



DEFENCE AVIATION SAFETY AUTHORITY

NOTICE OF PROPOSED AMENDMENT FOR DASR CHANGE PROPOSAL 2024-035

AMENDMENTS TO DASR 21 FOR INCORPORATION OF OPERATIONAL SUITABILITY DATA (OSD)

INTRODUCTION

References

- A. EMAR 21 Edition 2.0 – *Certification of Military Aircraft and Related Products, Parts and Appliances, and Design and Production Organisations* of 31 Mar 21.
- B. DASR 21 – *Aircraft Design, Production and Certification* of 25 Jul 24.
- C. DASP Manual Volume 3, Chapter 8 *Continuing Airworthiness*.

Applicability

1. This proposal is applicable to applicants for a new Military Type Certificate, Military Type Certificate Holders, Military Design Organisation Approval holders, and organisations involved in the operation, training and configuration management of aircraft.

Purpose

2. The purpose of this Notice of Proposed Amendment (NPA) is to enable community input on the incorporation of Operational Suitability Data (OSD) that was included in the EMAR 21 Ed 2.0 release (Reference A), in particular the implementation of the Master Minimum Equipment List (MMEL) constituent.

3. Under the OSD proposal Military Type Certificate Holders (MTCH) are required to establish certain data that is considered important for safe operation of the aircraft type. This data is approved by DASA during initial certification of the type and maintained by the MTCH through the life of the type for use by operators and training organisations. OSD closes the gap between aircraft design and operations by requiring all necessary information for safe operation of the type to be established and available to operating organisations before entry into service.

4. The proposed amendments are expected to:

- a. Give a mechanism for independent safety assurance of OSD.
- b. Continue the alignment of the DASR with international best practice.

5. The benefits flowing from the proposal are expected to:

- a. Give organisations the flexibility to have OSD approved where available and it adds value.
- b. Allow operators and training organisations to have access to approved data that more closely relates the technical aspects of the type design with operational and training needs.
- c. Ensure consistency and systemic application of the constituent elements through OSD being fully integrated in the type certification process.
- d. Allow for the continued operational suitability of the data as the MTCH monitors operator experience with OSD and makes improvements as necessary during the life of the type.



- e. Reduce potential risk through independent assurance of OSD data.
- f. Allow the Military Air Operator to make informed decisions on the operation of the aircraft with unserviceable equipment. While being incorporated into DASP Manual Volume 3, and referred to within DASR 21, DASR M, and DASR AO.GEN, incorporation of the MMEL into the certification basis is currently voluntary, which does not yield a consistent safety benefit.
- g. Enable efficiency for the operator community in that it provides an upfront, approved data set that the operator can use, without having to make judgements independently from multiple sources.

Background

6. In 2014, EASA published a new certification requirement called Operational Suitability Data. The principle of OSD is that the aircraft manufacturers are required to establish certain data that is considered important for safe operation of the aircraft type. EASA found that a number of accidents and safety related incidents over the decade prior to the introduction of OSD had the same recurring elements as contributing factors to their occurrence. Investigations identified deficiencies in crew training, maintenance training, and the development and use of MMELs as the recurring elements that contributed to those events. Recommendations from investigations to address those deficiencies included EASA improving rules around those elements, which led to the development of OSD and its implementation as a certification requirement in EASA Part-21. The EASA implementation of OSD also included amendments to various operational regulations to mandate the use of such data and the development of Certification Specifications (CS) as the standard for each constituent.

7. OSD was incorporated into EMAR 21 with the EMAR 21 Edition 2.0 release in March 2021. OSD is comprised of the five constituent elements: pilot, aircrew, and maintenance type specific training; simulator qualification; and MMEL.

8. The assurance of safe aircraft operation addresses the hazard of type certified aircraft being introduced into service without formal certification and oversight of the data that enables safe operation of the aircraft beyond what is required in current approved data (i.e. manuals). Where OSD provides unique input is in the specification of the appropriate training, equipment, and data required for safe operation; not just safe flight. This hazard affects all aircraft operators and the wider regulated community, and is currently mitigated through operator policies and procedures.

9. There is currently no independent assurance of the data comprising OSD by DASA; the hazard presented is currently mitigated through operator policies and procedures. This does not necessarily mean that the current self-governance approach taken by the operations community is not working, but it does introduce the potential for risk without independent oversight.

Scope

10. Due to the scope of changes introduced in EMAR 21 Edition 2.0, DASA has taken a phased approach to update DASR 21 (Reference B). As the current mechanisms, safety benefits and affected organisations will vary for each OSD constituent, DASA is continuing a staged approach to incorporate OSD into DASRs.

11. This NPA includes the incorporation of generic OSD requirements into DASR 21, and only implements the MMEL constituent of OSD. Other OSD constituents, and related changes to other parts of DASRs will be considered in future NPAs.

Proposed Amendment(s)

12. The proposed changes to DASR 21 for OSD consist of:
- a. Certification basis and programme is required to include applicable OSD constituents,
 - b. OSD to be provided by applicant for an MTC as part of certification process,
 - c. Changes to OSD to be managed as a change to the type-certificate, and

d. Changes to type design to include assessment of impact to OSD and updates if required.

13. The proposed DASR 21 changes will only require the MMEL constituent of OSD to be included in the certification basis at this stage. MMELs will become approved data which will require monitoring of, and updates to, to ensure suitability is maintained.

14. Annex A provides a summary table outlining the impacted regulations, Acceptable Means of Compliance and Guidance Material clauses. Annex B contains full details of the proposed amendments.

Implementation Strategy

15. The changes detailed in this document are intended to be released in the February 2025 DASR release.

16. DASA does not intend to mandate the application of OSD retrospectively. Organisations that have already obtained a Military Type Certificate or agreed to a Type Certification Basis with DASA prior to 27 Feb 25 will not be required to comply with DASR requirements to retrospectively generate OSD.

17. Organisations seeking to obtain a new Military Type Certificate after the above listed date will be required to submit an OSD Certification Basis (OSD CB) alongside the Type Certification Basis (TCB) demonstrating compliance with the agreed Certification Standard for the development of the type MMEL. DASA will undertake individual consultation with organisations currently undergoing the process of obtaining an MTC to determine if compliance is feasible.

18. Current MTCHs may voluntarily elect to submit an OSD CB to DASA for approval and incorporation of existing or future OSD into the relevant approved type-certificate. MTCHs that elect to do so may choose to submit an OSD CB covering any or all of the five constituent elements that make up OSD. Where OSD becomes an approved part of the type-certificate, the MTCH will be responsible for the continued management of that OSD in accordance with DASR 21 for the life of the type.

19. It should be noted that currently EMAR 21 does not require any organisation to use the OSD, however the safety benefit is achieved when OSD is used by Operators. MMEL OSD provides a certified basis for the development of MELs and their operational use (Reference C).

20. Future work will investigate whether changes to the DASR to make development of, and use of other OSD constituents mandatory is warranted, therefore feedback from the regulated community around the benefit and use of any and all OSD constituents is welcome.

HOW TO SUBMIT COMMENTS ON THIS NPA

Format

21. Responses to this NPA are to be recorded on the NPA Response Sheet included at Annex C.
22. Responses are to be submitted by email to dasa.iarp@defence.gov.au. Hardcopies of the NPA Comment Sheet are not required.

Timing

23. Comments on NPA for DCP 2024-035 are to be forwarded to DASA by close of business 20 December 2024.

Additional Information

24. For additional information concerning this NPA, please contact MR Cameron Clanchy, Initial Airworthiness Regulation Lead, at cameron.clanchy@defence.gov.au.

DISPOSITION OF RESPONSES RECEIVED

25. A Comment Response Document will be prepared and published on the [DASA Website](#). DASA will not individually acknowledge or respond to comments or submissions.

DM GROSSE

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Director of Initial Airworthiness
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24 Nov 24

Annexes:

- A. NPA for DCP 2024-035 - Amendments to DASR 21 for Incorporation of Operational Suitability Data: *Summary of Proposed Changes*
- B. NPA for DCP 2024-035 - Amendments to DASR 21 for Incorporation of Operational Suitability Data: *Proposed Changes*
- C. NPA for DCP 2024-035 - *Response Sheet*

DCP 2024-035 – Amendments to DASR 21 for Incorporation of Operational Suitability Data

Summary of Changes

Table 1 – Overview of Changes to 21.1

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
Nil	21.1(k)	General	New	Inclusion of EMAR definition of the OSD constituents. Deviation from EMAR wording to remove implication that all constituents are to be part of the TC.	Incorporates DASR 21 – wide definition of the OSD constituents. Does not imply all constituents are to be provided as part of the CB, instead provides awareness of the constituents.

Table 2 – Overview of Changes to Subpart A

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
AMC 21.A.4	AMC 21.A.4	Transferring of information on eligibility and approval status from the design organisations to production organisations	Amended	Included operational suitability alongside design data and airworthiness data. Minor readability fixes to increase clarity.	Includes OSD alongside airworthiness and environmental protection data as requiring the described information to be provided alongside the visible statement of approved design data. Consideration of OSD as approved design data.

Table 3 – Overview of Changes to Subpart B

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
AMC 21.A.14(b)	AMC 21.A.14(b)	Alternative procedures	Amended	Inclusion of Operational Suitability Data. Further adjustments to align with EMAR2.0 content, providing additional clarity and guidance.	AMC provided for the demonstration of capability as an alternative to the issuance of an MDOA inclusive of consideration of the provision, assessment, and management of OSD.
21.A.15	21.A.15	Application	Amended	Inclusion of operational suitability data at (d) and supporting references throughout. Inclusion of additional EMAR detail in (b)6 for guidance regarding the LOI within the proposal for assessing CDE.	The OSD certification basis is to be included in the certification programme alongside the initial type-certification basis and environmental protection requirements. This includes its provision alongside the application for a MTC or MRTC, and the extension of the validity of the application.
AMC 21.A.15(b)	AMC 21.A.15(b)	Content of the certification programme	Amended	Inclusion of operational suitability data and supporting references.	Direct specification that the certification programme allows management and control of the product type design and OSD.
AMC 21.A.15(b)(6)	AMC 21.A.15(b)(6)	Level of Involvement	Amended	Inclusion of OSD in LOI determination at CDI level.	The applicant is to demonstrate that all affected elements of the OSD are also to be fully covered by the proposed CDIs.
GM 21.A.15(c)	GM 21.A.15(c)	Updates to the certification programme	Amended	Inclusion of guidance for updating the Certification Programme for changes that affect the OSD CB or the criteria used to assess the likelihood of an unidentified non-compliance with the OSD CB.	The certification programme should be updated and resubmitted following any change to the product design or its characteristics that may affect the criteria used to assess the likelihood of an unidentified non-compliance with the OSD, or any change to the OSD certification basis itself.

Existing DADR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
Nil	GM1 21.A.15(d)	Operational Suitability Data (OSD)	New	Guidance pertaining to the OSD constituents and how they fit in the Application.	Provides clarity on the establishment of the OSD CB, including the applicability of OSD constituents and the basis against which they are defined.
GM 21.A.15(a)	GM2 21.A.15(d)	Application for a Military Type Certificate (cont.) (AUS)	Amended	Changed to green text (Aus specific). Specification of constituents that are not explicitly required under the DASRs, as GM is providing guidance on OSD that is available but not required.	Provides guidance for the use of OSD constituents that are not directly required within the regulations.
AMC1 21.A.15(a)	AMC 21.A.15(d)	Application for approval of Operational Suitability Data (OSD) (AUS)	Amended	Changed to green text and included (AUS) in AMC title. Removed reference to “national regulations”.	Provides Aus-specific AMC requiring the submission of non-mandated OSD constituents as part of the required OSD CB if the OSD is already available.
GM 21.A.15(e) and (f)	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)	Amended	Inclusion of operational suitability data and supporting references.	Ensures uniform treatment of the established TCB, OSD cert basis, and the environmental protection requirements as forming the ‘certification basis’ which remains effective for the maximum period of validity of the application.
21.A.17B	21.A.17B	Operational suitability data certification basis for an aircraft type-certificate or restricted type-certificate (AUS)	New – was reserved	Incorporation of EMAR 21.B.82 into Australian contexts for incorporation of OSD into the DADR requirements.	Requirement for the applicant to establish the OSD CB. The OSD CB is to designate the airworthiness codes for OSD applicable to the aircraft, with possible exceptions to this if the applicant chooses to (or is required to) comply with an airworthiness code applicable after the date of the application; or the Authority accepts or prescribes alternative means to demonstrate compliance.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
Nil	AMC 21.A.17B	Applicable OSD Constituents (AUS)	New	AMC designating the OSD constituents required to be submitted as the OSD CB.	Requires the applicant to develop and submit an OSD CB that includes the listed (not reserved) constituent/s. For other, non-listed constituents, the applicant may voluntarily elect to include the data in the OSD CB for DASA approval. Provides up-front clarity of the obligation to maintain and update the OSD through life of type in the same manner as the TCB.
21.A.20	21.A.20	Demonstration of compliance with the type certification basis, operational suitability data certification basis and environmental protection requirements	Amended	Inclusion of operational suitability data and supporting references.	Introduction of requirement for the applicant to demonstrate compliance with the OSD CB, and declare that it has demonstrated compliance with the OSD CB, as it would have to for the TCB and the (where applicable) environmental protection requirements.
GM 21.A.20	GM 21.A.20	Compliance demonstration process	Amended	Inclusion of OSD within the overarching 'certification basis'	Reference to DASR 21.A.101 as establishing the certification basis consisting of the OSD CB, TCB, and environmental Requirements.
GM1 21.A.20	GM1 21.A.20	Compliance with the type-certification basis, operational suitability data certification basis and environmental protection requirements (where applicable) (AUS)	Amended title	Incorporated OSD into title for consistency with the regulation title.	Increased consistency and readability with GM and regulation title.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
GM2 21.A.20	GM2 21.A.20	Compliance with the type-certification basis, operational suitability data certification basis and environmental protection requirements (where applicable) (AUS)	Amended title	Incorporated OSD into title for consistency with the regulation title.	Increased consistency and readability with GM and regulation title.
AMC 21.A.20(c)	AMC 21.A.20(c)	Compliance documentation	Amended	Inclusion of reference to the operational suitability data certification basis.	Compliance documentation is to be provided for OSD, including a record of the means by which compliance is demonstrated.
21.A.21	21.A.21	Requirements for the issuance of a type-certificate or restricted type-certificate	Amended	Alignment of language to EMAR 2.0 in 21.A.21 a)3.(B). Incorporation of 21.A.21(b).	Regulation permitting exception from 21.A.20 to allow for issuance of the TC before demonstrating full compliance with the OSD CB, provided that the applicant demonstrates compliance prior to that data being used.
Nil	GM 21.A.21(b), 21.A.95(c), 21.A.97(c) and 21.A.115(c)	Approval of operational suitability data (OSD)	New	Incorporation of EMAR GM, providing meaningful information regarding the exception to submitting OSD with the initial application.	Additional guidance pertaining to the exception from demonstrating full compliance with the OSD CB at the time of MTR or MRTC issue, and the conditions under which this exception is acceptable.
GM 21.A.35(b)(2)	GM 21.A.35(b)(2)	Objective and Content of Function and Reliability Testing	Amended	Reference to OSD adopted	Reference to possibility to combine function and reliability testing to demonstrate compliance with the OSD CB, as is possible for the TCB.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
GM 21.A.M42	GM 21.A.M42	Integration	Amended	Incorporation of the OSD CB alongside the TCB and environmental protection requirements.	Consideration of OSD alongside the TCB and environmental protection requirements in the determination of the responsibilities for integration, and ensuring that the aircraft is and remains compliant with the CBs.
21.A.55	21.A.55	Record Keeping	Amended	Inclusion of operational suitability data.	Relevant information and data is to be held by the holder at the disposal of the Authority and retained to ensure the continued validity of the OSD, alongside the continued airworthiness.
21.A.57	21.A.57	Manuals	Amended	Inclusion of operational suitability data.	Manuals required by the OSD are to be produced , maintained, and updated by the holder, equivalent to the manuals required by the TCB and environmental protection requirements.
21.A.62	21.A.62	Availability of operational suitability data	New	Incorporation of DASR 21.A.62 into Australian contexts for incorporation of OSD into the DASR requirements.	Requirement for the holder to make available OSD and any change to the OSD to the described parties under the described circumstances.
Nil	GM 21.A.62, 21.A.108 and 21.A.120B	Availability of Operational Suitability Data	New	Incorporation of EMAR 2.0 guidance material concerning stipulations addressing security laws and intellectual property conditions.	Nil additional burden, provides further guidance regarding security laws and IP conditions in the release of OSD.

Table 4 – Overview of Changes to Subpart D

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
GM 21.A.90A	GM 21.A.90A	Scope	Amended	Addition of OSD	Guidance material pertaining to definitions of ‘changes to the type certificate’, defining OSD as a constituent element of the MTC.
21.A.91	21.A.91	Classification of changes to a type-certificate	Amended	Inclusion of OSD to definition of criteria for minor changes. Provides guidance in determining change type for OSD changes.	Changes to aircraft type certificate are to be classified as major/minor in accordance with the effect on OSD, equivalent to other airworthiness characteristics.
GM 21.A.91	GM 21.A.91	Classification of changes to a Military Type-Certificate	Amended	Inclusion of for guidance of classifying major changes to the MTC. Significant expansion of guidance on the classification of changes to OSD, including details of the Master Minimum Equipment List (MMEL).	No additional burden incurred by this GM alone, provides guidance for defining the change classification for each OSD constituent, and how to conduct the analysis, where required, to make this determination.
21.A.93	21.A.93	Application	Amended	Inclusion of OSD for changes to the operational suitability data.	The certification programme to be submitted in support of an application for a change to type certificate is to consider determination of demonstrating and/or maintaining compliance with the OSD CB, and, where applicable, managing unidentified non-compliances.
Nil	GM1 21.A.93(b)(1)(iii)	Interaction of changes to the type design and changes to operational suitability data (OSD)	New	Incorporation of EMAR GM to provide meaningful guidance on when design changes do not require changes to OSD.	Additional guidance on the classification of changes to type design and changes to OSD. No additional burden incurred by this GM alone.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
Nil	GM2 21.A.93(b)(1)(iii)	Interaction of changes to the type design and changes to the master minimum equipment list (MMEL)	New	Incorporation of EMAR GM to provide meaningful guidance on when design changes will require update to the MMEL.	Additional guidance on the classification of changes to type design and changes to the MMEL. No additional burden incurred by this GM alone.
21.A.95	21.A.95	Requirements for approval of a minor change	Amended	(b)2. is no longer reserved, including EMAR 2.0 content to define when a minor change to the TC will be approved for OSD changes. (d) is no longer reserved, including EMAR 2.0 content to provide exception for approval of the TC prior to demonstrating OSD compliance, if OSD compliance is demonstrated prior to using the data.	Requirement that a change to the TC shall only be approved in when, if affected by the change, it has been demonstrated that the necessary changes to the OSD comply with the OSC CB. Exception from demonstrating full compliance if the OSD is not used prior to full compliance demonstration.
AMC 21.A.95	AMC 21.A.95	Requirements for the approval of a minor change	Amended	(g) is no longer reserved, including EMAR 2.0 content for minor changes regarding OSD.	Reference to GM2 to 21.A.93(b)(1)(iii) for minor changes that affect only the MMEL, permitting the applicant to not conduct a dedicated assessment on the other OSD constituents.
21.A.97	21.A.97	Requirements for approval of a major change	Amended	(b)2. and (c) is no longer reserved, incorporating EMAR 2.0 content for major changes affecting or to OSD.	Compliance with the OSD CB is required to be demonstrated after enacting the necessary changes to the OSD if a change affects the OSD. Exception from full demonstration of compliance permitted if the OSD is not used prior to demonstrating full compliance.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
AMC 21.A.97	AMC 21.A.97	Requirements for the approval of a major change	Amended	2. is no longer reserved, incorporating references to OSD.	AMC provided as reference to demonstrating compliance with 21.A.97, permitting exception from showing full compliance following a major change.
21.A.101	21.A.101	Type-certification basis, operational suitability data certification basis and environmental protection requirements for a major change to a type-certificate	Amended content and title	Inclusion of (g) in accordance with EMAR 2.0 to incorporate OSD requirements regarding establishment of the OSD CB following a major change.	Requires compliance of OSD with the OSD CB to be demonstrated following a major change, as is required for the TCB and environmental protection requirements (where applicable).
GM 21.A.101	GM 21.A.101	Establishing the certification basis of changed aeronautical products	Amended	Inclusion of guidance pertaining to the implementation of 21.A.101(g).	Further guidance provided, changes to the type certificate, and subsequent changes to OSD are to be managed akin to the TCB and env requirements.
Appendix H to GM 21.A.101	Appendix H to GM 21.A.101	Examples of documenting the proposed certification basis list	Amended	Incorporates OSD references to EASA GM for guidance through examples for establishing OSD codes or standards.	No additional burden applied. Further guidance material provided for establishing the applicable OSD codes or standards for the establishment of the OSD CB.
Appendix J to GM 21.A.101	Appendix J to GM 21.A.101	Definitions and terminology	Amended	Inclusion of OSD requirements reference.	Nil, addition of OSD to the overarching definition of 'certification basis'

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
Nil	GM 21.A.101(g)	Establishment of the operational suitability data (OSD) certification basis for changes to type certificates (TCs)	New	Incorporation of EMAR 2.0 GM for guidance regarding the OSD certification basis.	Nil additional burden. Provides guidance on the establishment of the OSD CB in reference to minor/major changes
21.A.105	21.A.105	Record keeping	Amended	Inclusion of record keeping providing information necessary to ensure continued validity of the operational suitability data	OSD records to be maintained as with other airworthiness and environmental records.
Nil	21.A.108	Availability of operational suitability data	New	Inclusion of EMAR 2.0 requirement for the provision of OSD information to the Authority in the case of a minor change that affects OSD.	Minor change approval holders are required to make OSD available to the applicable organisations at the designated times or under the designated conditions.
Nil	GM to 21.A.62, 21.A.108 and 21.A.120B	Availability of Operational Suitability Data	New	Incorporation of EMAR 2.0 guidance material concerning stipulations addressing security laws and intellectual property conditions.	Nil additional burden, provides further guidance regarding security laws and IP conditions in the release of OSD.

Table 5 – Overview of Changes to Subpart E

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
21.A.113	21.A.113	Application for a Military Supplemental Type-certificate	Amended	Inclusion of OSD in (c) for alignment to EMAR 2.0 and additional guidance regarding time limits for the application.	The OSD used to support the application for an MSTC is to be valid and compliant for the duration of the application, as with the TCB and environmental protection requirements.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
21.A.115	21.A.115	Requirements for approval of major changes in the form of a supplemental type certificate	Amended	(b)3 no longer reserved, align with EMAR content for STCs concerning OSD. (c) is no longer reserved, aligning with EMAR2.0 content to permit issuance of an STC without full compliance to the OSD CB being shown, provided that compliance is demonstrated prior to using the OSD.	Necessary changes to the OSD as a result of an STC affecting the OSD are to be made, and compliance retained, for major changes in the form of an STC. Exception from full compliance with the OSD CB is permitted pending full demonstration prior to the OSD being used.
AMC 21.A.115	AMC 21.A.115	Requirements for the approval of major changes in the form of a Military Supplemental Type Certificate (MSTC)	Amended	(b) is no longer reserved, now aligned with EMAR2.0 content containing references to guidance regarding exception for OSD.	Nil additional burden provided by this AMC alone, reference made to other guidance and regulations for enacting the exception from showing full compliance following a major change in the form of an MSTC.
21.A.119	21.A.119	Manuals	Amended	Inclusion of reference to the OSD alongside the TCB and environmental protection requirements.	Manuals in support of an MSTC are to be produced, updated, and maintained as required by the OSD CB, as with the TCB and environmental protection requirements.
21.A.120B	21.A.120B	Availability of operational suitability data	New – was reserved	Inclusion of EMAR 2.0 requirement for the provision of OSD information to the Authority in the case of a change to an STC that affects OSD.	Availability of OSD for an MSTC application following a change affecting the OSD
Nil	GM to 21.A.62, 21.A.108 and 21.A.120B	Availability of Operational Suitability Data	New	Incorporation of EMAR 2.0 guidance material concerning stipulations addressing security laws and intellectual property conditions.	Nil additional burden, provides further guidance regarding security laws and IP conditions in the release of OSD.

Table 6 – Overview of Changes to Subpart J

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
21.A.239	21.A.239	Design assurance system and Safety Management System	Amended	Amendment of a)1 for product designs to comply with the OSD CB IAW EMAR2.0 OSD implementation.	Incorporation of design of the products, parts and appliances, or the design change or repair solution thereof comply with the OSD CB into the SMS, to be treated the same as compliance with the TCB and environmental protection requirements (where applicable).
GM1 21.A.239(a)	GM1 21.A.239(a)	Design assurance system	Amended	Incorporation of references to operational suitability alongside existing references to airworthiness and environmental protection. 3.1.6 no longer reserved, now contains guidance for design assurance for OSD.	OSD to be managed the same as airworthiness and (where applicable) environmental protection within the SMS.
AMC1 21.A.243(a)	AMC1 21.A.243(a)	Handbook (Design Organisation Exposition) requirements	Amended	Incorporation of references to operational suitability alongside existing references to airworthiness and environmental protection. Incorporation of item 16, referring to OSD requirements.	OSD to be managed the same as airworthiness and (where applicable) environmental protection within the MDOE handbook. Description of procedures for the establishment and control of OSD is to be included in the handbook.
GM1 21.A.243(d)	GM1 21.A.243(d)	Statement of qualifications and experience	Amended	Incorporation of references to operational suitability alongside existing references to	Personnel making decisions affecting OSD (alongside airworthiness and environmental protection (where applicable)) are included as persons covered by 21.A.243(d).

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
21.A.245	21.A.245	Approval requirements	Amended	airworthiness and environmental protection.	Staffing is to be sufficient in numbers and experience, with the appropriate authority, to achieve the operational suitability objectives for the product, and there is full and efficient coordination between departments for operational suitability. This is equivalent to current management of airworthiness and, where applicable, environmental protection.
GM1 21.A.245	GM1 21.A.245	Requirements for approval	Amended		Office of airworthiness is established to coordinate operational suitability, alongside airworthiness and, where applicable, environmental protection.
GM2 21.A.245	GM2 21.A.245	Requirements for approval – Organisations designing minor changes to type design or minor repairs to produces	Amended		Persons are to be nominate to liaise with the Authority to coordinate operational suitability matters, alongside airworthiness and, where applicable, environmental protection.
21.A.247	21.A.247	Changes in design assurance system	Amended		Changes to the design assurance system that is significant to the showing of compliance to operational suitability is to be approved by the Authority alongside airworthiness and, where applicable, environmental protection.
GM 21.A.247	GM 21.A.247	Significant changes in the design assurance system	Amended		Additional guidance in the management of OSD, alongside airworthiness and, where applicable, environmental protection, including continued airworthiness and continued operational suitability.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
21.A.251	21.A.251	Terms of approval	Amended		Terms of approval to include identification of functions and duties that the organisation is approved to perform in regard to OSD alongside airworthiness and, where applicable, environmental protection.
AMC1 21.A.263(c)(1)	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	Amended	Incorporation of references to operational suitability alongside existing references to airworthiness and environmental protection. Alignment of language with EMARs in mentioning “type design” in Para 2.5.	The procedure used for the classification of changes should include the effects on operational suitability (alongside airworthiness and, where applicable, environmental protection) from the very beginning, by reference to the applicable requirements.
AMC2 21.A.263(c)(1)	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	Amended	Incorporation of references to operational suitability alongside existing references to airworthiness and environmental protection. Alignment of language with EMAR to increase clarity and readability.	The procedure used for the classification of minor changes should include the effects on operational suitability (alongside airworthiness and, where applicable, environmental protection) from the very beginning, by reference to the applicable requirements.
AMC1 to 21.A.263(c)(5), (8) and (9)	AMC1 to 21.A.263(c)(5), (8) and (9)	Scope and criteria	Amended	Incorporation of references to OSD alongside existing references to airworthiness and environmental protection. Adjustment of requirement reference for environmental protection.	Inclusion of the OSD CB as a ‘requirement’ alongside the TCB and, where applicable, environmental protection requirements.

Existing DASR 21 Reference	DCP 2024-035 Reference	Title	Type of Change	Change and Rationale	Outcome of Change
GM 21.A.265(h)	GM 21.A.265(h)	Designation of data and information issued under the authority of a military design organisation approval (MDOA) holder	Amended	Line item in "2. Scope" no longer reserved, now referring to OSD.	Scope of MDOA data and information now inclusive of OSD.

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 Structural Repair 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. Lol determination at CDI level

The determination of the Authority's Lol 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) and [DASR AMC 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 (Lol), [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 Lol of the Authority.

Following each update to the certification programme as submitted by the applicant, the Authority may update the determination of its Lol in accordance with AMC to DASR 21.A.15(b)(6).

GM 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, 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.

GM 21.A.15(d) - Application for a Military Type Certificate (cont.) (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.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), 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 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. 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. 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):

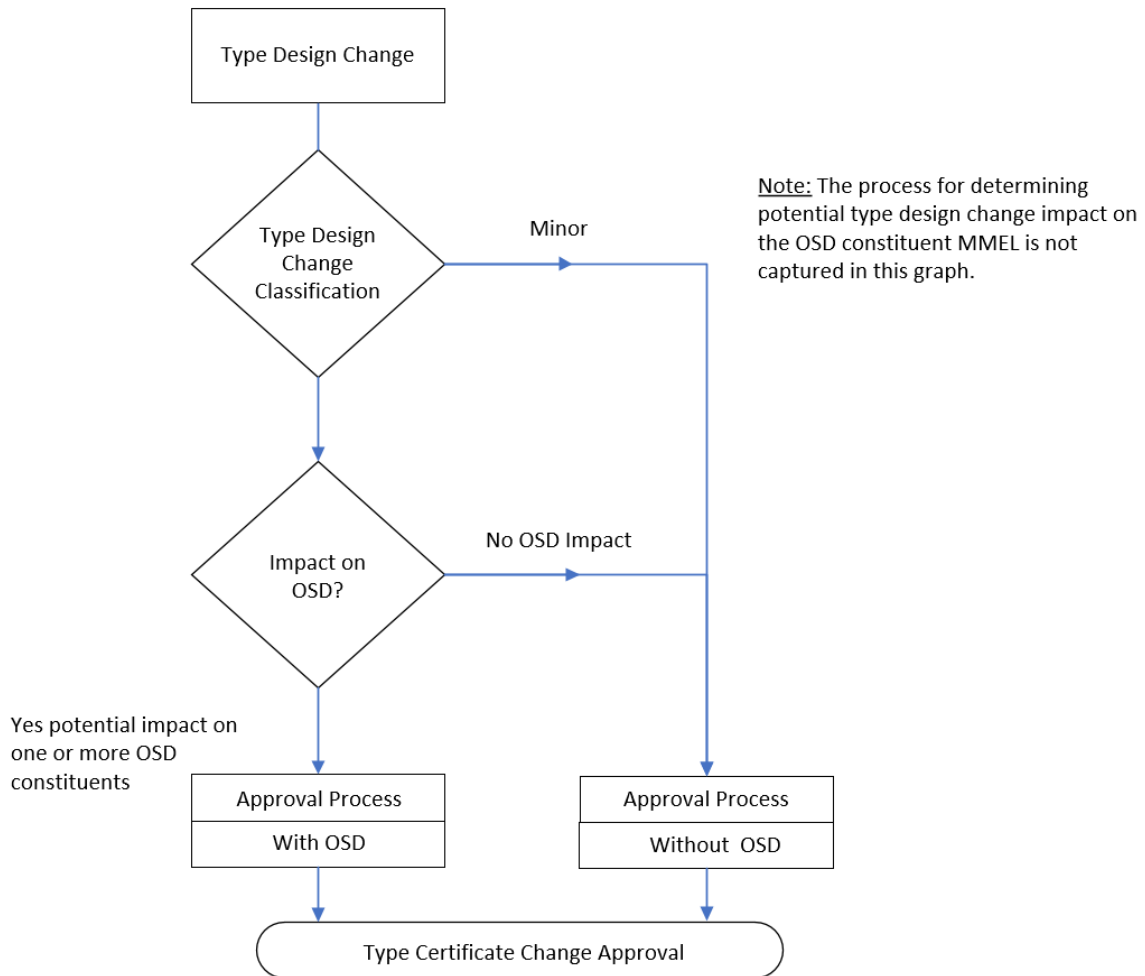


Figure 1

- (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).

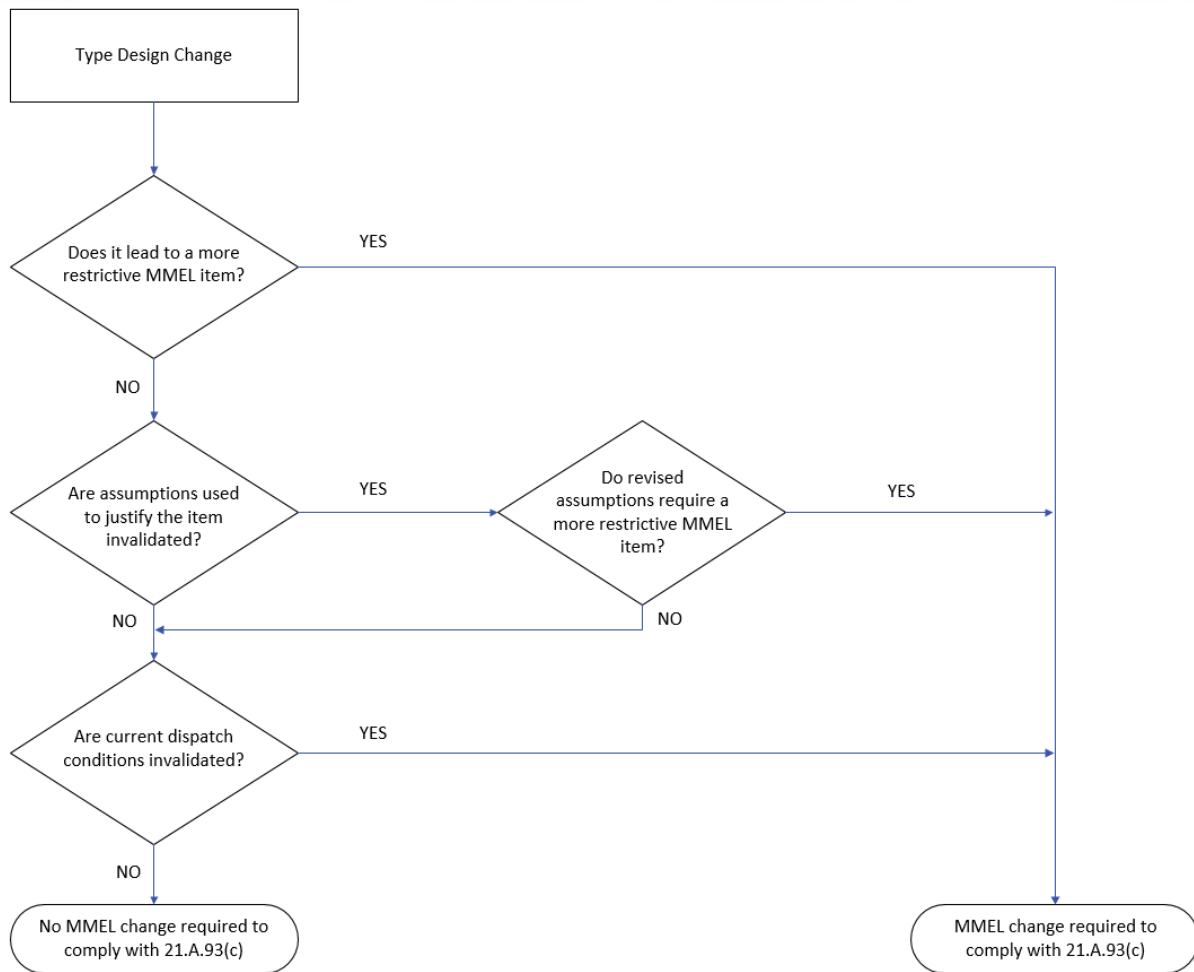


Figure 1

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. ~~When~~ 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. ~~When~~ 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. The applicant has demonstrated its capability in accordance with DASR 21.A.112B;
 2. 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. Compliance with (2) and (3) has been demonstrated in accordance with DASR 21.A.20, as applicable to the change; and
 5. 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.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.

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

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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.

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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.

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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 Aerial Vehicles (UAV) 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.

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 repairs 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:

- 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 AUSMSTSOA 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 AUSMSTSOA 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 requirements (where applicable) as specified in DASR 21.A.18.

...

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 airworthiness (ICAs), 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. 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 (e.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.

NPA FOR DCP 2024-035 Response Sheet

Amendments to DASR 21 for Incorporation of Operational Suitability Data

Please forward this sheet as an email attachment to dasa.iarp@defence.gov.au by 20 Dec 24. A word version of this response sheet can be found via obj no: [BO3960659](#) or alternatively contact [DASA](#).

Please indicate your acceptance or otherwise of this proposal by ticking the appropriate box below. Additional comments, suggested amendments or alternative action are welcome and may be provided on this response sheet or by separate correspondence.

- The proposal is **acceptable without change**.
- The proposal is **acceptable but would be improved if the following changes were made:**
- The proposal is **not acceptable but would be acceptable if the following changes were made:**

LSN	NPA Reference: (i.e Regulation number, NPA paragraph etc)	Comment or suggested change	Explanation
1			
2			
3			
4			
5			

RESOURCE IMPLICATIONS

Please provide specific comment on any significant resource implications that this proposal may have for your organisation, for both its implementation and ongoing compliance. Your comments should address both financial and human resource considerations.

Resource implications – Proposal implementation	
Resource implications – Proposal sustainment	

RESPONDENT DETAILS

Your name:	
Submission date:	
Your organisation:	
Email address:	
Postal address:	
Phone:	
Whose views are represented in your response? i.e. Is your response the authoritative response from your organisation?	Responding on behalf of : Individual [<input type="checkbox"/>] Regulated Military entity [<input type="checkbox"/>] Regulated Commercial entity [<input type="checkbox"/>] Wing HQ [<input type="checkbox"/>] Group HQ [<input type="checkbox"/>] ADF Regulatory, Technical or Logistics policy agency [<input type="checkbox"/>] Other commercial entity [<input type="checkbox"/>], Other [<input type="checkbox"/>] Please describe:
Do you consent to your name being published as an NPA respondent within the NPA Summary of Responses:	YES [<input type="checkbox"/>] NO [<input type="checkbox"/>]

