenance organisation to perform and supervise that maintenance.

2. An individual issuing an aircraft Certificate of Release to Service (CRS) following cross-trade maintenance shall have a licence with appropriate extension(s) or exclusion(s) removed, if that maintenance is outside the scope of the individuals standard trade training. For example, an experienced ATECH/ECN41/ATA or equivalent will usually have a category B1 licence with electrical system maintenance exclusion. Such an individual would not be able to issue a CRS following line maintenance if that maintenance was on some part of the aircrafts electrical system.

3. Individuals carrying out error capturing activities (independent inspections) do not require a licence however, they have to be authorised by the DASR 145 maintenance organisation to carry out such activities.

REVISED GM TEXT

Delete GM 66.A.52 in toto.

DASR AMENDMENT RECORD
DCP 2024 - 016

DASR CLAUSE: AMC 66.A.52 Extensions

RATIONALE FOR CHANGE

Green text paragraphs a, b and c are not AMC for the broader safety community but AMC for the MAA. Green text paragraphs a, b and c are to be deleted.

The DASR black text does not align with EMAR black text 'In case of extended qualification resulting from additional modules or sub-modules, the MAML should incorporate the relevant extensions in accordance with EMAR 66.A.52 and EMAR 66.B.116.' IAW DASA policy for DASR to align with EMAR DASR to be amended to align with EMAR except for the reference to EMAR 66.B.116 as DASR does not use B regulations.

CURRENT AMC TEXT

In case of extended qualification resulting from additional modules or sub-modules, the MAML should incorporate the relevant extensions.

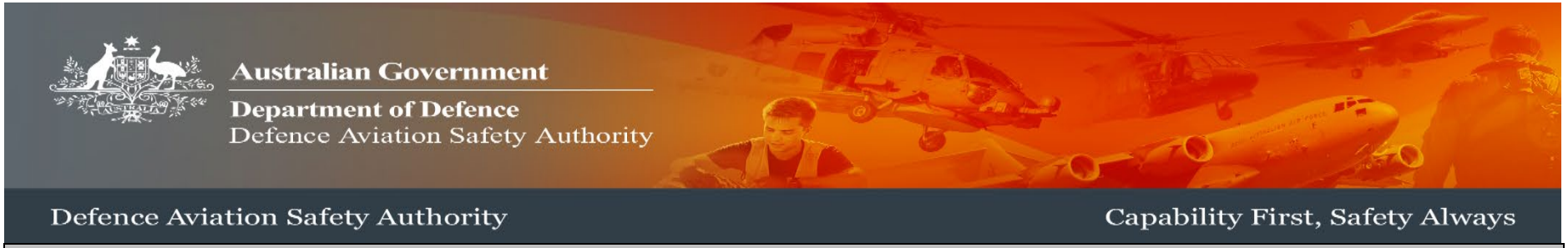
a. When granting an extension, the MAA shall ensure that the extension on a MAML results in a level of safety equal to that of the full MAML category. In particular, the MAA shall define and document which education and training is required for any extension.

b. On receipt of a satisfactory DASR Form 19 and any supporting documentation, the MAA shall endorse the extension by stamp and signature or reissue the licence.

c. The MAA record system shall be changed accordingly.

REVISED AMC TEXT

In case of extended qualification resulting from additional modules or sub-modules, the MAML should incorporate the relevant extensions in accordance with DASR 66.A.52.



DASR AMENDMENT RECORD
DCP 2024-032

DASR CLAUSE: 66.A20(a)2

RATIONALE FOR CHANGE

DASR 66.A.20 only allows a Category B1 MAML holder to issue CRS or act as Support Staff following work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting. Ambiguity exists regarding if a Category B1 MAML holder can issue a CRS or act as support staff following work on armament systems, especially Stores Management Systems, requiring troubleshooting.

New GM 66.A.20(a)2 – Troubleshooting (AUS) has been added to DASR to clarify that armament systems defined in GM 66.A.20(a) are not considered to be avionics systems.

CURRENT GM TEXT

N/A new GM to be added to DASR 66.A.20(a)2, 2nd dash point.

REVISED GM TEXT

New GM for DASR 66.A.20(a)2 for 2nd dash point.

GM 66.A.20(a)2 – Troubleshooting (AUS)

For troubleshooting, Armament systems defined in GM 66.A.20(a) Privileges are not considered avionics systems. Where troubleshooting extends to supplementary Avionics systems, an appropriate B2 MAML holder must issue certificates of release to service or act as B2 support staff.

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DASR AMENDMENT RECORD
DCP 2024-032

DASR CLAUSE: GM 66.A20(a)

RATIONALE FOR CHANGE

DASR 66.A.20 only allows a Category B1 MAML holder to issue CRS or act as Support Staff following work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting. Ambiguity exists regarding if a Category B1 MAML holder can issue a CRS or act as support staff following work on armament systems, especially Stores Management Systems, requiring troubleshooting.

GM 66.A.20(a) amended to add Stores Management Systems and associated components as another example of armament systems.

For consistency within the paragraph ‘Ejection” to be changed to ‘ejection’

Note this amendment record only shows current text for **Armament, rescue and escape systems and other military-specific systems**

Definition for Stores Management System (note) comes from MIL-STD-1760D

DASA MAML Exclusion, Inclusion & Endorsements Manual will be updated – Military Inclusion M4 will have S1000D system 39 - 70 (stores management) added and the current Note amended to "Only maintenance requiring simple tests to prove serviceability and not requiring troubleshooting IAW DASR 66.A.20 Privileges, excluding Armament systems IAW GM 66.A.20(a)(2)."

CURRENT GM TEXT

Armament, rescue and escape systems and other military-specific systems means systems associated with the carriage, targeting and release of weapons; reconnaissance and surveillance equipment; self-protection, electronic warfare and aircrew escape systems. Examples of armament, rescue and escape systems and other military-specific systems include the following:

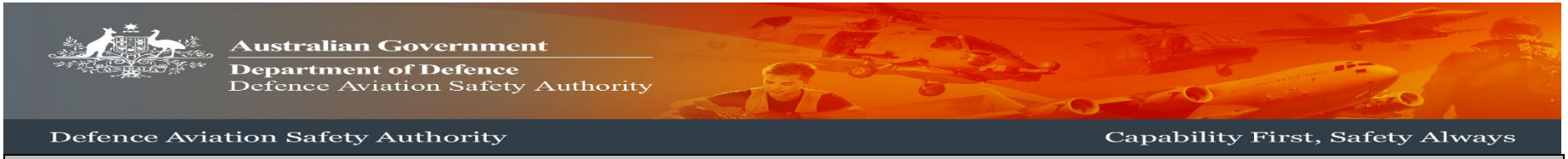
- weapon;
- weapons release/launch mechanisms;
- Ejection seats.

REVISED REGULATION TEXT

Armament, rescue and escape systems and other military-specific systems means systems associated with the carriage, targeting and release of weapons; reconnaissance and surveillance equipment; self-protection, electronic warfare and aircrew escape systems. Examples of armament, rescue and escape systems and other military-specific systems include the following:

- weapons;
- weapons release/launch mechanisms;
- ejection seats;
- stores management systems.

Note: Stores Management Systems are a subsystem that controls and monitors the operational state of aircraft installed stores and provides / manages the communications between aircraft stores and other aircraft subsystems.



DASR AMENDMENT RECORD
DCP 2024-015

DASR CLAUSE: AMC1 145.A.30(f)

RATIONALE FOR CHANGE

Change initiated by DARICC action 25.1 - DASA (DCA and DAVENG) to explore the regulatory position on ALTMoC with regards to DASR AMC 145.A.30(F). Intent of the change is to define a list of 'specialist' composite repairs and an acceptable standard to qualify personnel to perform 'specialist' composite repairs. For composite repairs that are not considered 'specialist' (all other composite repairs) a DASR 145 MO can define their own competency standard when authorising personnel to perform these composite repairs.

CURRENT REGULATION TEXT

For the performance of composite repairs, SAE AIR4938 is an accepted standard for qualifying personnel to carry out repairs.

REVISED REGULATION TEXT

1. For the purposes of 145.A.30(f), the following types of composite repairs are a specialised task, requiring personnel to be trained and qualified IAW officially recognised standards, for any repair involving:

- metal to metal bonds
- core replacement
- preimpregnate adhesive or foaming adhesive
- step cut
- scarf cut
- external or internal wet layup patch.

2. SAE AIR4938 is an officially recognised qualification standard for personnel who conduct composite specialised tasks.

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Defence Aviation Safety Authority

Defence Aviation Safety Authority

DASR AMENDMENT RECORD
DCP 2024 - 020

DASR CLAUSE: AMC SPA.55(a)4

RATIONALE FOR CHANGE

AMC SPA.55(a)4 para a.iii.(a) points to 'DASR AIRCREW.55' which does not exist (DASR AIRCREW.55 was replaced with DASR NTS).

DASA updated references to DASR Aircrew.55 to read DASR NTS.

CURRENT REGULATION TEXT

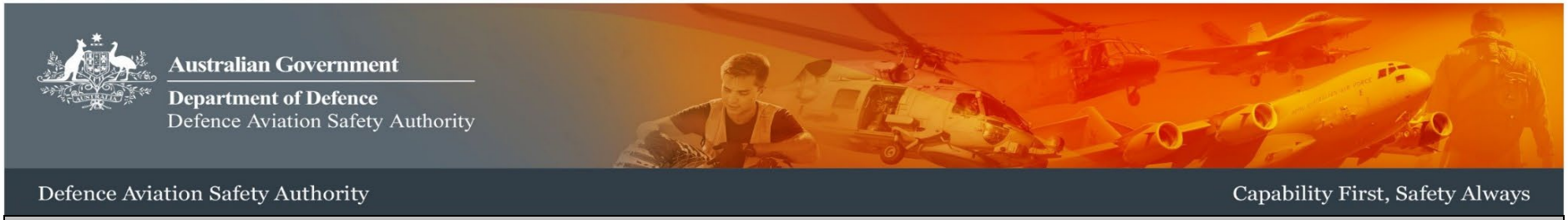
AMC SPA.55(a)4 para a.iii.(a)

training IAW DASR AIRCREW.55

REVISED REGULATION TEXT

AMC SPA.55(a)4 para a.iii.(a)

training IAW DASR NTS



DASR AMENDMENT RECORD
DCP 2024 - 037

DASR CLAUSE: AMC1 147.A.105(f)(1)(b)(i)

RATIONALE FOR CHANGE

AMC1 147.A.105(f)(1)(b)(i) references cancelled Air Command Standing Instruction (PERS) 33-40, therefore the reference has been removed from the AMC. Removal of the reference does not change the intent of the AMC.

CURRENT REGULATION TEXT

AMC1 147.A.105(f)(1)(b)(i)

i. **Military instructors.** The Services have policies which define the qualifications for ground training instructors and assessors. These policies, eg AC SI (PERS) 33-40, are an acceptable means of complying with the requirements of this clause.

REVISED REGULATION TEXT

i. **Military instructors.** The Services have policies which define the qualifications for ground training instructors and assessors. These policies are an acceptable means of complying with the requirements of this clause.

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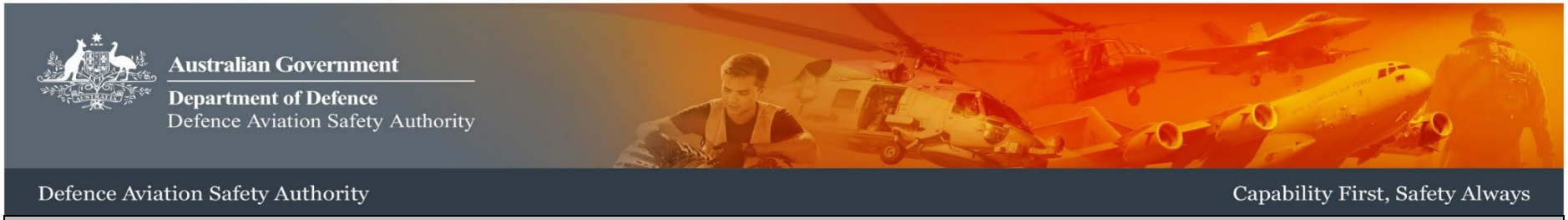

DASR AMENDMENT RECORD
DCP 2024 - 039

DASR CLAUSE: GM ANSP.80(b)a

RATIONALE FOR CHANGE

Change to ATC Licensing DoSA requirements to align with DASPMAN Vol 3 requirements (section 4.3.2).

CURRENT REGULATION TEXT

The ATC licence issued to a qualified individual by DASA must clearly state that compliance with ICAO training and competency standards has been achieved. DASA appoints the Officer Commanding No 44 Wing as a Delegate of the Safety Authority for the licensing of Air Traffic Controllers through the relevant licensing system.

REVISED REGULATION TEXT

The ATC licence DASA issues to a qualified individual must clearly state that compliance with ICAO training and competency standards has been achieved. DASA may appoint a Delegate of the Safety Authority (DoSA) for the licensing of Air Traffic Controllers through the approved licensing system. DASPMAN Vol 1 Chapter 3 includes provisions to allow the delegation of defined DASA functions to Defence staff and contractors, and DASPMAN Vol 3 Chapter 4 provides further guidance.

DASR AMENDMENT RECORD
DCP 2024 - 036

DASR CLAUSE: Acronyms and Glossary

RATIONALE FOR CHANGE

DASA added 'AMD - Authorised Maintenance Data' to the DASPMAN Acronym list and corrected the Glossary entry for clarity.

CURRENT REGULATION TEXT

[Glossary title] Authorised Maintenance Data *

REVISED REGULATION TEXT

[Glossary title] Authorised Maintenance Data (AMD) *

[add to Acronyms list] AMD - Authorised Maintenance Data

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DASR Amendment Record DCP 2024-033

PROPOSED CHANGES TO DASR M AMC and GM Green text

This attachment contains the changes identified by the DASR green text review that have been updated to include changes as a result of the responses to NPA 2024-03 DASR Part M Proposed Amendments and Deletions.

AMC M.A.202(c)
Rationale
Correct the Form 44 name
Current AMC Text
Form 44 – Technical Occurrence Report, as established by the MAA, or
Proposed AMC Text
Form 44 – Occurrence Report, as established by the MAA, or

AMC M.A.301(a)(1)
Rationale
DASR paragraph 3, third sentence is *'If a component of the pre-flight inspection is accomplished by the DASR 145 AMO, it should be incorporated into the AMP.'* is not in EMAR. The text was originally green text in the initial DASR release. Text is overly prescriptive and may lead to inefficiencies in the management of the AMP. The sentence is to be deleted.
Current AMC Text
If a component of the pre-flight inspection is accomplished by the DASR 145 AMO, it should be incorporated into the AMP.
Proposed AMC Text
The third sentence is to be deleted.

AMC M.A.706
Rationale
Para 4.10: Green text relocated from AMC M.A.706(d) – modified IAW feedback to NPA for DCP 2024-033 (shall be eligible for EngExec rather than requires EngExec).
Current AMC Text
4.10. Chartered Professional Engineer (CPEng), Chartered Engineering Technologist (CEngT) or Chartered Engineering Associate (CEngA) status with the Institute of Engineers Australia or an equivalent professional body recognised by the IEAust.
Proposed AMC Text
4.10. Chartered Professional Engineer (CPEng), Chartered Engineering Technologist (CEngT) or Chartered Engineering Associate (CEngA) status with the Institute of Engineers Australia or an equivalent professional body recognised by the IEAust. Additionally, the Continuing Airworthiness Manager (CAM) shall be eligible for Engineering Executive (EngExec) status with the Institute of Engineers Australia or an equivalent status recognised by the IEAust;

AMC M.A.706(d)

Rationale

Duplicates text in AMC M.A.706 so this text is to be removed from the AMC. The green text requiring the Continuing Airworthiness Manager (CAM) requires Engineering Executive (EngExec) status with the Institute of Engineers Australia or an equivalent professional body recognised by the IEAust is to be relocated to AMC M.A.706.

Current AMC Text

The Continuing Airworthiness Manager (CAM) and the nominated deputy require formal acceptance by the MAA which is granted through the corresponding DASR Form 4—Acceptance of Nominated Management Personnel.

The Continuing Airworthiness Manager (CAM) should have:

1. practical experience and expertise in the application of aviation safety standards and safe operating practices;
2. a comprehensive knowledge of:
    a. relevant parts of operational requirements and procedures;
    b. the MAOC holder's Operations Specifications when applicable;
    c. the need for, and content of, the relevant parts of the MAOC holder's Operations Manual when applicable;
3. knowledge of quality systems;
4. five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position;
5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education acceptable to the MAA. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components;
6. The above recommendation may be replaced by five years of experience additional to those already recommended by paragraph 4 above. These five years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks;
7. Chartered Professional Engineer (CPEng), Chartered Engineering Technologist (CEngT) or Chartered Engineering Associate (CEngA) status with the Institute of Engineers Australia (IEAust) or an equivalent professional body recognised by the IEAust. Additionally, the Continuing Airworthiness Manager (CAM) requires Engineering Executive (EngExec) status with the Institute of Engineers Australia or an equivalent professional body recognised by the IEAust;
8. thorough knowledge with the organisation's continuing airworthiness management exposition;
9. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to General Familiarisation and could be imparted by a DASR 147 organisation, by the manufacturer, or by any other organisation accepted by the MAA.

    "Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval
10. knowledge of maintenance methods;
11. knowledge of applicable regulations.

Proposed AMC Text

Delete AMC in toto.

AMC M.A.708(c) (paragraphs 4 - 6)

Rationale

Green Text paragraphs 4 thru 6 is overly prescriptive and adds no value in the context of regulation content. In the EMAR AMC paragraphs 4 thru 6 are not applicable, therefore current green text paragraphs are to be deleted and replaced with 'NOT APPLICABLE, to align with EMAR and maintain paragraph numbering.

Current AMC Text

4 For line maintenance, the actual layout of the line maintenance contract/tasking the IATA Standard Ground Handling Agreement may be used as a basis, but this does not preclude the MAA from ensuring that the content of the contract/tasking is acceptable to them, and especially that the contract/tasking allows the CAMO to properly exercise its maintenance responsibility. Those parts of a contract/tasking that have no bearing on the technical or operational aspects of airworthiness are outside the scope of this paragraph.

5 It is possible to contract/task another Operating Organisation that is not directly approved under DASR 145. In this case the CAMO's continuing airworthiness management exposition should include appropriate procedures to ensure that all this contracted/tasked maintenance is ultimately performed on time by organisations approved under DASR 145 in accordance with the contract/tasking CAMO's data. In particular the quality system procedures should place great emphasis on monitoring compliance with the above. The list of DASR 145 approved contract/tasking, or a reference to this list, should be included in the CAMO's continuing airworthiness management exposition.

6. Such a maintenance arrangement does not absolve the Operating Organisation from its overall continuing airworthiness responsibility unless exception clause DASR M.A.201(k) is enacted. Specifically, in order to accept the maintenance arrangement, the MAA should be satisfied that such an arrangement allows the Operating Organisation to ensure full compliance with responsibilities pursuant to DASR M.A.201—Responsibilities.

Proposed AMC Text

4. NOT APPLICABLE.

5. NOT APPLICABLE.

6. NOT APPLICABLE.

AMC M.A.710(a)(1)

Rationale

Delete AMC as it repeats the intent of the regulation

Current AMC Text

Determine whether the information about the utilisation of the aircraft has been recorded properly. The records should be examined to the extent necessary to determine if the information is up to date and accurate.

Proposed AMC Text

Delete AMC in toto.

AMC M.A.710(a)(3)
Rationale
The AMC repeats the intent of the regulation and is overly prescriptive. AMC to be amended by deleting paragraphs 1, 2, 6 and heading ERROR Capturing Methods. Paragraphs 3, 4, 5 and 7 to be amended and renumbered to 1, 2, 3 and 4.
Current AMC Text

1. Examine the records of compliance with the maintenance program to determine whether each maintenance task due to be carried out in accordance with the aircraft's maintenance program has been carried out and properly certified.

2. If the record of compliance with the maintenance program is kept in a computerised system, then a report generated by the computerised system may be used to comply with this requirement; provided the report clearly shows when the maintenance was last carried out, when it is next due and highlight any overdue task. The airworthiness review staff carrying out the review should ensure that such computer-generated reports include all maintenance tasks required to be carried out under the aircraft's maintenance program.

3. In addition to the examination of records kept the following actions should also be undertaken:

    a. For each maintenance task that is mandatory under the aircraft's type design approval (such as airworthiness limitation and certification maintenance requirements if available for type of fleet), documents that substantiate that the maintenance has been carried out should be examined to verify that information kept for these tasks are correct;

    b. For all other maintenance tasks that are not mandatory under the aircraft's type design approval, a sample of maintenance tasks should be selected and the documents that substantiate that the maintenance has been carried out should be examined to verify that information kept for these tasks is correct.

4. The sample should include a range of maintenance tasks carried out at various intervals. The sample size should be at least 5% (per cent) of the total number of maintenance tasks carried out or 50 maintenance tasks, whichever is lower. If discrepancies are found during the sample check, further investigation should be carried out to the extent necessary to determine the level of inaccuracy in the records kept. Each time a review is carried out, a different set of samples should be selected to ensure over time a wide range of maintenance tasks are checked.

5. Examples of documents that may substantiate maintenance has been carried out include:

    a. maintenance records for maintenance carried out on the aircraft;

    b. copies of authorised release certificates for product, parts or appliances;

    c. log books for products such as engines and propellers; and

    d. log cards for landing gear

6. For product, parts or appliances, the document that substantiates that the maintenance has been carried out on the product, parts or appliances should relate to the product that is identified in the records kept by part number and serial number if applicable.

ERROR CAPTURING METHODS

7. Select a sample of critical maintenance tasks that have been carried out on the aircraft and examine the aircraft's continuing airworthiness records to determine whether error capturing methods have been recorded on each of these maintenance tasks. The samples should relate to critical maintenance tasks carried out on the aircraft in the past 12 months. As a minimum, 5 instances of critical maintenance tasks should be selected as the sample size. However if the extent of critical maintenance tasks carried out on the aircraft in the past 12 months is not sufficient for 5 samples then all the instances of critical maintenance tasks that have been carried out should be included in the review.

Proposed AMC Text

1. The following actions should be undertaken:

    a. For each maintenance task that is mandatory under the aircraft's type design approval (such as airworthiness limitation and certification maintenance requirements if available for type of fleet), documents that substantiate that the maintenance has been carried out should be examined to verify that information kept for these tasks are correct;

    b. For all other maintenance tasks that are not mandatory under the aircraft's type design approval, a sample of maintenance tasks should be selected and the documents that substantiate that the maintenance has been carried out should be examined to verify that information kept for these tasks is correct.

2. The sample should include a range of maintenance tasks carried out at various intervals. The sample size should be at least 5% (per cent) of the total number of maintenance tasks carried out or 50 maintenance tasks, whichever is lower. If discrepancies are found during the sample check, further investigation should be carried out to the extent necessary to determine the level of inaccuracy in the records kept. Each time a review is carried out, a different set of samples should be selected to ensure over time a wide range of maintenance tasks are checked.

3. Examples of documents that may substantiate maintenance has been carried out include:

    a. maintenance records for maintenance carried out on the aircraft;

    b. copies of authorised release certificates for product, parts or appliances;

    c. log books for products such as engines and propellers; and

    d. log cards for landing gear

4. Select a sample of critical maintenance tasks that have been carried out on the aircraft and examine the aircraft's continuing airworthiness records to determine whether error capturing methods have been recorded on each of these maintenance tasks. The samples should relate to critical maintenance tasks carried out on the aircraft in the past 12 months. As a minimum, 5 instances of critical maintenance tasks should be selected as the sample size. However if the extent of critical maintenance tasks carried out on the aircraft in the past 12 months is not sufficient for 5 samples then all the instances of critical maintenance tasks that have been carried out should be included in the review.

AMC M.A.710(a)(4)

Rationale

The AMC repeats the intent of the regulation but useful educational materiel, so the content will be moved to DASPMAN Vol 3

Current AMC Text

RECTIFICATION OF DEFECTS

Examine the aircraft's continuing airworthiness record system to determine whether there is any defect in the aircraft that needs rectification before flight. Defects that require rectification before flight should be rectified before the issue of an airworthiness review certificate.

DEFERRED DEFECTS

Examine the existing deferred defects as recorded in the aircraft's continuing airworthiness record system to determine whether deferral of rectification has been done.

Proposed AMC Text

AMC to be deleted in toto.

AMC M.A.710(a)(5)

Rationale

Repeats the intent of the regulation but useful educational materiel – to be moved to DASPMAN Vol 3

Current AMC Text

1. Examine the records containing compliance with Airworthiness Directives (AD) to determine whether actions required by each AD that applies to the aircraft, product, parts or appliances fitted to the aircraft have been complied with. An examination of documents that substantiate each AD has been complied with should be carried out to verify that information kept is correct. Examples of documents that may substantiate an AD has been complied with, includes:

a. maintenance records for maintenance carried out on the aircraft;

b. copies of authorised release certificates for product, parts or appliances; and

c. log books for products such as engines and propellers.

2. For a product, parts or appliances, the document that substantiates that the AD has been complied with in relation to the product, parts or appliances should relate to the product that is identified in the records by part number and serial number if applicable.

3. Where an AD requires compliance with requirements contained in another document such as a service bulletin (SB), a record of compliance with the service bulletin would be acceptable as evidence of compliance with the AD.

Proposed AMC Text

AMC to be deleted in toto.

AMC M.A.710(a)(6)

Rationale

Repeats content from M.A.304 but useful educational materiel - to be moved to DASPMAN Vol 3.

Current AMC Text

Examine the records of modifications kept to determine whether there is a DASR 21 (see DASR M.A.304—Data for modifications and repairs) approval for each design of the modification. For the purpose of this paragraph, a modification includes a repair that involves change to the approved design of the aircraft.

Proposed AMC Text

AMC to be deleted in toto.

AMC M.A.710(a)(7)

Rationale

Repeats the intent of the regulation but useful educational materiel - to be moved to DASPMAN Vol 3

Current AMC Text

1. Examine the records of life-limited components kept to determine whether part number, serial number, has correctly identified each life-limited part and whether the life limit has been exceeded for any of the parts.

2. In addition, documents that have been used to substantiate remaining life at installation should be checked to verify that information kept for life-limited components is correct. Examples of such substantiating documents include:

a. maintenance records for installation of the parts;

b. authorised release certificates for the parts; and

c. life limited component history/log card.

Proposed AMC Text

AMC to be deleted in toto.

AMC M.A.710(a)(9)

Rationale

The regulation is a clear statement and the current green text is not AMC. The green text has useful information and will be moved to DASPMAN Vol 3.

Current AMC Text

Examine the record of the aircraft's weight and balance kept to determine if it is consistent with all the changes made to the weight and balance since the last weighing of the aircraft. All changes made to the weight and balance should be substantiated by documents such as a modification approval and an equipment list for the aircraft.

Proposed AMC Text

AMC to be deleted in toto.

AMC M.A.710(a)(10)
Rationale
Repeats the intent of the regulation but useful educational materiel - to be moved to DASPMAN Vol 3
Current AMC Text
Examine the aircraft's continuing airworthiness records to determine whether the aircraft's configuration as recorded complies with the specification mentioned in military type certificate data sheet (TCDS) for the aircraft, engine and propeller. Any variation of configuration from MTC should be supported by a DASR 21 approval.
Proposed AMC Text
AMC to be deleted in toto.

AMC M.A.713(a)
Rationale
The first sentence is based on EASA AMC M.A.713 and was included in the initial DASR release, it is N/A in EMAR as the content is in EMAR AMC M.B.706 Changes. Second sentence was added as per DCP 2018-050 and maintains consistency with DASR AMC 145.A.85(a) to use a DASR Form 2 Deleting the first paragraph to maintain alignment with EMAR as the regulation clause is a clear statement, and keep the current 2nd paragraph as it provides a link DASR Form 2.
Current AMC Text
1 This paragraph covers scheduled changes to the continuing airworthiness organisations (CAMO) approval. The primary purpose of this paragraph is to enable the CAMO to remain approved if agreed by the MAA during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases. 2 All changes referred to in DASR M.A.713(a), should be notified to the MAA on the same form and in the same manner used for application, see DASR AMC M.A.702(a).
Proposed AMC Text
1 All changes referred to in DASR M.A.713(a) should be notified to the MAA on the same form and in the same manner used for application. See DASR AMC M.A.702(a).

GM M.A.301(a)(3)

Rationale

GM is related to the management of an AMP IAW M.A.302(d) and M.A.708(b)(4) – to be moved to DASPMAN Vol 3

Current GM Text

1. The situation may arise where a contracted/tasked maintenance organisation advises the CAMO that the contracted/tasked maintenance cannot be carried out by the required contracted/tasked timeframe and seeks a one-off extension of the promulgated maintenance interval. In processing the request for a maintenance interval extension the CAMO has the following options available:

   a. where the packaged/promulgated interval is less than the engineering justified interval, extend the interval up to a maximum of the engineering interval;

   b. extend the task interval using the CAMO's indirect approval procedure, if suitably privileged, either once-off or permanently,

   c. request DASR 21J design support for the requested interval extension; or

   d. utilise the Command Clearance process to operate the aircraft IAW DASR M.A.301(a)(2)

2. **Extending the Packaged Interval**. Interval flexibility may exist between a maintenance task's packaged/promulgated interval and its engineering/design interval in the AMP. The task may be packaged at a lesser interval maintenance efficiency due to tasks required in the same area or aligning maintenance to be conducted in blocks. If this is the case, and provided the CAMO has the underlying analysis that identifies the engineering interval and the reasons why the task was packaged at a lesser interval, the CAMO may authorise an extension to the packaged interval up to a maximum of the recorded engineering interval.

3. **Extend the AMP Task Interval**. If the AMP task interval has been reached, the CAMO may have sufficient data to extend the AMP task interval either once off, for a defined period, or permanently. To amend the AMP the CAMO must have the privilege from the MAA and sufficient scope as agreed in the indirect approval procedure. Note: where a task's interval has been extended permanently, the task may still be packaged as desired (not exceeding the extended interval).

4. **Request DASR 21J Design Support.** If the two options at para 1a and b above are not applicable, the CAMO may request DASR 21J design support to either extend the interval once off, for a defined period, or permanently.

5. **Utilise the Command Clearance process**. DASR M.A.301(a)(2).contains provisions for the Operating Organisation to deviate from the Initial/Continued/Continuing regulations.

6. For servicings with multiple tasks, the decision on extending the interval and the method used will be dependent on the individual circumstances of each task within the servicing. A combination of para 1a to d may be necessary.

7. It is important to note that extending a maintenance task beyond its promulgated interval may reduce the preventive effect of the task by increasing the risk of exposure to the failure consequences of the failure mode being addressed. In certain situations extension of maintenance could adversely affect the operational capability and/or safety of the aircraft. Also, the percentage by which the interval is extended does not universally reflect the increase in risk in exposure to the failure consequences of the failure mode(s) the task is addressing. The increase in risk with the extension of a task's interval needs to be assessed individually based on the underlying Reliability Centred Maintenance (RCM) analysis that justified the existing interval and the context in which the interval extension is being asked.

Proposed GM Text

GM to be deleted in toto.

GM M.A.301(a)(8)
Rationale
GM repeats the glossary definition for maintenance check flights and is not required
Current GM Text
Conducting 'maintenance check flights when necessary' means conducting maintenance check flights when required by Instructions for Continuing Airworthiness (ICA), however ICA may use different terminology. Note, there may be other check flights conducted in service that are not required by ICA; these flights are not a regulatory requirement. Maintenance check flight is not to be confused with flight test which is covered under DASR 21.
Proposed GM Text
GM to be deleted in toto.

GM M.A.305(h)
Rationale
This is the same GM as M.A.305(h), M.A.306(c), M.A.707(e), M.A.712(c), M.A.714, 145.A.35(j), 145.A.55(c) and 145.55(c)(3). Not regulatory materiel - to be moved to DASPMAN Vol 3.
Current GM Text
Other legislative requirements, overriding DASR, may require an organisation to keep records for a longer period of time.
Proposed GM Text
GM to be deleted in toto.

GM M.A.306(c)
Rationale
This is the same GM as M.A.305(h), M.A.306(c), M.A.707(e), M.A.712(c), M.A.714, 145.A.35(j), 145.A.55(c) and 145.55(c)(3). Not regulatory materiel - to be moved to DASPMAN Vol 3.
Current GM Text
Other legislative requirements, overriding DASR, may require an organisation to keep records for a longer period of time.
Proposed GM Text
GM to be deleted in toto.

GM M.A.707(e)
Rationale
This is the same GM as M.A.305(h), M.A.306(c), M.A.707(e), M.A.712(c), M.A.714, 145.A.35(j), 145.A.55(c) and 145.55(c)(3). Not regulatory materiel - to be moved to DASPMAN Vol 3.
Current GM Text
Other legislative requirements, overriding DASR, may require an organisation to keep records for a longer period of time
Proposed GM Text
GM to be deleted in toto.

GM M.A.708(b)(2)
Rationale
GM is largely EMAR content – editorial change to heading
Current GM Heading
GM M.A.708(b)(2) - Continuing management (AUS)
Proposed GM Heading
GM M.A.708(b)(2) - Continuing Airworthiness management.

GM M.A.708(b)(2)(ii)
Rationale
GM is not value adding and potentially confuses AMP and CAME indirect approvals – to be deleted.
Current GM Text
Consistent with DASR M.A.704(c) the indirect approval procedure shall define the eligible amendments,(ie scope of changes) to the AMP, be established by the CAMO as part of the CAME and be approved by the MAA
Proposed GM Text
GM to be deleted in toto.

GM M.A.708(b)(4)

Rationale

Same as GM M.A.301(a)(3) – to be moved to DASPMAN Vol 3

Current GM Text

1. The situation may arise where a contracted/tasked maintenance organisation advises the CAMO that the contracted/tasked maintenance cannot be carried out by the required contracted/tasked timeframe and seeks a one-off extension of the promulgated maintenance interval. In processing the request for a maintenance interval extension the CAMO has the following options available:

    a. where the packaged/promulgated interval is less than the engineering justified interval, extend the interval up to a maximum of the engineering interval;

    b. extend the task interval using the CAMO's indirect approval procedure, if suitably privileged, either once-off or permanently,

    c. request DASR 21J design support for the requested interval extension; or

    d. utilise the Command Clearance process to operate the aircraft IAW DASR M.A.301(a)(2)

2. **Extending the Packaged Interval**. Interval flexibility may exist between a maintenance task's packaged/promulgated interval and its engineering/design interval in the AMP. The task may be packaged at a lesser interval maintenance efficiency due to tasks required in the same area or aligning maintenance to be conducted in blocks. If this is the case, and provided the CAMO has the underlying analysis that identifies the engineering interval and the reasons why the task was packaged at a lesser interval, the CAMO may authorise an extension to the packaged interval up to a maximum of the recorded engineering interval.

3. **Extend the AMP Task Interval**. If the AMP task interval has been reached, the CAMO may have sufficient data to extend the AMP task interval either once off, for a defined period, or permanently. To amend the AMP the CAMO must have the privilege from the MAA and sufficient scope as agreed in the indirect approval procedure. Note: where a task's interval has been extended permanently, the task may still be packaged as desired (not exceeding the extended interval).

4. **Request DASR 21J Design Support**. If the two options at para 1a and b above are not applicable, the CAMO may request DASR 21J design support to either extend the interval once off, for a defined period, or permanently.

5. **Utilise the Command Clearance process**. DASR M.A.301(a)(2).contains provisions for the Operating Organisation to deviate from the Initial/Continued/Continuing regulations.

6. For servicings with multiple tasks, the decision on extending the interval and the method used will be dependent on the individual circumstances of each task within the servicing. A combination of para 1a to d may be necessary.

7. It is important to note that extending a maintenance task beyond its promulgated interval may reduce the preventive effect of the task by increasing the risk of exposure to the failure consequences of the failure mode being addressed. In certain situations extension of maintenance could adversely affect the operational capability and/or safety of the aircraft. Also, the percentage by which the interval is extended does not universally reflect the increase in risk in exposure to the failure consequences of the failure mode(s) the task is addressing. The increase in risk with the extension of a task's interval needs to be assessed individually based on the underlying Reliability Centred Maintenance (RCM) analysis that justified the existing interval and the context in which the interval extension is being asked.

Proposed GM Text

GM to be deleted in toto.

GM M.A.710(a)

Rationale

The first sentence repeats the intent of the regulation and can be deleted. The remainder to be moved to DASPMAN Vol 3.

Current GM Text

The airworthiness review staff of the CAMO are required to examine the continuing airworthiness records for the aircraft to determine whether continuing airworthiness requirements are being met for the aircraft.

For many aircraft, the quantity of records that must be examined and the level of examination required will be extensive. It is anticipated that the airworthiness review staff will be assisted by other employees of the CAMO and/or appropriately experienced personnel in this regard. This does not prevent other personnel from assisting to retrieve records, compile information and prepare reports etc. for the examination by the airworthiness review staff. However, it is up to the airworthiness review staff carrying out the airworthiness review to be satisfied with the source, authenticity and accuracy of the information made available to them.

The airworthiness review staff are expected to have a level of understanding of the continuing airworthiness records system for the aircraft that allows them to carry out the review without error.

Proposed GM Text

GM to be deleted in toto.

GM M.A.710(e)

Rationale

The regulation clause is a simple statement with sub clauses about when a MARC can be issued. The GM is not in EMAR or EASA M regulations. It provides information about the airworthiness review and was probably included in the early releases of DASR as there was no a lot of information on how to conduct the review – Keep first sentence remainder to be moved to DASPMAN Vol 3.

Current GM Text

A DASR Form 15b—Military Airworthiness Review Certificate, must be used when a CAMO has a privilege to issue a MARC. DASR Form 15a—Military Airworthiness Review Certificate - Issue Recommendation, is to be used when a CAMO does not have a privilege and the MAA issues the MARC. In the case of not having the privilege, the CAMO can subcontract/task another CAMO that has approved scope to conduct MARCs, but by definition cannot issue the MARC for the contracting/tasking CAMO.

During airworthiness review of an aircraft, the airworthiness review staff must examine continuing airworthiness records for the aircraft and perform a physical survey of the aircraft to determine whether the aircraft continues to comply with the airworthiness requirements as set out in DASR M.A.710(a) and DASR M.A710(b).

All findings discovered during an airworthiness review should be documented and managed in accordance with the CAMO's quality management system / safety management system, consistent with requirements of M.A.905.

Proposed GM Text

A DASR Form 15b—Military Airworthiness Review Certificate, must be used when a CAMO has a privilege to issue a MARC. DASR Form 15a—Military Airworthiness Review Certificate - Issue Recommendation, is to be used when a CAMO does not have a privilege and the MAA issues the MARC.

GM M.A.711(a)(3)

Rationale

GM repeats the intent of both M.A.711(a)(3) and M.A.201(k) and can be deleted.

Current GM Text

GM M.A.711(a)(3) - Privileges of the organisation (AUS)

DASR M.A.711(a)(3)(i) contains provisions to contract/task an organisation to perform continuing airworthiness management tasks on behalf of the CAMO. The contracted/tasked organisation is considered to perform the continuing airworthiness management tasks as an integral part of the Operating Organisation's continuing airworthiness management system hence is required to work under the quality system of the CAMO. DASR M.A.711(a)(3)(ii) contains provisions for continuing airworthiness management tasks to be contracted/tasked to an organisation working under their own DASR M.A Subpart G approval. In this situation the contracted/tasked CAMO is not required to work under the quality system of the contracting/tasking CAMO. In either case, the contracting/tasking CAMO retains the responsibility for all CAMO functions irrespective of who is undertaking them. DASR M.A.201(k) contains provisions for the Operating Organisation to contract/task a DASR M.A. Subpart G approved organisation for the management of the continuing airworthiness of the aircraft it operates. In this case the contracted/tasked CAMO assumes the responsibility for all CAMO functions.

Proposed GM Text

GM to be deleted in toto.

GM M.A.712(c)

Rationale

This is the same GM as M.A.306(c), M.A.707(e), M.A.712(c), M.A.714, 145.A.35(j), 145.A.55(c) and 145.55(c)(3). Not regulatory materiel - to be moved to DASPMAN Vol 3.

Current GM Text

Other legislative requirements, overriding DASR, may require an organisation to keep records for a longer period of time.

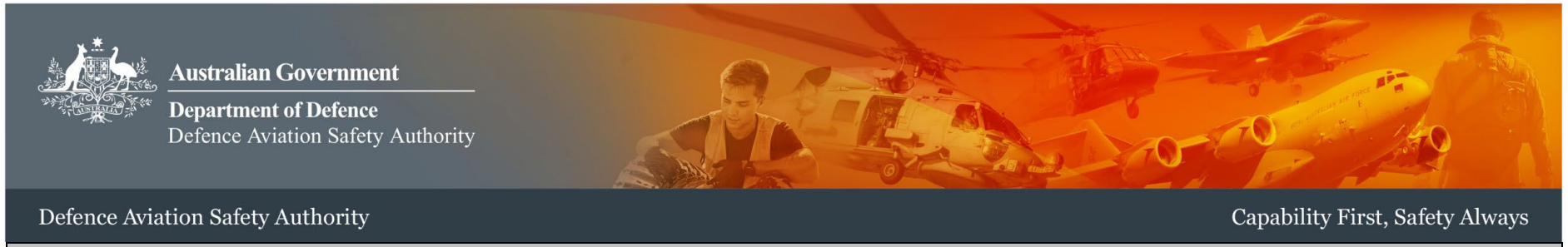
Proposed GM Text

GM to be deleted in toto.

GM M.A.713(a)(6)
Rationale
Regulation is a clear and simple clause. The GM does not add value and is to be deleted.
Current GM Text
This includes organisations providing CAM services on behalf of the CAMO.
Proposed GM Text
GM to be deleted in toto.

GM M.A.713(a)(7)
Rationale
The regulation clause clearly states 'any change that affects the approval certificate'. The green text adds no value and is to be deleted.
Current GM Text
Changes that affect the Approval Certificate may include: 1. a change to the aircraft type and/or model, or 2. A change to the continuing airworthiness services provided.
Proposed GM Text
GM to be deleted in toto.

GM M.A.714
Rationale
This is the same GM as M.A.306(c), M.A.707(e), M.A.712(c), M.A.714, 145.A.35(j), 145.A.55(c) and 145.55(c)(3). Not regulatory materiel - to be moved to DASPMAN Vol 3.
Current GM Text
Other legislative requirements, overriding DASR, may require an organisation to keep records for a longer period of time.
Proposed GM Text
GM to be deleted in toto.



DASR AMENDMENT RECORD
DCP 2024 - 029

DASR CLAUSE: GM MED.10.A

RATIONALE FOR CHANGE

GM MED.10.A use of 'Defence civilian' was inconsistent with the Defence Force Discipline Act 1982 definition.

CURRENT REGULATION TEXT

4. **CASA medical certificates.** Defence use of an appropriate CASA issued medical certificate is recognised as acceptable for Defence civilians who may provide Air Traffic Control services or civil pilots contracted to operate Defence aircraft, such as training flights, on condition that the CASA medical certificate supports only those duties directly related to the flying related duties the certificate was issued for.

5. CASA medical certificates issued to Reserve members may not be used to support any deployed operations, either within or outside of Australia. In such cases, a Defence medical is required as Defence has special needs that are not covered under CASA requirements. Detailed advice may be sought from the relevant SSAMA. Reserve Air Traffic Controllers performing flying related duties at an airbase are not deemed as deployed.

REVISED REGULATION TEXT

4. **CASA medical certificates.** Defence use of an appropriate CASA-issued medical certificate is acceptable IAW the following:
   a. Reserve members and civilians (eg Defence Australian Public Servants, contractors) who provide Air Traffic Control services
   b. Civilians who pilot Defence Aircraft
   c. only for those flying related duties for which the certificate was issued
   d. only in non-deployed operations.

5. Reserve members and civilians (eg Defence Australian Public Servants, contractors) may not use a CASA-issued medical certificate to support deployed operations, either within or outside of Australia. In such cases, a Defence medical is required as Defence has needs specific to the deployed environment that are not covered under CASA requirements. Detailed advice should be sought from the relevant SSAMA, noting Air Traffic Controllers performing flying related duties at an airbase, within Australia, may not be deemed to be deployed.

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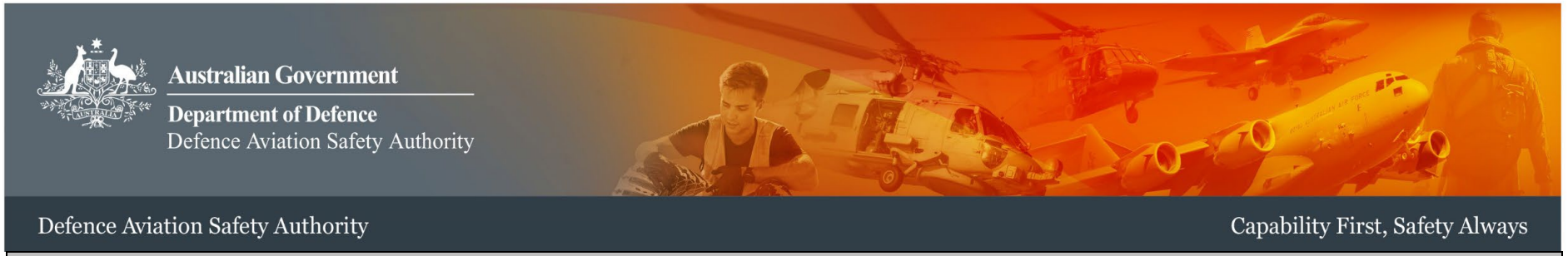

DASR AMENDMENT RECORD
DCP 2024 - 021

DASR CLAUSE: AMC NDR.05.A para 10.d

RATIONALE FOR CHANGE

The Australian Ballooning Federation (ABF) is no longer a CASA approved Recreational Aviation Administration Organisation (RAAO).

CURRENT REGULATION TEXT

d. Australian Ballooning Federation (ABF). The ABF administers recreational ballooning, to standards accepted by CASA. Recreational ballooning refers to those pilots who hold a private ABF issued balloon certificate and who don't carry fare-paying passengers. In addition to regulatory requirements, the ABF publishes information to keep its members informed of safety standards.

REVISED REGULATION TEXT

[Remove para 10.d in toto]

DASR CLAUSE: AMC NDR.05.B para 26 & 27
RATIONALE FOR CHANGE
The Australian Ballooning Federation (ABF) is no longer a CASA approved Recreational Aviation Administration Organisation (RAAO).
CURRENT REGULATION TEXT
26. Ballooning may only be conducted under oversight of the Australian Ballooning Federation (ABF) RAAO, supplemented by any additional Sponsor requirements. 27. RAAF Balloons may also be subject to increased DASP oversight as directed by the Defence AA.
REVISED REGULATION TEXT
26. Ballooning may only be conducted under oversight of DASA or a suitability recognised Aviation Authority, supplemented by any additional Sponsor requirements. [Remove para 27 in toto]

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DASR SPA.30 FOR FEB 25 DASR RELEASE

‘AIR DISPLAYS’

Contents

SECTION 1: AMENDMENTS TO THE DASP GLOSSARY AND ACRONYMS LIST

1. The following **new**, **modified** and **removed** definitions are proposed for the DASP Glossary:

Air Display* (new)

Any event, or rehearsal for any event, at which Display Flying or Flypasts, are deliberately performed for the purpose of providing an exhibition of Defence Aviation's capabilities, values and professionalism.

Crowd Line (removed)

Display Flying* (new)

A subset of an Air Display whereby the flying activity is designed to demonstrate handling and operational capabilities, in the approved envelope for the Aircraft Type, using a display sequence flown by specifically qualified Crew.

Flypast* (modified)

A subset of an Air Display whereby a Flight of one or more Aircraft is tasked to pass over a specific location on a constant track and at a constant height at a specified time.

Minimum Separation Distance* (MSD) (new)

The authorised minimum separation, in all directions, between any part of an Aircraft in Flight and the ground, water or Obstacle. MSD applies when flying at less than 2,000 feet above the surface, and does not apply during take-off or landing or to the separation between Aircraft in the same formation.

SECTION 2: AMENDMENTS TO DASR SPA.05

The following is an editorial amendment to SPA.05 *Flying Rules for Special Missions and Tasks (yellow highlight shows differences):*

Current SPA.05 *Flying Rules for Special Missions and Tasks*

(a) The MAO must ensure promulgation of OIP that addresses, where applicable, rules and requirements relating to:

1. flypasts and flying displays
2. formation flying
3. airborne emergency training
4. missions and tasks involving search and rescue and aeromedical evacuation[1]
   Aeromedical evacuation regulated under DASR SPO
5. missions and tasks involving civil and community support activities
6. missions and tasks involving use of automated flight control, Communication, Navigation and Surveillance (CNS) and Air Traffic Management Systems (ATMS)
7. flights involving interaction with UAS
8. any other task or mission which requires special consideration.

(b) Flying rules and requirements with applicability under this regulation must be based upon a Risk Management assessment.

Amended SPA.05 *Flying Rules for Special Missions and Tasks*

(a) The MAO must ensure promulgation of OIP that addresses, where applicable, rules and requirements relating to:

1. Flypasts and Display Flying[1] *Flypasts and Display Flying are regulated under DASR SPA.30*
2. formation flying
3. airborne emergency training
4. missions and tasks involving search and rescue and aeromedical evacuation[2]
   Aeromedical evacuation is regulated under DASR SPO
5. missions and tasks involving civil and community support activities
6. missions and tasks involving use of automated flight control, Communication, Navigation and Surveillance (CNS) and Air Traffic Management Systems (ATMS)
7. flights involving interaction with UAS
8. any other task or mission which requires special consideration.

(b) Flying rules and requirements with applicability under this regulation must be based upon a Risk Management assessment.

SECTION 3: AMENDMENTS TO AMC SPA.20(a)

The following is an editorial amendment to AMC SPA.20(a) *Low flying minimum separation heights (yellow highlight shows differences):*

Current AMC SPA.20(a)11 and AMC SPA.20(a)12

11. The MAO should define low flying minimum separation heights and distances for aircraft types, within the following areas:

    a. Surveyed LFA and LFR

    b. Unsurveyed LFR

    c. Low Flying over water

    d. Flypasts and flying displays

    e. Built-up areas.

12. The following minimum heights apply to all fixed wing peacetime low flying operations:

    a. **Surveyed LFA and LFR.** Operations within a promulgated LFA and on a promulgated LFR may be authorised to a height not below 150 feet AGL.

    b. **Unsurveyed LFR.** Operations over land which are conducted over unsurveyed routes or areas, or for which the surveys are not current, may be authorised to a height not below 250 feet AGL.

    c. **Low flying over water.** By day, aircraft fitted with serviceable and operating ground proximity devices (eg radar altimeters) and operating over open water may be authorised to fly not below 100 feet AGL. Aircraft operating over water by day without radar altimeters are not to be authorised below 250 feet. By night, the MAO should determine if higher heights are suitable and publish the night minima heights in OIP.

    d. **Built-up areas.** Aircraft are not to be authorised for flight below 1000 feet Height Above Obstacles Within (HAOW) 600 meters of a built-up area without MAO approval.

Amended AMC SPA.20(a)11 and AMC SPA.20(a)12

11. The MAO should define low flying minimum separation heights and distances for aircraft types, within the following areas:

    a. Surveyed LFA and LFR

    b. Unsurveyed LFR

    c. Low Flying over water

d. Air Display

e. Built-up areas.

12. The following minimum heights apply to all fixed wing peacetime low flying operations:

a. **Surveyed LFA and LFR.** Operations within a promulgated LFA and on a promulgated LFR may be authorised to a height not below 150 feet AGL.

b. **Unsurveyed LFR.** Operations over land which are conducted over unsurveyed routes or areas, or for which the surveys are not current, may be authorised to a height not below 250 feet AGL.

c. **Low flying over water.** By day, aircraft fitted with serviceable and operating ground proximity devices (eg radar altimeters) and operating over open water may be authorised to fly not below 100 feet AGL. Aircraft operating over water by day without radar altimeters are not to be authorised below 250 feet. By night, the MAO should determine if higher heights are suitable and publish the night minima heights in OIP.

d. **Air Display.** MAOs and UAS Operators may authorise Air Display to not below the heights prescribed in DASR SPA.30.

e. **Built-up areas.** Aircraft are not to be authorised for flight below 1000 feet Height Above Obstacles Within (HAOW) 600 meters of a built-up area without MAO approval.

SECTION 4: AMENDMENTS TO AMC ORO.30(a)3

The following is an editorial amendment to AMC ORO.30(a)3.xiv(b)(iv) *Consideration of specific authorisation limitations (yellow highlight shows differences):*

Current AMC ORO.30(a)3.xiv(b)(iv)

iv. Consideration of specific authorisation limitations that may be applicable to:

(A) operational Missions

(B) Flight Crew training, for Flight Crew normal and emergency training and assessments

(C) Flight Tests

(D) the carriage of certain types of dangerous cargo

(E) Flying Displays.

Amended AMC ORO.30(a)3.xiv(b)(iv)

iv. Consideration of specific authorisation limitations that may be applicable to:

(A) operational Missions

(B) Flight Crew training, for Flight Crew normal and emergency training and assessments

(C) Flight Tests

(D) the carriage of certain types of dangerous cargo

(E) Air Displays.

SECTION 5: REVISED DASR SPA.30 DASR PART ONLY

The following replaces the extant DASR SPA.30 Part **in toto**.

DASR SPA.30 – AIR DISPLAYS

▸ GM

(a) MAOs and UAS Operators must ensure Air Display - related risks are managed IAW DASR SMS. ▸ GM ▸ AMC

(b) For Flypasts, MAOs and UAS Operators must:

1. obtain approval from the relevant single-Service approval authority prior to conduct ▸ GM ▸ AMC
2. document in OIP, conduct and manoeuvre limitations ▸ GM ▸ AMC
3. restrict personnel on board the Aircraft to Crew and Mission Essential Passengers only
4. ensure the release of objects and use of ground special effects will not compromise Aviation Safety or pose a risk to other Aircraft and property. ▸ GM ▸ AMC

(c) For Display Flying, MAOs and UAS Operators must, in addition to the requirements for Flypasts, ensure:

1. Display Crew, Flying Display Directors (FDD), FLTAUTHO and Display Flying Supervisors (DFS) are:
   i. selected based on their skill, experience, qualifications and airmanship ▸ GM ▸ AMC
   ii. competent and current ▸ GM ▸ AMC
2. Display Flying is appropriately supervised ▸ GM ▸ AMC
3. Display Flying OIP includes:
   i. handling notes ▸ GM ▸ AMC
   ii. approved manoeuvres and Display Sequences specific to Aircraft Type ▸ GM ▸ AMC
   iii. conduct and manoeuvre limitations ▸ GM ▸ AMC
   iv. emergency response plans (ERP) appropriate to the scale of the event. ▸ GM

SECTION 6: REVISED DASR SPA.30 DASR PART, AMC and GM

The following replaces the extant DASR SPA.30 Part **in toto**. AMC in purple text. GM in brown text.

DASR SPA.30 – AIR DISPLAYS

▾ GM

GM SPA.30 – Purpose statement and context (AUS)

a. **Purpose. (Context)** Air Displays enable Defence to demonstrate the capabilities, values and professionalism of Defence Aviation. **(Hazard)** Ineffective management of Defence Aircraft operations during Air Displays can compromise Aviation Safety. **(Defence)** This regulation requires MAOs and UAS Operators to establish effective management controls for Air Displays to ensure Aviation Safety.

b. **Applicability**. DASR SPA.30(a) and DASR SPA.30(b) apply to MAOs and UAS Operators conducting Air Displays. Additionally, DASR SPA.30(c) applies to MAOs and UAS Operators conducting Display Flying. This regulation applies whether as part of a Defence, international or civil event, and regardless of event location. Further, unless stated otherwise, Air Displays includes rehearsals for an Air Display.

c. MAOs and UAS Operators may consider implementing some of the controls from DASR SPA.30(c) for Flypasts to eliminate, and if not reasonably practicable to eliminate, to minimise risks SFARP, even though that Part does not apply to MAOs and UAS Operators conducting Flypasts. For example, Flypasts may be flown by any Type-qualified Crew. However, MAOs and UAS Operators should consider whether additional selection criteria should be defined for Crew conducting Flypasts. Similarly, MAOs and UAS Operators may consider appointing an FDD for complex Flypasts (eg where disparate Aircraft are conducting a formation Flypast).

d. Specific terminology and definitions:

   i. **Air Display Committee (ADC).** A group of suitably experienced persons appointed to assist the ADEO and FDD with the safety management of an Air Display. An ADC Chair may be appointed for complex Air Displays.

   ii. **Air Display Event Organiser (ADEO).** The person responsible for all matters pertaining to the wider planning and execution of an Air Display; and for the safety of the general public, both at the event and those affected by the wider impacts of the Air Display. The ADEO is a separate role to that of the FDD. However, the ADEO and FDD may be the same person.

   iii. **Crowd Line.** The line delineating the closest edge of any area, including car parks, accessible to Spectators with respect to the Display Area or Display Line.

iv. **Display Area.** The Airspace in which Aircraft conducting Display Flying may manoeuvre.

v. **Display Box.** The ground area footprint in the Display Area, thoroughly investigated pre-flight to identify and locate all hazardous obstructions. The Display Box should be, SFARP, clear of Spectators and Secondary Spectators, and hazardous obstructions.

vi. **Display Crew.** A generic term describing Flight Crew who are qualified and authorised to perform Display Flying.

vii. **Display Flying Supervisor (DFS).** A suitably qualified and experienced person selected by the MAO or UAS Operator to supervise Display Crew during Display Flying training and rehearsals. The DFS is a separate role to that of the FLTAUTHO. However, the DFS and FLTAUTHO may be the same person.

viii. **Display Line.** A line defining the track along which Aircraft conducting Display Flying should operate relative to.

ix. **Display Sequence.** Defined as:

(a) **Alternative Display Sequence.** A display sequence flown in circumstances when the weather (commonly referred to as a 'low show'), personnel or Aircraft serviceability (in the case of Display Teams) precludes flying the intended Display Sequence.

(b) **Special Venue Display Sequence.** A display sequence flown in circumstances where the venue is not suitable for flying a Standard Display Sequence. For example, an Air Display along a river can limit the Display Area laterally, requiring predominantly vertical manoeuvres along the Display Line.

(c) **Standard Display Sequence.** All the individual manoeuvres, in chronological order, that are intended to be demonstrated during Display Flying.

x. **Display Team.** A formation of Aircraft conducting Display Flying as one single 'act'.

xi. **Flying Display Director (FDD).** The person responsible for ensuring Defence Aircraft are operating in a safe and appropriately planned Air Display environment (commonly referred to as the 'Ringmaster'). An FDD should not be confused with the ADEO. However, the FDD and ADEO may in some cases be the same person.

xii. **Secondary Spectator.** A person viewing an Air Display from a location which has not been specifically designated for Spectators. This definition includes other persons affected by the Air Display even though those persons may not be viewing the Air Display.

xiii. **Spectator.** A person attending an Air Display specifically to witness the event.

e. The *Professional ADF Aviators' Reference Manual* (PAARM) provides additional Air Display supporting material.

(a) MAOs and UAS Operators must ensure Air Display - related risks are managed IAW DASR SMS ▾ GM ▾ AMC

AMC SPA.30(a) – Air Display Safety Risk Management (AUS)

a. MAOs and UAS Operators should define controls required to eliminate Air Display risk to safety SFARP and if not reasonably practicable to eliminate risks to safety, to minimise those risks SFARP, through Safety Risk Management (SRM). MAO and UAS Operators' Air Display SRM should include consideration of:

i. environmental threats

ii. the Display Area and Flypast route

iii. Aircraft emergencies

iv. Display Sequences, including the number and complexity of manoeuvres.

GM SPA.30(a) – Air Display Safety Risk Management (AUS)

a. **Safety Risk Management (SRM).** The safety of Crew, officials, Spectators and Secondary Spectators is paramount throughout any Air Display. The application of SRM, including Air Display - generic Mission Risk Profiles (MRP), will aid the Accountable Manager (AM) in identifying relevant Hazards and risk controls to eliminate, and if not reasonably practicable to eliminate, to minimise risks SFARP. Additionally, documented Risk Management Plans (RMPs) specific to each Air Display, will provide opportunities to implement necessary contextual controls. Air Display approvals are based on these SRM artefacts.

b. However, SRM should also be scaled to the size and complexity of the Air Display. For example, a Flypast by a single Aircraft over a graduation parade will not require the same SRM as a complex display with multiple participants.

c. In particular, MAOs and UAS Operators should consider the following Air Display - related Hazards:

i. **Environmental Hazards.** Air Display performance and risks to Spectators can be affected by environmental conditions. Close scrutiny of the expected weather at the Display Area and along the Flypast route will assist with identifying and controlling conditions that can directly affect the safety of the Air Display. Understanding the expected weather will also assist with determining which Display Sequence (eg Standard Display Sequence or Alternative Display Sequence) should be flown.

ii. **Display Area and Flypast route Hazards.** Risks associated with the Display Area and Flypast route are related to the geographic construct of

the Display Area and Flypast route, as well as the congestion in both the air and ground space of the Display Area and Flypast route, and the adjacent areas. Crew analysis of the Display Area and Flypast route will assist in determining which Display Sequence (eg Standard Display Sequence or Special Venue Display Sequence) should be flown. Display Area and Flypast route-related pre-flight planning should consider the:

(a) geography, terrain, obstacles (including moveable obstacles such as vessels) and infrastructure

(b) elevation and density altitude

(c) airspace, including:

1. proximity to controlled airspace, Aerodromes and areas with specific limitations (eg Flight plan requirements or special procedures)

2. other airspace users (eg scheduled air transport operations)

3. constraints with Display Sequences (eg parachute displays may restrict flying, ground movement and engine starts)

(d) availability of clear areas in the event of a forced landing or ejection

(e) available support services (eg the provision of ATS)

(f) likelihood of overflight of Spectators and Secondary Spectators, and whether these people are aware of risks

(g) size, audience and priorities of the Air Display and how Display Flying and Flypasts are integrated with the event

(h) presence of livestock and wildlife.

iii. **Aircraft-related Hazards**. MAOs and UAS Operators should consider the following Aircraft-related Hazards:

(a) configuration, energy, aerodynamic performance and noise

(b) potential emergencies, including:

1. emergencies resulting from mishandled manoeuvres

2. rotary-wing Aircraft:

A. loss-of-power while operating in the avoid area of the height-velocity diagram

B. loss of tail-rotor effectiveness

C. vortex ring state

(c) potential debris scatter patterns following collision, CFIT or for Aircraft where compliant airworthiness codes or specifications may not exist (eg WHRA), catastrophic failure

(d) rotor downwash and propeller and jet blast

(e) wake turbulence.

iv. **Display Sequence Hazards.** The risk posed by the Display Sequence is related to its complexity, the height at which it is flown, and the proximity of the Display Sequence to Spectators and Secondary Spectators. In turn, the complexity of the Display Sequence is proportional to the energy level, and the number and difficulty of, manoeuvres in the sequence. The energy of the Display Sequence is proportional to both Aircraft mass and the square of the true airspeed (eg a heavy Aircraft flying at higher speeds will inherently be performing higher energy sequences). Display Sequence energy considerations are important for determining potential Aircraft debris scatter patterns.

v. Display Sequence risk considerations should consider the ability of the Aircraft to land outside of areas where Spectators and Secondary Spectators are gathered, in the event of an engine failure or other airborne emergency during a Display Sequence that necessitates a forced landing or ejection.

vi. **Fatigue.** Display Flying can result in additional physical fatigue and neck muscle strain or injury. Physical fatigue and muscle strain is largely dependent on head movement, and G-forces encountered during Flight. The establishment of Display Flying - specific fatigue control measures (eg training, physical fitness and conditioning programs and duty limitations) will reduce fatigue and injury SFARP.

vii. **UAS-related threats.** Safety data analysis shows that illegal recreational UAS usage increases in the vicinity of Air Displays, particularly those associated with high-profile public events (eg Australia Day and Anzac Day). Illegal UAS operations at or near an Air Display can present a Hazard to participating Aircraft. Therefore, MAOs and UAS Operators should conduct SRM of the risks posed by illegal UAS operations in the vicinity of Air Displays.

d. **Civilian locations.** The ADEO, FDD and Crew should not assume that the same level of controls (eg site preparation and FOD awareness) are in place at civilian locations as there are in military controlled environments. MAOs and UAS Operators should conduct their SRM accordingly.

(b) For Flypasts, MAOs and UAS Operators' must:

1. obtain approval from the relevant single-Service approval authority prior to conduct ▾ GM ▾ AMC

AMC SPA.30(b)1 – Approval requirements (AUS)

a. MAOs' and UAS Operators' Air Display approval process should ensure that:

i. management controls are established IAW this regulation

ii. when applicable, CASA approval has been granted for civil Aircraft participating in Defence-organised Air Displays.

GM SPA.30(b)1 – Approval requirements (AUS)

a. Air Displays require four distinct approvals, as follows:

i. the 'Authority to Conduct' IAW single-Service policy

ii. the single-Service task Order

iii. the approval of the Flight profile, airspace coordination measures, risk assessment and the required public affairs support to generate community awareness of the profile IAW single-Service policy

iv. FLTAUTH.

b. MAOs and UAS Operators may consider including Crew training, rehearsal or Competency requirements as a condition of Flypast approval, particularly if the Flypast forms part of a complex Air Display. The Competency requirements may be the same as, or a subset of, the training provided to Display Crew.

c. **Multiple Flypasts in a single sortie.** The MAO or UAS Operator may approve multiple Flypasts in a single sortie. The intention is that DASR SPA.30 should not prevent the efficient use of Defence Aircraft for Public Relations (PR) purposes. For example, if an Aircraft transits from Williamtown to the Gold Coast to conduct a PR activity, the MAO has the freedom to approve more than one Flypast for that Aircraft in that Flight.

d. The MAO or UAS Operator should consider whether the activity constitutes Display Flying if manoeuvres or formation changes to reposition for subsequent Flypasts are conducted in proximity to, and in full view of Spectators. The intent is to prevent a liberal interpretation of the definition of Flypast from alleviating the requirement for appropriate Display Flying risk controls, which are lessons learnt from the 2005 Roulettes accident and the 2019 C-130J near - controlled Flight into terrain (CFIT) incident.

e. However, Display Flying risk controls are scalable. If for example, additional passes are flown, linked by simple non-dynamic manoeuvring (and where appropriate formation changes) then the required Crew selection, rehearsal, etc is limited. Conversely, for a display of comparable complexity to a Roulette display, then the rehearsal should be comprehensive, the Crew selection demanding, etc.

2. document in OIP, conduct and manoeuvre limitations ▾GM ▾AMC

AMC SPA.30(b)2 – Flypast conduct and manoeuvre limitations OIP (AUS)

a. MAOs and UAS Operators should define conduct and manoeuvre limitations that include:

i. **Aircraft configuration limitations.** MAOs and UAS Operators should ensure that Aircraft:

(a) are not operated with:

1. an engine deliberately shut down

2. live weapons

(b) weapons' circuit-breakers and switches are in a 'safe' condition (except for flare systems when dispensing flares is planned).

ii. **Weather minima.** MAOs and UAS Operators should publish weather minima that:

(a) is appropriate to Crew experience, Aircraft performance and Display area or Flypast route

(b) ensure Crew remain clear of cloud with a visibility sufficient to maintain both situational awareness and separation from Spectators, other Aircraft and terrain

(c) is appropriate for the Flight rules and Class of airspace (eg VMC requirements).

iii. **Speed limitations.** Aircraft speed should not exceed Mach 0.90 or 600 KIAS, whichever is least, and the Crew should reduce speed further before initiating any manoeuvre, so as to avoid accidental generation of a sonic disturbance.

iv. **Height limitations.** The following minimum heights apply:

(a) for crewed fixed-wing Aircraft:

1. 200 feet MSD for a Flypast conducted in a Display Box or at a Surveyed Area

2. 200 feet HAOW 600 m for a Flypast conducted outside a Display Box or in an unsurveyed area

(b) for crewed rotary-wing Aircraft, 100 feet MSD

(c) for UAS, as defined by the UAS Operator using SRM, that ensures the UAS is not a hazard to other Aircraft or General Public

(d) for all Aircraft when dispensing flares, 2000 feet AGL over land and 500 feet over open water, except that MAO-AMs and UAS Operators should increase these heights using SRM, when thrusted flares (eg MJU-57) are employed.

GM SPA.30(b)2 – Flypast conduct and manoeuvre limitations OIP (AUS)

a. **Aircraft configuration.** Configuring the Aircraft in a way that maximises Aircraft performance (eg removing external stores or operating with low fuel loads) can in the event of an emergency, aid in recovery or reduce the likelihood of CFIT. However, where relevant, MAOs and UAS Operators should consider carrying additional fuel where that additional fuel will afford greater protection against structural damage. Similarly, where relevant, MAOs and UAS Operators should consider using configurations that will afford optimal protection against structural damage, for example for C-130J:

> *effects of secondary fuel management on service life and inspection requirements have not been established; therefore, secondary fuel management should be used advisedly, especially when operating near the gross weight limit for the applicable manoeuvre or airspeed.* (AAP 7211.031-1 – *Hercules C-130J-30 Flight Manual* refers)

b. Where practical, MAOs and UAS Operators should remove hazardous materials (HAZMAT) from Aircraft. If this is not practicable, MAOs and UAS Operators should advise first responders of HAZMAT and its location on the Aircraft. Additionally, MAOs and UAS Operators should include HAZMAT considerations in the emergency response plan (ERP).

c. **Speed limitations.** MAOs and UAS Operators should consider publishing minimum operating speeds that:

i. provide sufficient margin above the stall (eg 1.3 times the stall speed for the Aircraft configuration)

ii. enable multi-engine fixed-wing Aircraft to climb away, without change of configuration, if any one engine fails.

3. restrict personnel on board the Aircraft to Crew and Mission Essential Passengers only

4. ensure the release of objects and use of ground special effects will not compromise Aviation Safety or pose a risk to other Aircraft and property. ▼GM ▼AMC

AMC SPA.30(b)4 – Release of objects and use of ground special effects (AUS)

a. MAOs and UAS Operators should:

i. establish controls for the release of objects and use of ground special effects during Air Displays through SRM and document these controls in Air Display MRP or RMP

ii. ensure objects have technical and operational clearance for release from the participating Aircraft

iii. document the approval of the release of objects or use of ground special effects during the Air Display

iv. if conducting parachuting, and excluding the drop Aircraft, require that from dispatch until all parachutists are on the ground:

(a) all flying activity in the drop zone (as defined in *Manual of Air Traffic Services*) is ceased

(b) propellers and rotors of Aircraft in the drop area are not turning

v. ensure flares are dispensed from a location such that remnants will not present a Hazard to officials, Spectators, Secondary Spectators, ground equipment or Aircraft

vi. ensure ground special effects are discharged from a location:

(a) such that remnants of the device will not present a Hazard to officials, Spectators, Secondary Spectators, ground equipment or Aircraft

(b) that is not accessible to anyone except those directly involved with discharging the special effects.

GM SPA.30(b)4 – Release of objects and use of ground special effects (AUS)

a. This regulation requires MAOs and UAS Operators (as the accountable entity) to ensure adequate controls for ground special effects are implemented for Air Displays. However, MAOs and UAS Operators may assign (delegate) responsibility for controlling and coordinating ground special effects to an FDD or external organisation.

b. **Parachuting and airdrop.** ADFP 3.9.1 – *Airborne Operations Procedures* provides guidance on parachuting and airdrop planning, procedures and drop zone requirements, and should be read in conjunction with this regulation.

c. **Dispensing of flares.** Falling flares and debris can present additional risks to vessels and marine fauna when dispensed over water. Additionally, Secondary Spectators may mistake the flare release for a distress signal.

Therefore, MAOs and UAS Operators should consider the following if dispensing flares over water:

i. raising a NOTAM

ii. advising the Australian Maritime Safety Authority (AMSA).

d. **Ground special effects.** MAOs and UAS Operators should consider the following if using ground special effects during an Air Display:

i. documenting the location of special effects in Air Display instructions, and including those locations in the pre-Air Display briefing

ii. ensuring the ADEO and the FDD are fully aware of the safety radii and how ground special effects can impact the Air Display

iii. offsetting ground special effects from the Display Line or Flypast route so that Aircraft are not overflying the effects, reducing the likelihood of debris striking the Aircraft

iv. reduction to Aircraft visibility from smoke emitted by ground special effects.

(c) For Display Flying, MAOs and UAS Operators' must, in addition to the requirements for Flypasts, ensure:

1. Display Crew, Flying Display Directors (FDD), FLTAUTHO and Display Flying Supervisors (DFS):

i. selected based on their skill, experience, qualifications and airmanship
▼GM ▼AMC

AMC SPA.30(c)1i – Crew, FDD and DFS selection

a. MAOs and UAS Operators should define selection criteria for Display Crew, FLTAUTHO, FDD and DFS.

GM SPA.30(c)1i – Crew, FDD and DFS selection

a. **Display Crew and FDD selection.** Air Display flying is dynamic; and physically, mentally and emotionally demanding. Manoeuvring in the low-level environment demands skill and focus, plus considerable practice and the right attitude. Display Crew or FDD miscalculation or ill-discipline can have serious consequences for the Display Crew and people on the ground. Therefore, Display Crew and FDD should be aware of, and understand, the responsibilities of their role. Equally, MAOs and UAS Operators should be satisfied that candidates are appropriately skilled and experienced. Appropriate determinants of skill and experience may include:

i. for Aircraft Captains (AC) and FDD—Category B (Highly Proficient)

ii. for other Crew in multi-crew Aircraft—Category C (Proficient)

iii. hours requirements.

b. Additionally, MAOs and UAS Operators should consider whether Display Crews and FDDs exhibit the following personal traits:

i. an ability to manage the pressure inherent in public Air Displays

ii. a high-level of in-Flight situational awareness

iii. humility.

c. **Qualifications and Airmanship.** The best hands and feet Pilot in a FEG with the most hours may not be a suitable Display Flying candidate if that individual lacks the judgement to apply the safety philosophies of Display Flying effectively; or lacks the necessary representational qualities. Specifically, Display Crew must understand that the Display Sequence must not be designed or flown to the limits of the aircraft or regulations, such that a disturbance results in an exceedance or violation. Display Crew must understand that they should not compete with the 'ice cream cornetto' for the attention of Spectators—and that to a Spectator a 5G turn on the buffet looks similar to a 4G turn off the buffet; but the 4G turn gives the Display Crew room for corrections so that a small disturbance does not result in a Crowd Line violation or an accelerated stall. Further, without selecting Display Crew from the pool of Aircrew Instructors, the ability to safely train the next Display Crew is curtailed.

d. **DFS selection.** DFS should be executive Crew in the MAO's or UAS Operator's organisation. However, given the heavy demands on time, particularly during initial Display Crew training, it may be beneficial to appoint non-executive Crew as DFS. Preferably, the DFS should:

i. be both current on the Aircraft Type and have previous Display Flying experience—ideally on the Aircraft Type

ii. be a FLTAUTHO

iii. exhibit the following personal traits:

(a) personable and with good communication skills, enabling them to provide discreet and firm discussions with Display Crew when necessary

(b) possess strong foundational SRM skills, so as to be perceptive to the inherent risks of Display Flying

(c) demonstrate excellent leadership to engender a safe, yet disciplined Air Display culture.

ii. Competent and current ▾ GM ▾ AMC

AMC SPA.30(c)1ii – Competency and Currency (AUS)

a. **Competency.** MAOs and UAS Operators should:

i. for Display Crew, implement Competency requirements which:

(a) reference the applicable Learning Management Plan (LMP, if implemented)

(b) includes both knowledge and skills training and assessment

(c) is conducted by a Flying Instructor

(d) ensures the candidate:

1. can fly the published Display Sequences safely and effectively

2. is proficient in identifying conditions to cease a display manoeuvre and performing the subsequent manoeuvres to maintain safe Flight thereafter

ii. for FLTAUTHO, in addition to requirements in DASR ORO.30, require the candidate to either:

(a) have Display Flying experience

(b) possess technical mastery to compensate for the lack of Display Flying experience

iii. for FDD, ensure the candidate:

(a) is Crew

(b) completes the *Flying Display Supervisor Qualification Course* delivered by either:

1. AFHQ Air Shows Team (AST)

2. a qualified and current FDD, in consultation with Head of Air Shows (HAS) AFHQ.

b. **Currency**. MAOs and UAS Operators should:

i. for Display Crew, define:

(a) Currency requiring Display Crew to perform the Display Sequence in the preceding 30 calendar days[1] *MAOs and UAS Operators may define Currency periods in equivalent calendar weeks or months; and may reduce periodicity.* at the relevant approved minima

(b) requirements to regain Currency if the Display Crew has not performed the Display Sequence in the preceding 30, 60 and 90 calendar days[2] *MAOs and UAS Operators may define Currency periods in equivalent calendar weeks or months; and may reduce periodicity.*

(c) methods to regain Currency which include:

1. training to regain Currency conducted IAW AMC SPA.30(c)1ii.c.

2. requiring the Display Crew to fly an approved Display Sequence

ii. for FDD:

(a) ensure the FDD has acted as an FDD at an Air Display at least once in the preceding two years

(b) establish methods to regain Currency.[3] *MAOs and UAS Operators should refer to AFHQ AST OIP when establishing methods for FDD to regain Currency.*

c. **Skills training.** Display Crew Competency and Currency skills training should:

i. maximise the use of FSTD

ii. initially be conducted:

(a) in familiar environments (eg over the Display Crew's own Aerodrome)

(b) at higher heights, then progressively reducing height to the minimum approved Display Flying limitation, with the exception that this requirement does not apply to rotary-wing Aircraft if the requirement would:

1. require the rotary-wing Aircraft to operate in the avoid area of the height-velocity diagram

2. degrade Display Crew visual cues necessary for low speed manoeuvring

d. **Records.** MAOs and UAS Operators should record:

i. Display Crew and FDD training, Competency and Currency IAW DASR AIRCREW.10(a)6

ii. Air Display FLTAUTHO approvals IAW DASR ORO.30.

GM SPA.30(c)1ii – Competency and Currency (AUS)

Competency

a. **Display Crew Competency.** MAOs and UAS Operators need not develop a discrete Display Flying LMP. Where Display Crew are trained and assessed as competent to fly the Display Sequences as part of basic or other qualifications, the applicable LMP for this training will suffice.

b. The 'knowledge' component of Display Crew training provides personnel with a common frame of reference and language, and may include topics such as:

i. Air Display approval requirements

ii. roles and responsibilities of Display Crew, FLTAUTHO, DFS, FDD and ADEO

iii. OIP supporting the planning and execution of Display Flying

iv. Non-Technical Skills (NTS) relating to Display Flying

v. determining Crowd Lines and lateral safety distances

vi. each manoeuvre in the Standard Display Sequence and Alternative Display Sequence (and Special Venue Display Sequence if applicable), including:

(a) safety gates (eg heights, speeds and Aircraft position relative to the Display Line) and recovery options

(b) adjustments for wind and density altitude

vii. Flight conduct and manoeuvre limitations

viii. decision making in the event of an emergency.

c. **FLTAUTHO Competency.** A FLTAUTHO holding a Display Flying Competency may support improved Hazard identification through a better appreciation of considerations relevant to Air Displays, including:

i. criteria to cease an Air Display manoeuvre; and to not commence or cease an Air Display entirely

ii. Segregation arrangements

iii. environmental aspects (eg elevation and the use of QFE for Display Flying, contrast conditions, weather, visibility)

iv. location and Display Flying specific emergency procedures

v. Display Sequence complexity, and associated risks and controls

vi. limitations of the FLTAUTH and approval (IAW single-Service policy)

vii. Crew composition, qualifications and Currency.

d. FLTAUTH technical mastery for FLTAUTHO without Display Flying experience may be achieved through a controlled and progressive process of training and accumulated experience, including:

i. demonstrated Competency across a spectrum of operations for the Aircraft Type

ii. understanding the elements of the 'knowledge' component of Crew Display Flying training

iii. appreciation of the foregoing FLTAUTHO considerations relevant to Air Displays.

e. **FDD Competency.** AFHQ AST is the centre of excellence for FDD qualification, training, Currency and supervision. MAOs and UAS Operators should consider liaising with HAS AFHQ if using a non-AST FDD to deliver the *Flying Display Supervisor Qualification Course* 'in-house'.

f. MAOs and UAS Operators may consider establishing FDD categories; and restricting the types of Air Displays (eg military-only Air Displays) an FDD may be appointed to—depending on category. If so, it would be appropriate to establish requirements for progression through the categories. UK MAA Regulatory Article (RA) 2335 – *Flying Displays, Display Flying, Role Demonstrations and Flypasts* provides additional guidance regarding FDD category systems.

Currency

g. **Display Crew Currency.** Where Currency has lapsed, MAOs and UAS Operators should consider tailored Display Crew re-currency training—that is a subset of the training provided for initial Display Crew qualification. For example, a recently lapsed Currency may be regained through skills-based re-currency training only. Whereas, a Currency that has long lapsed, may require both knowledge and skills-based training and reassessment.

h. An exemplar method for Display Crew to regain Currency is that if the Display Crew has not performed a Display Sequence in the preceding:

i. 31 to 60 days, the Display Crew conduct a Display Sequence at the:

(a) relevant approved minima plus 500 feet, and then

(b) relevant approved minima.

ii. 60 days, the Display Crew conduct a Display Sequence at the:

(a) relevant approved minima plus 1000 feet, and then

(b) relevant approved minima plus 500 feet, and then

(c) relevant approved minima.

i. Display Crew Currency requirements may differ across Crew positions.

j. **FDD Currency.** AFHQ AST is the centre of excellence for FDD qualification, training, Currency and supervision. MAOs and UAS Operators should consider liaising with HAS AFHQ when determining FDD Currency requirements and re-currency training requirements.

k. The two year FDD Currency allows the MAO or UAS Operator to set appropriate compliance periods and aligns with international best practice. However, the MAO or UAS Operator may impose more stringent Currency requirements. FDD participation at an Air Display may not, in itself, be sufficient to retain Currency. MAOs and UAS Operators should consider the minimum functions and roles to be performed at the Air Display to meet FDD Currency. For example, an FDD that only has a supporting role as part of an ADC may not be considered to have met Currency requirements. Similarly, acting as an FDD at an Air Display that only involves Flypasts may be insufficient to meet FDD Currency.

l. Where Currency has lapsed, MAOs and UAS Operators should consider tailored FDD Currency training that includes a review of planning, organisation and management considerations for Air Displays, as well as supervision and assessment by another current FDD at an Air Display.

2. Display Flying is appropriately supervised ▸ GM ▸ AMC

AMC SPA.30(c)2 – Supervision (AUS)

a. MAOs and UAS Operators should ensure that:

i. where practicable, Display Flying rehearsals and the Display Flying event are authorised in person, by the same FLTAUTHO

ii. a suitably experienced FDD is appointed where the complexity of the event, types or numbers of Aircraft participating, or other factors, warrant appointing an FDD with defined responsibilities

iii. a DFS is appointed for Display Teams.

GM SPA.30(c)2 – Supervision (AUS)

a. **Flight Authorisation.** FLTAUTHO should conduct Air Display FLTAUTH in person—to optimise Flying Supervision. DASR ORO.30 includes specific requirements and considerations for FLTAUTH, or changes to FLTAUTH, which are given verbally or via electronic means.

b. FLTAUTH includes oversight of the full spectrum of the Air Display. However, emphasising the following Air Display elements will enhance the effectiveness of the FLTAUTH process:

i. adherence to minima and safety gates (eg heights, speeds and Aircraft position relative to the Display Line)

ii. contingency and emergency procedures

iii. Display Crew decision making, including:

(a) the use of SRM to support decisions

(b) key decision points for transitioning from the Standard Display Sequence to the Alternative Display Sequence or Special Venue Display Sequences, or for cancelling the Air Display

iv. the Display Crew's primacy in making any cancellation decisions (vice ADEO, FDD and DFS), that is:

(a) if the Display Crew identify any trigger to cancel the display (eg poor weather or breakdown in deconfliction) and cancels participation in the Air Display, then no other appointment should attempt to override the Display Crew's cancellation decision

(b) any responsible appointment (eg FLTAUTHO or FDD) may make a cancellation decision, and the FLTAUTHO or FDD should convey any cancellation messages via two-way communication, such as telephone (before dispatch) or radio when the Flight is in progress (ie cancellation should not be communicated via an informal messaging application)

NOTE: A 2019 near-CFIT incident during an Air Display in Sydney Harbour highlighted some of the Hazards associated with using an informal messaging application:

The message thread was used by a number of participants who provided weather updates, opinions on the ability of the crew to conduct the display, and advice on how to achieve the display. Notably, the authorising officer was one of those participants. In addition, there were increasing communications about the need to make a decision on whether the Aircraft would be able to conduct the display, given the weather…

…The informal nature of the communications introduced misunderstandings ([eg] the differing understanding of the AC and the authorising officer with respect to the special VFR approval), and ambiguity. It is possible that the directive tone of some of the authorising officer's messages influenced the crew to subconsciously defer the decision about the display to the authorising officer.

v. Display Crew workload management in the lead up to and during the Air Display.

c. **FDD and ADC appointment.** AFHQ AST is the ADF lead for the provision of FDD. However, MAOs and UAS Operators (as the accountable entity) should ensure the assigned FDD is suitably skilled and experienced to ensure the MAOs' or UAS Operators' Aircraft are operating in a safe and appropriately planned Air Display environment. Note, in meeting the obligation to 'ensure' a suitable FDD is appointed, the MAO or UAS operator does not necessarily have to appoint the FDD. At Defence Air shows, the AFHQ AST will typically appoint the FDD. In this case, the MAO or UAS operator can meet their 'ensure' obligation by confirming that AFHQ AST (or another appropriate organisation) have appointed an FDD (eg through the MAO or UAS Operator's normal planning and FLTAUTH processes). However, if the MAO or UAS Operator is hosting a Display Flying event (independently of the AFHQ AST) that requires an FDD, then the 'ensure' obligation includes the appointment of that FDD.

d. The role of the FDD is vital to a complex Air Display—they are responsible for ensuring Defence Aircraft are operating in a safe and appropriately planned Air Display environment, including:

i. reviewing risk management artefacts to ensure:

(a) validity of nominal conditions, assumptions and limitations

(b) implementation of SRM controls

ii. ensuring that an appropriate ERP is in place

iii. submitting designated airspace change proposals (eg to activate a Temporary Restricted Area (TRA)) and NOTAMS

iv. providing for pre – (and where relevant and feasible post –) Air Display briefings'

v. scrutinising Display Sequences for compliance with ADEO requirements

vi. coordinating and controlling—and ensuring the safety control discipline of (eg Display Line maintenance)—all Display Sequences

vii. controlling the Defence components of the Air Display programme, including:

(a) cancelling or modifying (in case of adverse weather, or other conditions that directly affect) the Air Display

(b) coordinating pyrotechnics and other ground special effects

viii. enabling CAA inspectors (where applicable) to ensure civil compliance by civil participants

ix. coordinating the completion and submission of post-activity reports.

e. In the civil context, the CAA appointed FDD holds legal and regulatory accountabilities. At civil events, MAOs and UAS Operators should consider whether a Defence FDD is required to confirm the civilian FDD has undertaken the above planning requirements.

f. The establishment of an ADC and appointment of an ADC Chair for complex Air Displays will enhance overall coordination and safety of the Air Display, and will enable administrative duties to be distributed among committee members, allowing the Chair to primarily focus on Air Display control. The construct of the ADC will be dependent on the complexity of the Air Display. Ideally, the ADC should comprise suitably experienced FDDs from the various commands displaying at the event, and may be supplemented by ATS and civil representatives. The ADC Chair should delegate FDD tasks, based on expertise and experience of its members.

g. **DFS appointment.** The DFS acts as both a mentor to Display Crew, and safety observer for Display Flying training and rehearsals. Display Crew preparation, training and rehearsal requires near continuous supervision. Therefore, in nominating a DFS, MAO-AMs and UAS Operators should be cognisant of, and facilitate the close supervisory requirements of a DFS, particularly during early phases, when continuity, trust and communication are vitally important to the success of the training and rehearsals.

3. Display Flying OIP includes:

i. handling notes ▾ GM ▾ AMC

AMC SPA.30(c)3i – Display Flying handling notes (AUS)

a. MAOs and UAS Operators Display Flying handling notes should document:

i. the planning and execution of Display Flying manoeuvres and Display Sequences

ii. altimeter setting procedures, including using QFE for Display Flying

iii. normal and in-Flight emergency recovery procedures.

GM SPA.30(c)3i – Display Flying handling notes (AUS)

a. **Planning and execution of manoeuvres and sequences.** MAOs and UAS Operators' handling notes form a consolidated reference for Display Crew. However, handling notes are not intended to replace information in OIP. Rather, handling notes should include information on Air Display 'domestics' (eg start, taxi, take-off and recovery procedures) and 'how to' plan and fly specific manoeuvres and Display Sequences.

b. **Altimeter setting.** Safety data analysis highlights the disastrous consequences that can occur if Display Flying on QNH instead of QFE. Setting QFE for Display Flying enables Display Crews to use the altimeter as the primary height reference throughout the Display Sequence—decreasing Crew workload and increasing height awareness. Display Crew should be aware that setting QFE can introduce new forms of error and hence should be carefully considered. Handling notes should provide sufficient guidance to Display Crew on the Hazards of incorrect altimeter settings, which sub-scale setting to use, when to make sub-scale setting changes, and system checks required following sub-scale setting changes.

ii. approved manoeuvres and Display Sequences specific to Aircraft Type ▾GM ▾AMC

AMC SPA.30(c)3ii – Approved manoeuvres and Display Sequences (AUS)

a. MAO and UAS Operator OIP should:

i. document approved Air Display manoeuvres and Standard Display Sequences, Alternative Display Sequences and Special Venue Display Sequences specific to Aircraft Type

ii. for Display Teams only, define:

(a) permissible alterations to Display Sequences in case Display Teams are degraded (eg due to an Aircraft unserviceability or Flight Crew illness)

(b) Display Team formation normal and in-Flight emergency recovery procedures.

GM SPA.30(c)3ii – Approved manoeuvres and Display Sequences (AUS)

a. The *Professional ADF Aviators' Reference Manual* (PAARM) provides additional guidance to support the development of safe Display Sequences. However, MAOs and UAS Operators should consider the following when developing and approving Display Sequences:

i. how weather and the Display Area affect the Display Sequence

ii. the Aircraft and Display Crew capabilities

iii. manoeuvre energy states (eg losing or gaining energy) and the interrelationship with:

(a) turn performance, cornering velocities and energy preservation

(b) height and speeds requirements

(c) safety gates (eg heights, speeds and Aircraft position relative to the Display Line)

(d) linking manoeuvres

(e) the Display Crew's ability to exit a sequence, or recover the Aircraft in the event of an emergency.

iv. avoiding sustained G or G-reversal

v. the safe integration of any object release as part of the display (including consideration of relevant failures).

b. Additionally, while operating Aircraft to the allowable limits of the Flight and performance envelope may provide visually exciting Display Flying, it can also introduce unnecessary risk. For example, reducing bank or G in a turn looks just as tight from the ground as flying a maximum bank or G turn, and the general public are unlikely to detect the difference. However, reducing the G provides a safety margin if the turn needs to be tightened and from the physiological effects of acceleration.

c. Air Display risk and Display Crew workload increases if Display Sequences are modified while mid-display. Display Crew should not make significant modifications to the Display Sequence airborne (eg changing entry gates for manoeuvres, or adding or substituting manoeuvres). However, Display Crews should make standard adjustments for wind. For example, adjusting the timing of pitch up for vertical manoeuvres; switching Cuban eights and lazy eights for reversal manoeuvres with wind along the Display Line; small angle of

bank during looping manoeuvres to compensate for wind across the Display Line.

d. **Standard Display Sequence.** The term 'Standard Display Sequence' does not imply that all Display Crew in any particular MAO must only fly the same sequence. In developing well rounded Display Crew, it is a useful exercise (as part of their Display Crew training) to design and develop a bespoke Display Sequence, consistent with the MAO's or UAS Operator's OIP and this regulation.

iii. conduct and manoeuvre limitations ▾GM ▾AMC

AMC SPA.30(c)3iii – Conduct and manoeuvre limitations (AUS)

a. MAOs and UAS Operators should ensure that Display Crew and officials:

i. conduct briefings (and debriefs when relevant and feasible) for all Air Displays

ii. establish safety calls to be used during Air Displays.

b. MAOs and UAS Operators' OIP should document Display Flying conduct and manoeuvre limitations, including:

i. **Speed limitations.** In addition to the requirements of AMC SPA.30(b)2a.iii, Aircraft should not exceed 350 KIAS, and Display Crew should not operate at high power settings, when approaching the Display Area from the rear of the crowd.

ii. **Height limitations.** The following minimum heights apply:

(a) for crewed fixed-wing Aircraft:

1. 500 feet HAOW 600 m where Display Flying includes aerobatic manoeuvres

2. 200 feet MSD for non-aerobatic Display Flying conducted in a Display Box or at a Surveyed Area

3. 250 feet HAOW 600 m for non-aerobatic Display Flying conducted outside a Display Box or in an unsurveyed area

4. 1000 feet HAOW 600 m for recovery to erect Flight following spinning

(b) for crewed rotary-wing Aircraft:

1. 100 feet HAOW 100m for display manoeuvres (eg wingovers or pedal turns)

2. 50 feet MSD for low speed handling manoeuvres, except for live winching demonstrations which may be conducted at a height that provides the maximum degree of safety for the wireman (person being winched).

iii. **Avoiding Spectator and Secondary Spectator areas.** MAOs and UAS Operators should ensure Display Crew avoid manoeuvres over:

(a) Spectator areas without MAO-AM or UAS Operator approval, unless the manoeuvre is a single Aircraft in erect Flight, not below 500 feet HAOW 600 m, when positioning for the beginning of, or on departure from, a Display Sequence

(b) foreseeable areas that Secondary Spectators are likely to gather.

iv. **Safe distances from Spectators.** MAOs and UAS Operators should publish minimum lateral safety distances between the Crowd Line and Display Line appropriate to Display Crew experience, Aircraft performance, and Aircraft debris scatter patterns following collision or CFIT. Lateral safety distances should not be less than:

(a) for crewed fixed-wing Aircraft, 200 m. However, the MAO should increase the distance when Aircraft have a significant vector towards the Crowd Line

(b) for crewed rotary-wing Aircraft:

1. 65 m without an underslung load and 100 m with an underslung load, during normal take-off, landing, static hover and transitional manoeuvres

2. 200 m in all other stages of Flight.

(c) for UAS:

1. that are Certified UAS, 200 m

2. that are Specific Type A UAS and Specific Type B UAS with an MTOW of 25 kg or less, existing operational controls published in an approved ATMP or ATOUAS with specific reference to

separation from crewed Aircraft and Spectators and Secondary Spectators

3. with an MTOW greater than 25 kg; or where no specific separation standards are published, 200 m.

v. Notwithstanding, for rotary-wing Aircraft, MAOs and UAS Operators should:

(a) increase lateral safety distance downwind by an additional 20 m per 10 knots of wind during take-off, landing and transitional manoeuvres

(b) conduct further Hazard analysis of rotor downwash and outwash effect and increase lateral safety distance using SRM:

1. where officials or fragile objects (eg marquees or advertising hoarding), are closer than the Crowd Line

2. where channelling or funnelling objects (eg buildings or concrete barriers) are likely to direct or accelerate the outwash

3. for heavy wake turbulence category Aircraft (as defined in ADF FLIP).[4] *Lateral safety distance for crewed rotary-wing Aircraft is based on a medium wake turbulence category Aircraft.*

vi. MAOs and UAS Operators should provide guidance to Display Crews that:

(a) if on approaching the Display Area, the Display Crew identify that there are Spectators infringing the minimum lateral separation from the Display Line, then the Display Crew must either not commence, or discontinue the Air Display

(b) the presence of Secondary Spectators may not automatically require Display Flying to be curtailed or abandoned; Display Crew should use their judgement to assess the risk against the mitigations taken and satisfy MAOs and UAS Operators that risk to Secondary Spectator safety is eliminated, and if not reasonably practicable to eliminate, to minimise risks SFARP

(c) Display Crew should not:

1. weigh observation of Spectators and Secondary Spectators, and consideration of the decision not commence, or discontinue the Air Display, to the detriment of good airmanship

2. unduly divert their attention from achieving and assessing entry gates, height, speed and G-awareness, formation leadership, correct technique, weather decisions, ensuring de-confliction, fuel awareness, etc.

vii. **Airspace Segregation.** MAOs and UAS Operators should ensure Segregation is established in the Display Area.

viii. **Formation Display Flying limitations.** MAOs and UAS Operators should:

(a) prohibit Opposition Manoeuvres involving vectors towards Spectators except as specifically approved by the MAO-AM

(b) ensure that formation Display Flying teams do not:

1. practise new manoeuvres or sequences without MAO-AM approval

2. perform new manoeuvres or sequences in public without MAO-AM approval.

c. **Rehearsal requirements.** Display Crew should rehearse planned and contingency Display Sequences. Display Flying rehearsals should be:

i. documented in OIP to ensure standardised Display Crew preparation

ii. conducted IAW AMC SPA.30(c)1ii.c

iii. flown by the Display Crew that will participate in the Air Display event.

GM SPA.30(c)3iii – Conduct and manoeuvre limitations (AUS)

a. **Briefings and debriefings**. At complex Air Displays, officials (eg ADEO or FDD) should circulate in advance, written Air Display instructions containing all operational information relevant to the Air Display. Officials should supplement the written Air Display instructions with a verbal briefing on the day of the Air Display. Officials should (where feasible) conduct a debrief with participants at the conclusion of the Air Display. The purpose of the debrief is to

determine any safety, organisational or administrative lessons that may impact Aviation Safety at future Air Displays.

b. **Safety calls.** Table 1 includes suggested safety calls that Display Crew, FDD and DFS may use during Display Flying to assist in assessing height and distance, warn of a safety incident (eg minima being breached), or to cease a Display Sequence. Standardising the use of these calls will assist with interoperability during civil and international Air Displays.

Table GM SPA.30(a)3ii-1 – Safety calls

Warning call	**Pilot response**
'(Callsign) too low'	'Roger (callsign)'
'(Callsign) too close'	'Roger (callsign)'
Terminate call	**Pilot response**
'(Callsign) terminate	'Terminate (callsign)'
Knock it off call	**Pilot response**
'(Callsign) knock it off'	'Knock it off (callsign)'

c. The context of safety calls is as follows:

i. **'Too low' call.** The FDD or DFS should make a 'too low' call if they assess that the Display Crew has descended below the minima.

ii. **'Too close' call.** The FDD or DFS should make a 'too close' call if they assess that the Display Crew has breached the minimum lateral separation distance.

iii. **'Terminate' call.** The FDD, DFS or Display Crew should make a 'terminate' call when there is a requirement to suspend a Display Sequence for a reason other than Display Crew competence (eg intruder Aircraft or birds). At the discretion of both the FDD and the Display Crew, the Display Sequence may be resumed if safe to do so.

iv. **'Knock it off' or 'stop' call.** The FDD, DFS or Display Crew should make a 'knock it off' call if safety is compromised. Additionally, the FDD or DFS should make a 'knock it off' call if a third 'too low' or 'too close' call is required. Once a 'knock it off' call has been made, a Display Sequence should not be resumed.

d. If a 'knock it off' call is directed, the FDD or DFS should confirm the Display Crew understands the reason the call has been made, and consider whether:

i. an Aviation Safety Report (ASR) should be submitted

ii. the event should be documented in the post-activity report.

e. **Speed limitations.** MAOs and UAS Operators should consider publishing minimum operating speeds that:

i. provide sufficient margin above the stall (eg 1.3 times the stall speed for the Aircraft configuration)

ii. enable multi-engine fixed-wing Aircraft to climb away, without change of configuration, if the critical engine fails.

f. **Display Lines.** Displaying Aircraft perform relative to Display Lines which provide Display Crew with a visual reference of the safe lateral separation distance from Spectators. Display Crew and officials should consider using obvious ground features (eg runways) to define Display Lines. Where the Display Line cannot be defined by an obvious ground feature, Display Crew or officials should define Display Lines with visual markers or lighting. Once defined, Display Lines should be annotated on a suitable scale map or image which is included in the written Air Display instructions, and briefed to Display Crews on the day of the Air Display. Display Crews or officials should also note other distracting line features (eg parallel taxiways) which might hamper identification of the intended Display Line.

g. **Avoiding Spectator and Secondary Spectator areas.** MAOs and UAS Operators should consider the likelihood of Secondary Spectators gathering outside the designated Spectator Areas, and any effect the Air Display may have on members of the public in the vicinity of the Display Area. MAOs and UAS Operators should consider:

i. areas likely to be occupied by Secondary Spectators

ii. the proximity of major roads, railway lines and local infrastructure and how busy they are likely to be during the event.

h. MAOs and UAS Operators should consider implementing controls to prevent Secondary Spectators gathering in high-risk areas, or if it is not reasonably practical to do so, inform Secondary Spectators of the risk to them.

i. For Air Displays at locations where Spectator Areas (and concentrations of Secondary Spectators) are on, or expected to be on, both sides of the Display Line, the minimum lateral separation distance between the Display Line and the Crowd Line, should apply on both sides of the Display Line.

j. **Officials.** People acting in an official capacity at an Air Display may be required to position between the displaying Aircraft and the Crowd Line. In this case, Display Crew should consider adjusting the Crowd Line to accommodate these exposed officials. Where it is not reasonably practicable to adjust the Crowd Line, officials should be provided a safety briefing to enable appropriate precautions. If on arrival to the Display Area the Display Crew observe officials acting contrary to the safety brief, the Display Crew should cancel or discontinue the Air Display.

k. **Rotor downwash.** DSTG modelling[5] *AB26272152 refers* demonstrates that downwash from a hovering helicopter varies with Aircraft weight, main rotor diameter, disc loading, wind speed, and funnelling and channelling features. Rotor outwash is proportional to downwash, independent of hover altitude and decays with radial distance from the Aircraft. However, the rate of outwash velocity decay varies with wind speed. The DSTG rotor downwash modelling provides additional guidance to define lateral separation distances.

l. **Airspace Segregation.** Ideally, Segregation should exclude all non-participating Aircraft from the Display Area. For example, MAOs and UAS Operators should consider establishing an airspace reservation or temporary restricted area (TRA). However, if this is not reasonably practicable, MAOs and UAS Operators should consider:

i. employing ATS, Airspace Management or Air Traffic Flow Management to ensure there is deconfliction between displaying Aircraft and all other Aircraft in the Display Area

ii. raising a NOTAM and informing all regular airspace users of the Air Display.

m. **Rehearsals.** Rehearsal of the standard manoeuvres and approved Display Sequences reduces Display Crew workload, and increases crew cohesion during Display Flying, collectively improving the ability to mitigate other human performance limitations.

n. All Display Crew should be involved in all Air Display planning and rehearsals. The Display Crew and DFS may consider developing an Air Display rehearsal programme that defines specific requirements and conditions for each rehearsal event based on the Display Crew experience, the type of Air Display, the Display Sequence and the Display Area. The Display Crew and DFS may consider conducting the final rehearsal at the event location without Spectators, to confirm SRM artefacts are appropriate.

iv. emergency response plans (ERP) appropriate to the scale of the event.
▾ GM

GM SPA.30(c)3iv – Emergency response plans (AUS)

a. An ERP is an important requirement for Air Displays, providing documented procedures to be followed in the event of an incident or accident. ERP scope is discussed in DASR SMS. However, the ERP for Air Displays should also include:

   i. the requirements for:

      (a) on-site emergency services; and where there is a need to augment on-site emergency services

      (b) off-site emergency services

   ii. the types of occurrences that may require the cancellation of the event

   iii. the roles, responsibilities and procedures for:

      (a) providing emergency services with the details and locations of incidents or accidents

      (b) controlling accident sites, including those involving multiple accident sites

      (c) controlling HAZMAT incidents and communicating HAZMAT controls

      (d) managing communications—following incidents and accidents—between officials and with Spectators.

b. MAOs and UAS Operators need not develop a discrete Air Display ERP where other ERP (eg base or unit ERP) document procedures to be followed in the event of an incident or accident at an Air Display.

DRAFT DASR UAS.35(f) AND UAS.50(a) FOR FEB 25 DASR RELEASE

STANDARD SCENARIO FOR WEAPONISED UAS EVALUATION

Contents

SECTION 1: NEW DASR UAS.35(f) PART ONLY

The following is a new DASR Part in DASR UAS.35. There are no other changes to the extant DASR UAS.35.

DASR UAS.35(f) – STANDARD SCENARIO FOR WEAPONISED UAS EVALUATION

(f) **Standard Scenario for Weaponised UAS Evaluation** ▸ GM1 ▸ GM2

1. The Standard Scenario for Weaponised UAS evaluation is exclusively for MAO use. ▸ GM

2. MAOs must conduct weaponised UAS operations: ▸ AMC ▸ GM

   i. in an approved deterministic Range Danger Area (RDA) ▸ GM

   ii. in Airspace that excludes all Aircraft except participating UAS ▸ AMC

   iii. that contain the RDA in the Airspace designated for the activity ▸ AMC

   iv. over a Defence Area or beyond Territorial Seas ▸ AMC ▸ GM

   v. with risk controls implemented for MEP ▸ AMC ▸ GM

   vi. with an RP who meets training, qualification and experience requirements defined by the relevant Command ▸ AMC

   vii. crewed by a dedicated RP for each air vehicle

   viii. that enables RP intervention during all stages of the Flight except for Lost Link and during Terminal Guidance. ▸ AMC

SECTION 2: NEW DASR UAS.35(f) PART, AMC and GM

The following is a new DASR Part addition in DASR UAS.35, with its corresponding AMC and GM. AMC in purple text. GM in brown text. There are no other changes to the extant DASR UAS.35.

DASR UAS.35(f) – STANDARD SCENARIO FOR WEAPONISED UAS EVALUATION

(f) **Standard Scenario for Weaponised UAS Evaluation** ▾ GM1 ▾ GM2

GM1 UAS.35(f) – Purpose statement (AUS)

a. **Purpose. (Context)** Evaluation of weaponised UAS is essential to development of Defence UAS capabilities. This standard scenario provides MAOs with a pathway to achieve weaponised UAS assessment objectives without the need for a bespoke DASA approval. **(Hazard)** Inadequate risk management of weaponised UAS may compromise Aviation Safety. **(Defence)** This regulation requires the MAO to implement risk controls to eliminate safety risks SFARP, or where it is not reasonably practicable to eliminate those risks, to otherwise minimise safety risks SFARP.

GM2 UAS.35(f) – External authorities, regulations and policy (AUS)

a. Other authorities, regulations and policies may apply to MAO weaponised UAS activities. Whilst these other elements are not Aviation Safety requirements under this standard scenario, examples that could be applicable include:

i. the Explosive Safety Regulatory Framework (ESRF)—applies to all weapons/devices that contain Explosives

ii. the Defence Test and Evaluation Manual (DTEM)—provides Defence policy for T&E

iii. the Defence Spectrum Office (DSO)—as the Defence authority for radio frequency spectrum allocation

iv. the Defence Security Principles Framework (DSPF)—applies to cyber-related hazards and to the security of Explosives

v. the Directorate of Defence Radiation Safety and Assurance (DRSA) and the Defence Radiation Safety Manual (DRSM)—applies to LASER safety

vi. the Defence Training Area Management Manual (DTAMM)—applies to the management of Defence ranges and associated airspace

vii. Service-specific policy where applicable.

1. The Standard Scenario for Weaponised UAS evaluation is exclusively for MAO use. ▾ GM

GM UAS.35(f)1 – Exclusive MAO use (AUS)

a. This standard scenario is exclusively for MAO use to assure Aviation Safety associated with weaponised UAS by constraining its use to Approved Organisations with effective Flying Management Systems (FMS), Quality Management Systems, and Safety Management Systems.

2. MAOs must conduct weaponised UAS operations: ▾ AMC ▾ GM

AMC UAS.35(f)2 – Risk controls for weaponised UAS operations (AUS)

a. MAOs should implement a combination of technical and operational risk controls in order to eliminate or otherwise minimise risk SFARP when conducting weaponised UAS operations.

b. **Technical risk controls.** Technical risk controls should include:

i. automatic Flight actions upon Lost Link (eg autonomous recovery system, or independent Flight termination (when it is safe to terminate independently))

ii. containment of the UA in the deterministic Range Danger Area (RDA) and the Airspace designated for the activity (eg geo-fencing, tether, minimising battery charge/fuel, programmable maximum and minimum altitude)

iii. the functionality to enable manual termination of Flight by the RP.

c. **Operational risk controls.** Operational risk controls should include:

i. an SOIU IAW DASR ARO.50.A or a Configuration Role and Environment (CRE) document IAW a UAS CRE document template for capturing the weaponised UAS CRE (the Commander (or delegate) may approve the UAS CRE document)

ii. pre-flight checks (including independent verification of Safety Critical data), carried out IAW approved OEM or equivalent procedures, that confirm the configuration and serviceability of:

(1) the UA airframe, control surfaces and propellers/rotor blades

(2) the UA navigation system

(3) the Explosive (including the UA arming and firing systems)

(4) technical risk controls (eg autonomous recovery systems, geo-fencing, altitude and range limiter and on-board camera)

(5) other systems that contribute to Aviation Safety.

iii. approved UA limitations, in a Flight manual or equivalent document for:

(1) datalink limitations (eg range)

(2) weather limitations of the UA (eg not to operate in rain, and wind gust limits)

(3) limitations of technical risk controls (eg limitations of autonomous recovery system, geo-fencing, altitude and range limiter and on-board cameras)

(4) any other design feature that may contribute to Aviation Safety.

iv. procedures to manage Lost Link

v. procedures and limitations for Beyond Visual Line-Of-Sight (BVLOS), reduced visibility and IMC operations

vi. procedures that enable the RP to operate the UAS within its weather limitations (eg obtaining weather forecasts and monitoring weather radars).

vii. handover procedures that enable the RP to perform a handover to another RP (eg checklists, crew coordination and monitoring during handover)

viii. procedures to avoid spectrum conflict and electromagnetic interference (eg coordinating with the Defence Spectrum Office and conducting a Radio Frequency survey for high intensity emitters)

ix. emergency procedures for the following:

(1) Flight termination (including criteria and flight termination sites)

(2) GP intrusion into the operational area

(3) intrusion by another airspace user into the assigned airspace

(4) UA escape from the operational area/assigned airspace (eg alerting GP/MEP, other airspace users and ATC)

(5) Explosive payload malfunction

(6) loss of positive control

(7) unintended UA ground impact

(8) any other reasonably foreseeable event that creates a hazard to GP/MEP, critical infrastructure, or other airspace users.

GM UAS.35(f)2 – Risk Controls for weaponised UAS operations (AUS)

a. The ESRF details additional risk controls applicable to Explosives (eg fuzing systems).

i. in an approved deterministic Range Danger Area (RDA) ▼ GM

GM UAS.35(f)2.i – Range Danger Area (AUS)

a. The Defence Training Area Management Manual (DTAMM) details Defence Range Danger Area policy.

ii. in Airspace that excludes all Aircraft except participating UAS ▼ AMC

AMC UAS.35(f)2.ii – Airspace exclusions (AUS)

a. MAOs must only operate weaponised UAS in Restricted Areas (RA), Military Operating Areas (MOA) or in Airspace beyond Territorial Seas and with due regard to other airspace users.

b. MAOs should document airspace management and de-confliction measures, including:

i. co-ordination and de-confliction of UAS operations with other participating UAS

ii. requirements for communication with the airspace coordination authority, where relevant, as detailed in En Route Supplement Australia (ERSA) or equivalent OIP.

iii. that contain the RDA in the Airspace designated for the activity ▼ AMC

AMC UAS.35(f)2.iii – Safe margins between RDA and designated airspace (AUS)

a. MAOs should establish safe margins between an RDA and the boundary of the Airspace designated for the activity, including consideration of adjacent area activity such as high-density Airspace.

b. MAOs should implement measures to detect and manage inadvertent airspace intrusions. In integrating these measures into the risk management of the weaponised UAS, MAOs should consider:

i. warning and response times

ii. potential closure speeds

iii. their capability to terminate the weaponised UAS activity.

iv. over a Defence Area or beyond Territorial Seas ▾ AMC ▾ GM

AMC UAS.35(f)2.iv – Activity areas (AUS)

a. For an overwater DA and areas outside Territorial Seas, a MAO should:

i. conduct surveillance to detect imminent GP intrusions

ii. terminate the operation before GP enter the area in use.

GM UAS.35(f)2.iv – Activity areas (AUS)

a. The Defence Training Area Management Manual (DTAMM) details the approval processes and requirements for management of activities involving Explosives in DAs.

b. Service-specific policy may apply for areas outside Territorial Seas.

v. with risk controls implemented for MEP ▾ AMC ▾ GM

AMC UAS.35(f)2.v – Safety risks to MEP (AUS)

a. MAOs should incorporate technical risk controls including:

i. highly reliable, fail-safe, mechanical solutions that prevent initiation, launch, activation or arming of the weaponised UA until MEP are outside the RDA or within a protected location (eg for arming, a physical connection that removes a pin during UA launch)

ii. an unambiguous indication of the arming status.

b. MAOs should incorporate operational risk controls that consider the following:

i. location(s) of MEP

ii. normal Flight paths, Lost Link and flight termination trajectories

iii. navigation system accuracy

iv. likely failure modes of the weaponised UAS

v. potential Radio Frequency interference

vi. battery and fuel hazards

vii. geo-fencing

viii. risk recovery controls (eg parachutes and air brakes).

GM UAS.35(f)2.v – Safety risks to MEP (AUS)

a. Advisory Circular 003/2018 *Risk Management in the Defence Aviation Safety Program* provides guidance regarding 'grossly disproportionate' assessments germane to MAO decisions regarding MEP risk exposure.

b. 'Protected location' in AMC UAS.35(f)2.v.a.i refers to any location that prevents harm to personnel from the weaponised UA. Note, 'harm to personnel from the weaponised UA' can include through blast, fragmentation, heat or ballistic effects.

vi. with an RP who meets training, qualification and experience requirements defined by the relevant Command ▼ AMC

AMC UAS.35(f)2.vi – RP training, qualification and experience (AUS)

a. **RP training and management risk controls.** RP training and management risk controls for this standard scenario should include:

i. training that prepares the RP to:

(1) perform the required action/tasks for employing/programming risk controls

(2) perform the required pre-flight checks

(3) operate IAW approved OIP

(4) operate the UA in a way that minimises risk to GP/MEP, critical infrastructure or other airspace users

(5) identify and manage risks unique to the sortie.

ii. emergency procedure training

iii. an RP qualification system that defines the requirements for training and experience.

vii. crewed by a dedicated RP for each air vehicle

viii. that enables RP intervention during all stages of the Flight except for Lost Link and during Terminal Guidance. ▼ AMC

AMC UAS.35(f)2.viii – Intervention by the RP (AUS)

a. Intervention refers to an action, command or input by the RP to dictate the UA responses. MAOs should:

i. ensure the RP can alter the Flight path of the UA, or execute any other suitable actions as necessary, to ensure safe Flight in all situations, except for Lost Link and during Terminal Guidance

ii. eliminate, or if not reasonably practicable to eliminate, minimise the risk to personnel on the ground, critical infrastructure and other airspace users SFARP during Lost Link and the Terminal Guidance phases.

SECTION 3: AMENDED DASR UAS.50(a) PART

The following amends DASR UAS.50(a) to allow for the release of the new DASR UAS.35(f) proposed in Sections 1 and 2. DASR UAS.50(b) remains extant.

DASR UAS.50 – WEAPONISATION AND CARRIAGE OF PASSENGERS

(a) Integration of weapons onto Defence UAS must either: ▸ GM

i. require approval by the Authority, or ▸ GM

ii. operate under the Standard Scenario for weaponised UAS evaluation in DASR UAS.35(f).

SECTION 4: AMENDED DASR UAS.50(a) PART, GM

The following amends DASR UAS.50(a) and its corresponding GM, to allow for the release of the new DASR UAS.35(f) proposed in Sections 1 and 2. GM in brown text. DASR UAS.50(b) remains extant.

DASR UAS.50 – WEAPONISATION AND CARRIAGE OF PASSENGERS

(a) Integration of weapons onto Defence UAS must either: ▼ GM

GM UAS.50(a) – Weaponised UAS (AUS)

a. Any form of Explosive adopted/included/attached to a Defence owned or operated UAS for the purposes of applying a kinetic effect to personnel and/or equipment, is 'weaponised' under DASR.

b. **Purpose.** The purpose of this regulation is to provide additional safety assurance for a weaponised UAS. It provides a Commander two options for weaponised UAS approvals. A Commander may either pursue a DASA approved UASOP; or operate IAW a weaponised UAS standard scenario. The UASOP provides a greater degree of flexibility with a commensurately more rigorous assurance process. Whereas, the standard scenario provides a streamlined approval process enabled by a more constrained set of standard operating conditions.

c. Smoke, flares, and methods of illumination (eg used for Search and Rescue purposes) are not weapons. Note, these items are pyrotechnics and hence, are Explosives—the ESRF applies. The Command/Group remains responsible for ensuring that anything dropped or discharged from a UAS does not pose any undue risk. This includes ensuring the adequate safe carriage of stores to prevent unintentional release and/or discharge of those stores.

i. require approval by the Authority, or ▼ GM

GM UAS.50(a)i – Applicant requirements for Certified or Specific Type A category weaponised UAS (AUS)

a. A Command/Group may only operate weaponised UAS as a Certified or Specific Type A category UAS, after gaining specific DASA approval. Applications for the weaponisation of a UAS should include consideration of:

i. any undue exposure of MEP or the GP to hazards

ii. possible impacts to Airworthiness of the platform as a consequence of subsequent weapon release and/or separation

iii. hazards identified during launch/recovery and/or Flight loads of the UAS/Weapon combination

iv. accuracy, integrity, availability and continuity of service of targeting applications, including any latency of the command and control link

v. the likely risk associated with the application and/or intended mission of the UAS

vi. safety requirements for the use of any laser technology (eg any safety risks associated with laser technology applicable to the UAS requires additional assessment and Command/Group authorisation to operate safely—normal Defence procedures for laser safety clearances apply as per the Defence Radiation Safety Manual).

ii. operate under the Standard Scenario for weaponised UAS evaluation in DASR UAS.35(f).

DRAFT DASR UAS.35(c)1, DASR UAS.35(e)1, and GM2 DASR UAS.10 FOR FEB 25 DASR RELEASE

VARIOUS AMENDMENTS

Contents

SECTION 1: AMENDED DASR UAS.35(c)1 and DASR UAS.35(e)1 PART ONLY

The following amends the DASR Part for DASR UAS.35 (c) and (e) standard scenarios in toto. There are no other changes to the extant DASR UAS.35(c) and (e).

DASR UAS.35(c)1

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1. Operate only in a Restricted Area or Military Operating Area that excludes non-participating Aircraft. ▸ GM

DASR UAS.35(e)1

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1. Operate only in a Restricted Area or Military Operating Area that excludes non-participating Aircraft. ▸ GM

SECTION 2: DRAFT DASR UAS.35(c)1 and DASR UAS.35(e)1 DASR Part and GM

The following amends the DASR Part and corresponding Guidance Material for DASR UAS.35 (c) and (e) standard scenarios in toto. There are no other changes to the extant DASR UAS.35(c) and (e) and GM.

DASR UAS.35(c)1

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1. Operate only in a Restricted Area or Military Operating Area that excludes non-participating Aircraft. ▼ GM

GM UAS.35.C(1) – Restricted Areas and Military Operating Areas (AUS)

Military Operating Areas

1. En Route Supplement Australia (ERSA) or Designated Airspace Handbook (DAH) provide the approval authorities for operations in Restricted Areas (RA) or Military Operating Areas (MOA).

2. MOAs that extend into international airspace are not enforceable under international law. Therefore, Defence cannot prevent foreign airspace users from entering such MOA. However, CASA, through DAH, has clearly communicated to:

   a. Australian Aircraft, that a MOA places the same restrictions on entry (to that Australian Aircraft) that an RA would

   b. foreign registered Aircraft, that:

      (1) Under international law, Australia may not restrict foreign registered Aircraft to enter into a MOA.

      (2) However, to ensure the safe navigation of that foreign registered Aircraft, it should not enter the MOA (without contacting the relevant administering authority).

3. Accordingly, UAS operators may use MOAs as an equivalent hazard control to RAs. Defence is obliged under international law to operate UAS with due regard to other airspace users (*Chicago Convention* Article 3d refers). However, Defence has met its due regard obligations, by constraining any Defence UAS operation (outside Australian territory) to within a MOA.

Foreign areas equivalent to RAs and MOAs

4. UAS operators may use foreign airspace where that airspace provides equivalent hazard control to RAs and MOAs, if approved by the applicable airspace authority.

Non-participating Aircraft

5. Note, if the UAS is contained inside a ROZ—even if that ROZ is within a restricted area that permits non participating aircraft; but the ROZ excludes non-participating aircraft—then the UAS operator has met the intent of DASR UAS.35(c)1.

DASR UAS.35(e)1

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1. Operate only in a Restricted Area or Military Operating Area that excludes non-participating Aircraft. ▼ GM

GM UAS.35.E(1) – Restricted Areas and Military Operating Areas (AUS)

Military Operating Areas

1. En Route Supplement Australia (ERSA) or Designated Airspace Handbook (DAH) provide the approval authorities for operations in Restricted Areas (RA) or Military Operating Areas (MOA).

2. MOAs that extend into international airspace are not enforceable under international law. Therefore, Defence cannot prevent foreign airspace users from entering such MOA. However, CASA, through DAH, has clearly communicated to:

   a. Australian Aircraft, that a MOA places the same restrictions on entry (to that Australian Aircraft) that an RA would

   b. foreign registered Aircraft, that:

      (1) Under international law, Australia may not restrict foreign registered Aircraft to enter into a MOA.

      (2) However, to ensure the safe navigation of that foreign registered Aircraft, it should not enter the MOA (without contacting the relevant administering authority).

3. Accordingly, UAS operators may use MOAs as an equivalent hazard control to RAs. Defence is obliged under international law to operate UAS with due regard to other airspace users (*Chicago Convention* Article 3d refers). However, Defence has met its due regard obligations, by constraining any Defence UAS operation (outside Australian territory) to within a MOA.

Foreign areas equivalent to RAs and MOAs

4. UAS operators may use foreign airspace where that airspace provides equivalent hazard control to RAs and MOAs, if approved by the applicable airspace authority.

Non-participating Aircraft

5. Note, if the UAS is contained inside a ROZ—even if that ROZ is within a restricted area that permits non participating aircraft; but the ROZ excludes non-participating aircraft—then the UAS operator has met the intent of DASR UAS.35(e)1.

SECTION 3: NEW GM2 DASR UAS.10

The following replaces extant Guidance Material for DASR UAS.10 in toto. There are no other changes to the extant DASR UAS.10. Additionally, DASA proposes to delete the extant DASR UAS.80 Part in toto—synchronised with the release of DASR GR.27.

GM2 DASR UAS.10 – APPLICABILITY STATEMENT

GM2 UAS.10 – Applicability (AUS)

a. **DASR UAS applicability**

i. DASR UAS applies to UAS that Defence operate as State Aircraft.

ii. If a UAS is used for Defence purposes and regulated by a Civil Aviation Authority (CAA):

(a) the requirements of DASR UAS.10(a) and (b), and DASR NDR apply

(b) Commands/Groups may interpret DASR AMC NDR.05(a) references to '...or equivalent document' to include the approval granted by the CAA for the UAS operation

(c) Note, UAS operators may not use the flexibility provision presented in DASR GM NDR.10.A to operate the UAS outside the requirements and limitations, including operating areas, imposed by the CAA—unless the Sponsor either applies to the relevant CAA for a dispensation to their regulations, or temporarily operates under DASR UAS. If exercising the latter option, the CAA regulations, requirements and limitations will cease to apply for that period.

(d) DASR UAS.20, DASR UAS.30 and DASR UAS.40 do not apply.

iii. The ESRF regulates hazards specific to explosive materials, which do not include the hazards controlled by DASR UAS. DASR UAS provides regulatory controls for the hazards posed by a UAS to other airspace users; and personnel and critical infrastructure on the ground. Hence, for weaponised UAS, the ESRF regulations and DASR UAS both apply.

b. **DASR UAS non-applicability.** DASR UAS regulations do not apply where a Command/Group sponsors foreign military UAS operations in Australian sovereign airspace. In these circumstances, DASR GR.27 applies.

c. **Applicability of other DASR.** Other DASR apply IAW table 1:

UAS Category	Applicable DASRs
Certified	IAW UAS.20
Specific Type A	IAW a DASA-approved UAS Operating Permit
Specific Type B	Nil (unless operated IAW GM2 UAS.10.a.ii.)
Open	

Table 1. Other applicable DASRs