RECORD OF CHANGE – DASR RELEASE 31 Jul 2025

1. This document records all changes to the Defence Aviation Safety Regulation (DASR) introduced in the 31 Jul 25 release. An overview of noteworthy changes is available in the Notification of Change (BP50596672).

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

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

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

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

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

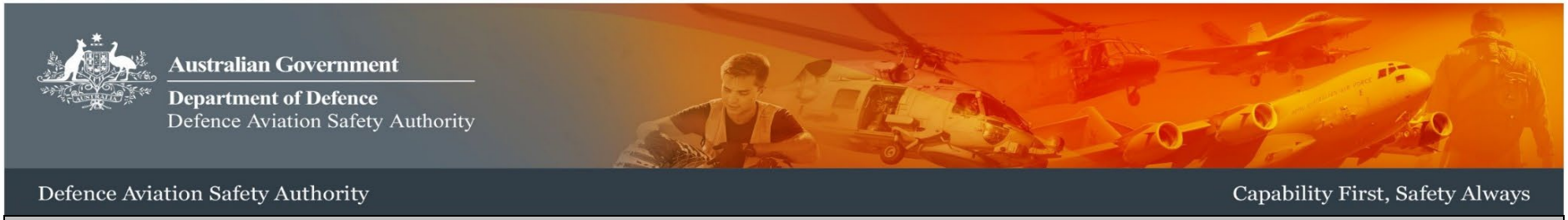
Table 1. Change classifications and colour coding

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

Table 2. Index of changes

Short Title (DCP Reference)	Amendment Record	Change Classification	DASR Clause
General			
Terminology change of 'Findings' to provide contemporary, fit for purpose definitions. (DCP-0024)	See Below	Major	GR.60
Various DASR Glossary changes. (DCP 2025-003)	See Below	Minor	DASR Glossary
DASR FSTD – Flight Simulation Training Devices			
Terminology change to 'Evaluation Team' to align with contemporary CAA/NAA terminology. (DCP 2025 - 002)	See Below	Editorial	AMC FSTD.05.B
DASR 139 – Aerodromes			
Addition of AMC in relation to Shipborn Heliports. (DCP 2024 – 022)	See Below	Minor	DASR 139.50
DASR ANSP – Air Navigation Service Providers			
Insert additional phrases in GM ANSP.80(a) a. to clarify the intent of the regulation. (DCP-0026)	See Below	Minor	GM ANSP.80(a) a.

Terminology change from ‘Civil Air Operator Chief Pilot’ to ‘Civil Air Operator Head of Flying Operations’ to align with contemporary CASR terminology. (DCP 2024 – 038)	See Below	Editorial	GM ANSP.60.B.c.i
DASR Various – 21, M and 145			
References to 'participating member state', 'participating military state', and 'pMS' that exist within the DASR regulation, AMC and GM within Part 21, M and 145 have been removed or replaced. (DCP-0028)	See Below	Minor	DASR GM1 M.A.201(a) paragraph 2 DASR M.A.702(b)2 DASR M.A.708(b)2 DASR M.A.711(d) DASR AMC 145.A.30(f) DASR AMC 145.A.70 - PART 1 DASR 21.1(a)2 DASR Acronyms
Clarification of requirement of Form 4 for acting Form 4 duties in various AMC. (DCP-0029)	See Below	Minor	AMC M.A.706 AMC 145.A.30
DASR M – Continuing Airworthiness Management			
Removal of all information in regards to ‘Findings’ to GR.60 – Oversight and Enforcement. (DCP-0033)	See Below	Editorial	DASR M.A.905
DASR 21 – Aircraft Design, Production & Certification			
Wording amendment in AMC 21.A.253 (DCP 2025-0037)	See Below	Editorial	AMC 21.A.253
DASR UAS – Uncrewed Aircraft Systems			
Addition of Standard Scenarios to DASR UAS.35.G. (DCP-0036)	See Below	Major	DASR UAS.35.G



DASR AMENDMENT RECORD
DCP 2025-002

DASR CLAUSE: AMC FSTD.05B

RATIONALE FOR CHANGE

To align DASR FSTD terminology of the entity that evaluates an FSTD to determine its Qualification level, with DASA-recognised CAA/MAA FSTD terminology. Additionally, the proposed change identifies the mechanism through which DASA approves Evaluation Teams.

Two editorial changes are proposed:
1. correctly numbering AMC FSTD.05.B
2. amending the first sentence of (renumbered) AMC FSTD.05.B(5) to read 'FSTD are qualified against recognised CAA standards, by an Evaluation Team approved by DASA through the submission of DASR Form 160.'

CURRENT REGULATION TEXT

FSTD Qualification

FSTD are qualified against recognised CAA standards, by a Qualification organisation approved by the Authority. FSTD Qualification comprises an Initial Evaluation, which produces a Master Qualification Test Guide (MQTG) that documents the results of all the qualification tests. All CAA Qualification standards contain mandatory FSTD reassessment periods against its MQTG.

5. **Full Flight Simulators (FFS) Qualification.** The MAO should …

REVISED REGULATION TEXT

FSTD Qualification

5. FSTD are qualified against recognised CAA standards, by an Evaluation Team approved by DASA using DASR Form 160. FSTD Qualification comprises an Initial Evaluation, which produces a Master Qualification Test Guide (MQTG) that documents the results of all the qualification tests. All CAA Qualification standards contain mandatory FSTD reassessment periods against its MQTG.

6. **Full Flight Simulators (FFS) Qualification.** The MAO should …

AMC2 139.50 – Shipborne Heliport Aerodrome Manual (AUS)

1. An aerodrome manual is an integral part of the Aerodrome Operator (AD OPR) approval and aerodrome certification process.

2. For a Shipborne Heliport, the AD OPR may publish required aerodrome manual content in other OIP in lieu of a standalone aerodrome manual. Where AD OPR use other OIP to publish aerodrome manual content, an aerodrome manual compliance matrix must provide a reference to all required aerodrome manual content (as listed at paras 4 – 16)— demonstrating evidence of Aerodrome manual compliance.

3. The development of the aerodrome manual should provide sufficient coverage of procedures, plans and essential information to support safe aviation operations. The following paragraphs integrate MOS 139 and Defence-specific manual content to detail required aerodrome manual content in the shipborne heliport environment.

AERODROME MANUAL CONTENT

4. Organisation and management structure that applies to the Heliport.

5. Shipborne Heliport list of relevant management positions responsible for the operation and maintenance of the Heliport, including the Aerodrome Operator.

6. The Shipborne Heliport certification basis and any non-compliances or limitations with the Heliport certification basis and/or design standards.

7. Operational information requirements such as:

    a. general, including the:

        i ship class, name and hull number

        ii helicopter deck-strength (lbs/kg) and landing/movement area dimensions

        iii deck height above water-line, maximum height of ship structure (mast height)

    b. physical description of the Heliport and supporting structure including markings and location of any obstructions

    c. operational capability of the Heliport including certified level and class, limitations and cross deck operational procedures

    d. visual aid systems information, such as Heliport lighting, approach and obstruction lighting, deck status indicators, visual glide slope indication and horizontal reference systems, night vision capabilities, and any visual docking system used for Heliport management

    e. available Heliport facilities and services, such as deck handling and mooring aids (lashings, securing fittings, RAST/ASIST), hangar and maintenance services, on-deck and HIFR refuelling, aircraft power

f. details of navigation aids, radar and communication systems associated with the ship

g. considerations for operations to the ship by non-Defence aircraft (i.e for a MEDEVAC).

8. Heliport rescue and fire fighting (HRFF) requirements:

a. documented procedures for the HRFF services available for the preservation of life and materiel in the event of an aircraft accident or incident

b. operating constraints, eg rescue response for aircraft ditching

c. emergency access routes and optimum time frames for response

d. compliance to operating and technical standards

e. available crash rescue boats and rescue equipment.

9. Emergency procedures.

a. Emergency procedures are the critical procedures that outline key requirements to support the safe management of aircraft emergencies and/or accidents at the certified Heliport (eg Aerodrome emergency plan and specific emergency OIP).

b. Emergency procedures should cover the following situations:

i emergency recoveries/precautionary landing

ii emergency recoveries using NVD

iii recoveries of helicopters with damaged or malfunctioning systems

iv crash on deck considerations.

10. Obstruction Data Coverage.

a. Ship's organic obstacles that have an impact to safety of flight are to be documented (i.e. Obstruction Clearance Checklist) and managed regularly to ensure safe operations and continuing compliance to the ship's certification basis.

b. An obstruction is defined in the ship context as any fixed or mobile (whether temporary or permanent) objects that may:

i be located on an area intended for the surface movement of aircraft (i.e. Flight Deck), or

ii encroach into defined (aircraft specific) clearance envelopes for launch, departure, approach and recovery.

11. Foreign Object Debris (FOD) prevention program.

12. Shipborne Heliport serviceability and technical inspection requirements:

a. Shipborne Heliport serviceability inspections should be carried out to ensure the aerodrome remains in a condition to support safe flight operations.

b. A Shipborne Heliport Serviceability Inspection should be conducted before the first daily aircraft movement to determine any foreign object debris (FOD), issues with visual aids and to identify any hazards. If the first aircraft movement is to occur before first light; as a minimum the key safety critical elements of the inspection should occur. The remainder of the inspection should be carried out as sufficient daylight then becomes available.

c. Other periods when shipborne Heliport serviceability inspections may be carried out include:

i immediately before last light (if night flying)

ii periodically to review all aerodrome support structure for integrity issues and visibility status of markings

iii other times when the Heliport has a configuration change

iv when directed to do so by the Authority.

d. Shipborne Heliport technical inspections (SHTI) content and periodicity:

i For Defence certified shipborne Heliports, an Aerodrome Operator may propose to the Authority a periodicity of SHTI that takes into account the risk to safe operations and unique military context of operations to the particular class of ship and facilities provided; or

ii When directed to do so by the Authority.

e. Personnel competencies for the conduct of shipborne Heliport serviceability inspections and technical inspections:

i The Aerodrome Operator is to ensure that a person or persons with the relevant technical qualifications and experience, or a demonstrable level of relevant technical experience conduct shipborne Heliport serviceability inspections and SHTI.

13. Description of aerodrome areas that may include:

a. potential or known hazards

b. location of services (fuelling, securing, earthing, HIFR, control stations, flight deck access points)

c. visual approach and landing aids

d. shipborne Heliport boundaries/landing and movement areas

e. movement and parking restrictions

f. VERTREP and transfer locations

g. ordnance loading areas.

14. Changes to Defence shipborne Heliport Orders Instructions and Publications (OIP):

a. Processes for the amendment and approval of shipborne Heliport OIP should be included in the Aerodrome manual.

15. Shipborne Heliport works safety:

a. An Aerodrome manual should contain the procedures for planning, and safely carrying out, shipborne Heliport upkeep, upgrade and update works for:

i de-conflicting between flying operations and aerodrome works to ensure safe aviation operations

ii notifying aircraft operators and other Heliport users of the aerodrome works and associated constraints

iii carrying out time-limited or emergency works and communicating with FLYCO (if applicable) and aircraft while works are being carried out.

16. Any deviation from the aerodrome manual must be approved by the Aerodrome Operator, recorded and readily available to the Authority on request.

ANNUAL REVIEW

17. The aerodrome manual should be reviewed annually as it provides essential day-to-day shipborne Heliport operational and technical information. Unless a substantial procedural or materiel change occurs that requires an amendment to the aerodrome manual, there is no need to request a review by the Authority due to the change. An example of substantial change would be introduction of a new NAVAID, removal of an existing NAVAID or a change to any certification requirements for an approved aircraft category.

18. Should substantial change occur, the Authority review process of an aerodrome manual provides assurance that the Aerodrome Operator has managed the amendment of the manual as per approved procedures and will endorse (or not) the aerodrome manual change. This will ensure that the Aerodrome Operator continues to provide the required oversight so that Defence aviation is receiving the expected aerodrome service.

DASR AMENDMENT RECORD
DCP 2024

DASR CLAUSE: GR.60(d)

RATIONALE FOR CHANGE

An action out of recent O&E activities and confirmed within the O&E CoP meeting earlier this year, a need to amend the current definitions of Findings to provide contemporary, fit for purpose definitions.

CURRENT REGULATION TEXT

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

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

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

REVISED REGULATION TEXT

(1) **Level 1 Finding:** Any non-compliance with a DASR requirement that presents a credible serious hazard to aviation safety and no organisational safety controls remain in place or the organisational safety controls in place are not effective to treat the hazard.

(2) **Level 2 Finding:** Any non-compliance with a DASR requirement that presents a credible hazard to aviation safety and organisational safety controls remain but the total effectiveness is minimal to treat the hazard.

(3) **Level 3 Finding:** Any non-compliance or potential problem that, if left untreated, would likely manifest into a credible hazard to aviation safety.

DASR AMENDMENT RECORD
DCP 2024

DASR CLAUSE: GM GR.60(d)

RATIONALE FOR CHANGE

An action out of recent O&E activities and confirmed within the O&E CoP meeting earlier this year, a need to amend the current definitions of Findings to provide contemporary, fit for purpose definitions in GR.60(d). Therefore the GM is to be updated with the new definitions.

CURRENT GM TEXT

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

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

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

    c. DASR 147 Level 3 Finding – A non-compliance, or potential problem, that 'could lower the safety standard and possibly hazard flight safety' in a DASR 147 environment would result from a minor failure of a training product or minor failure to comply with training governance requirements. Examples might include minor errors in documentation or minor procedural deviations that if left untreated could manifest into a lowering of safety standards, or a minor failure to achieve training governance requirements.

REVISED GM TEXT

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

    a. **Level 1 Finding:** would result from a failure of a training product that directly degrades training outcomes impacting Aviation Safety. Examples might include a failure to follow established training procedures that have a direct impact on training outcomes, significant deviation from approved training courseware, significant unapproved changes to the training organisation, or awarding training outcomes that have not been fully achieved.

    b. **Level 2 Finding:** would result from a failure of a training product, or a significant failure to comply with training governance requirements, that has the possibility to degrade training outcomes impacting Aviation Safety. Examples might include a deviation in training processes that impacts training outcomes, not effectively monitoring training standards, or a deviation from approved training courseware that that would likely impact Aviation Safety.

    c. **Level 3 Finding:** would result from a failure of a training product or failure to comply with training governance requirements that would likely manifest into a credible hazard to aviation safety. Examples might include minor errors in documentation or minor procedural deviations that, if left untreated, could lower safety standards or reduce effectiveness of training governance.

DASR AMENDMENT RECORD
DCP - 0026

DASR CLAUSE: GM ANSP.80(a)

RATIONALE FOR CHANGE

Regulated community feedback indicated that GM ANSP.80(a) required more clarity regarding which ANSP personnel are subject to the requirements of DASR ANSP.80.

CURRENT REGULATION TEXT

a. **Purpose. (Context)** The safe delivery of ANS is supported by knowledge, skills and behaviours benchmarked against contemporary training and learning standards. **(Hazard)** Undesired ANS personnel knowledge, skills and behaviours can affect the safe delivery of ANS and compromise Aviation Safety. **(Defence)** This regulation requires an ANSP-AM to establish qualification and competency-based training systems to:

i. ensure ANSP personnel are adequately trained and authorised to perform their specified duties
ii. provide ANSP personnel with the requisite knowledge and skills to support the desired behaviours for safe ANS provision
iii. actively monitor and correct knowledge, skills and behaviours in ANSP personnel, to ensure that the required standards are maintained.

REVISED REGULATION TEXT

a. **Purpose. (Context)** The safe delivery of ANS is supported by knowledge, skills and behaviours benchmarked against contemporary training and learning standards. **(Hazard)** Undesired ANS personnel knowledge, skills and behaviours can affect the safe delivery of ANS and compromise Aviation Safety. **(Defence)** This regulation requires an ANSP-AM to establish qualification and competency-based training systems to:

i. ensure ANSP personnel who contribute to ANS provision are adequately trained and authorised to perform their specified duties
ii. provide ANSP personnel with the requisite knowledge and skills to support the desired behaviours for safe ANS provision
iii. actively monitor and correct knowledge, skills and behaviours in ANSP personnel, to ensure that the required standards for safe ANS provision are maintained.

DASR AMENDMENT RECORD
DCP - 0028

DASR CLAUSE: GM1 M.A.201(a) paragraph 2

RATIONALE FOR CHANGE

EMAR uses the term ‘participating Member State (pMS)’ which refers to the current 27 European States of the European Union. This term is not applicable to DASR. The term pMS to be replaced with “relevant ~~authority~~service”.

Removal of the term ‘participating Member State (pMS)’ does not change the intent of regulation, AMC or GM but clarifies DASR by removing a term that is not applicable.

CURRENT GM TEXT

2. The force structure may be a Flight, Squadron, Wing, Command or other organisation as determined by the pMS.

REVISED GM TEXT

2. The force structure may be a Flight, Squadron, Wing, Command or other organisation as determined by the relevant service.

DASR AMENDMENT RECORD
DCP - 0028

DASR CLAUSE: M.A.702(b)2

RATIONALE FOR CHANGE

EMAR uses the term ‘participating Member State (pMS)’ which refers to the current 27 European States of the European Union. This term is not applicable to DASR and should be removed.

Removal of the term ‘participating Member State (pMS)’ does not change the intent of regulation, AMC or GM but clarifies DASR by removing a term that is not applicable.

CURRENT REGULATION TEXT

(b)2. the Operating Organisation’s Aircraft Maintenance Programmes (only if the participating Member State (pMS) requires the CAMO to develop and control the AMP for the aircraft managed); and

REVISED REGULATION TEXT

(b)2. the Operating Organisation’s Aircraft Maintenance Programmes (where the MAA requires the CAMO to develop and control the AMP for the aircraft managed) and

DASR AMENDMENT RECORD
DCP - 0028

DASR CLAUSE: M.A.708(b)2

RATIONALE FOR CHANGE

EMAR uses the term ‘participating Member State (pMS)’ which refers to the current 27 European States of the European Union. This term is not applicable to DASR and should be replaced with MAA.

Removal of the term ‘participating Member State (pMS)’ does not change the intent of regulation, AMC or GM but clarifies DASR by removing a term that is not applicable.

CURRENT REGULATION TEXT

(b)2. if required by the pMS:

REVISED REGULATION TEXT

(b)2. if required by the MAA:

DASR AMENDMENT RECORD
DCP - 0028

DASR CLAUSE: M.A.711(d)

RATIONALE FOR CHANGE

EMAR uses the term ‘participating Member State (pMS)’ which refers to the current 27 European States of the European Union. This term is not applicable to DASR and should be replaced with MAA.

Removal of the term ‘participating Member State (pMS)’ does not change the intent of regulation, AMC or GM but clarifies DASR by removing a term that is not applicable.

CURRENT REGULATION TEXT

(d) A CAMO may, if required by pMS according to DASR M.A.708(b)2, develop and control the DASR M.A.302 AMPs, including any applicable reliability programme for any aircraft listed on the approval certificate.

REVISED REGULATION TEXT

(d) A CAMO may, if required by the MAA according to DASR M.A.708(b)2, develop and control the DASR M.A.302 AMPs, including any applicable reliability programme for any aircraft listed on the approval certificate.

DASR AMENDMENT RECORD
DCP - 0028

DASR CLAUSE: AMC 145.A.30(f) paragraph 4

RATIONALE FOR CHANGE

EMAR uses the term 'participating Member State (pMS)' which refers to the current 27 European States of the European Union. This term is not applicable to DASR and should be removed.

It is proposed to remove 'In the absence of a national aerospace NDT board, the aerospace NDT board of another pMS should be used, as defined by the MAA.', The term pMS is not applicable to DASR and DASR has green text sub paragraph, 145.A.130(f)(4)(a) which provides a DASA specified manner for the conduct and/or oversight of NDT examinations. The exception language is removed as it is not relevant. The word 'Authority' is also replaced with DASA.

CURRENT AMC TEXT

4. Notwithstanding the general references in EN 4179 to a national aerospace non-destructive testing (NDT) board, all examinations should be conducted by personnel or organisations under the general control of such a board or as specified by the MAA. In the absence of a national aerospace NDT board, the aerospace NDT board of another pMS should be used, as defined by the MAA.

a. By way of exception to paragraph 4, the conduct and/or oversight of NDT examinations can be performed by an Authority approved (DASR Form 4) NDT Responsible Level 3 appointment holder, without being under the general control of a national aerospace NDT board.

REVISED AMC TEXT

4. Notwithstanding the general references in EN 4179 to a national aerospace non-destructive testing (NDT) board, all examinations should be conducted by personnel or organisations under the general control of such a board or as specified by the MAA.

a. The conduct and/or oversight of NDT examinations can be performed by a DASA approved (DASR Form 4) NDT Responsible Level 3 appointment holder, without being under the general control of a national aerospace NDT board.

DASR AMENDMENT RECORD
DCP - 0028

DASR CLAUSE: Appendix V to AMC 145.A.70 - PART 1 – MANAGEMENT

RATIONALE FOR CHANGE

EMAR uses the term 'participating Member State (pMS)' which refers to the current 27 European States of the European Union. This term is not applicable to DASR and should be removed.

Removal of the term 'participating Member State (pMS)' does not change the intent of regulation, AMC or GM but clarifies DASR by removing a term that is not relevant.

Amend Note at the bottom of the page.

CURRENT APPENDIX TEXT

PART 1 – MANAGEMENT
1.1 **Corporate commitment by the Accountable Manager.**

NOTE: *Where it states (MAA*) please insert the actual name of the pMS' MAA, for example, MAA, DSAE, etc.*

REVISED REGULATION TEXT

PART 1 – MANAGEMENT
1.1 Corporate commitment by the Accountable Manager.

NOTE: *Where it states (MAA*) please insert the actual name of the MAA, for example, DASA.*

DASR AMENDMENT RECORD
DCP - 0028

DASR CLAUSE: DASR 21.1(a)2

RATIONALE FOR CHANGE

EMAR uses the term 'participating Member State (pMS)' which refers to the current 27 European States of the European Union. This term is not applicable to DASR and should be removed.

Removal of the term 'participating Member State (pMS)' does not change the intent of regulation, AMC or GM but clarifies DASR by removing a term that is not relevant.

CURRENT REGULATION TEXT

2. By way of exception from point 1, an organisation whose principal place of business is in a non-participating Member State, or where a participating Member State (pMS) has not yet transposed EMAR 21 in their national military airworthiness regulations, may demonstrate its capability by holding a certificate or similar approval issued by an authority of that State for the product, part and appliance for which it applies, provided:

i. that State is providing oversight as State of Design; and

ii. through Recognition (EMAD–R) it can be determined, that the national airworthiness system of that State includes the same independent level of checking of compliance as provided by DASR 21, either through an equivalent system of approvals of organisations or through direct involvement of the authority of that State.

REVISED REGULATION TEXT

2. By way of exception from point 1, an organisation whose principal place of business is in a State that has not transposed EMAR 21 in their national military airworthiness regulations, may demonstrate its capability by holding a relevant certificate or similar approval issued by an authority of that State for the product, part, and appliance for which it applies, provided:
   i. that State is providing oversight as State of Design; and
   ii. through Recognition (EMAD–R) it can be determined, that the national airworthiness system of that State includes the same independent level of checking of compliance as provided by DASR 21, either through an equivalent system of approvals of organisations or through direct involvement of the authority of that State.

DASR AMENDMENT RECORD

DCP - 0028

DASR Acronyms

RATIONALE FOR CHANGE

Removal of participating Member State (pMS) from regulation, AMC and GM means there is no need for pMS to be in the DASR Acronyms list.

CURRENT ACRONYM ENTRY

pMS participating Member State

REVISED ACRONYM ENTRY

Delete acronym entry in toto.

Australian Government
Department of Defence
Defence Aviation Safety Authority

Defence Aviation Safety Authority

DASR AMENDMENT RECORD
DCP 2024 – 034

DASR CLAUSE: AMC 145.A.30

RATIONALE FOR CHANGE

AMC has been revised to remove repetitive content and to clarify when a Form 4 is needed and to highlight the importance of succession planning to ensure personnel are always appointed to key management positions, and there is no period (including during posting cycles) when no one is appointed to fulfil these duties. The description of 'Deputy' nominated management personnel was found to be confusing / prescriptive and has been replaced with outcome-based language on succession planning. The AMC will also align with the proposed change to AMC M.A.706 and AMC 147.A.105(b). Paragraphs relating to the Accountable Manager, Nominated Personnel and Other managers do not need to be retained as they repeat the 145.A.30(a) regulation and other AMC text. Paragraphs numbers added and heading updated.

CURRENT AMC TEXT

Current heading
AMC 145.A.30 - Management Personnel (AUS)

Management Personnel are classified as follows:

The ACCOUNTABLE MANAGER (AM) (DASR 145.A.30(a)) is the person with the corporate authority to ensure that all maintenance required can be financed and carried out to the standard required by DASR 145.

The Nominated Personnel (DASR 145.A.30(b) and DASR 145.A.30(c))* shall be the group of personnel (or person) responsible for ensuring that the maintenance organisation complies with DASR 145. In any case these personnel should report to the Accountable Manager. This (ese) manager(s) may assign DASR 145 functions to other manager(s) working directly under their respective responsibility. In this case the nominated personnel (person) remains responsible for compliance with DASR 145.

The Deputy Nominated Personnel (DASR 145.A.30(b)(4) shall be the group of personnel (or persons) who are nominated via DASR Form 4 to deputise any particular nominated personnel in case of lengthy absence of the said person. The deputy nominated person is responsible for compliance with DASR 145 upon formal notification from the nominated person for the duration of the nominated persons absence.

CURRENT AMC TEXT (continued)

Other Manager(s) (DASR AMC 145.A.30(b)(8) Depending either on the size of the maintenance organisation or on the decision of the Accountable Manager, the maintenance organisation may appoint additional managers for any DASR 145 function(s). This (ese) manager(s) shall report ultimately to the nominated personnel identified to be responsible for the related DASR 145 function(s) and therefore by definition are not to be considered themselves as nominated personnel. As a consequence a manager can be only assigned duties (not responsibilities) of the nominated personnel to whom they report.

The Responsible NDT Level III shall be the person designated by the maintenance organisation to ensure that personnel who carry out and/or control a continued airworthiness non-destructive test of aircraft structures and/or components are appropriately qualified for the particular non-destructive test in accordance with the European or equivalent Standard recognised by DASA.

Management personnel requiring a DASR Form 4. Based on the above definitions of management personnel, the following table summarises when a DASR Form 4 is required in order for the management personnel to be acceptable to DASA.

MANAGEMENT PERSONNEL	DASR Form 4 Required	DASR Form 4 Not Required
Accountable Manager (DASR 145.A.30(a))		X
Nominated Personnel (Responsible and Quality Manager) (DASR 145.A.30(b) and DASR 145.A.30(c))*	X	
Safety Manager (DASR 145.A.65 and **DASR SMS**)		X
NDT Responsible Level III	X*	
Other Managers (DASR AMC 145.A.30(b)(8))		X
Deputy Nominated Personnel (DASR 145.A.30(b)(4))	X**	

* Form 4 not required when a member of the MAA.

** The MOE procedure shall make clear who deputises for any particular nominated personnel in the case of lengthy absence of the said person. In any case it is the responsibility of the maintenance organisation to ensure that deputy personnel are nominated and approved by the MAA via a DASR Form 4 prior to assuming the role of the nominated person.

REVISED AMC TEXT

New heading
AMC 145.A.30 - Personnel requirements (AUS)

1. The following table summarises those personnel who require, or do not require, a DASR Form 4 accepted by DASA.

MANAGEMENT PERSONNEL	DASR Form 4 Required
Accountable Manager (DASR 145.A.30(a))	No
Nominated Personnel (Responsible Manager* and Quality Manager) (DASR 145.A.30(b) and DASR 145.A.30(c))	Yes
Safety Manager (DASR AMC SMS.A.25(b)(1)(1.3))**	No
Other Management Personnel (DASR AMC 145.A.30(b)(8))	No
NDT Responsible Level III (DASR 145.A.30(f))**	Yes***
Notes: * Includes base maintenance manager, line maintenance manager and workshop manager IAW AMC 145.A.30(b). ** If required for scope of business. *** DASR Form 4 not required when a member of DASA.	

2. Succession planning is critical to ensure an Accountable Manager, Safety Manager (if required) and Nominated Personnel are always appointed and there is no period (including during posting cycles) when no one is appointed to fulfil these duties. For Nominated Personnel, the maintenance organisation is to ensure that personnel are accepted by DASA, via a Form 4, prior to performing the duties of the role. When alternate personnel are appointed, the appointment must be clearly articulated and promulgated when, and for what period, the incumbent relinquishes the duties of the position and the replacement performs the duties.

3. For short-term absences of the incumbent, an Accountable Manager, Safety Manager (if required) or Nominated Personnel may authorise a person or group of persons to act in their role. In this instance, the incumbent remains accountable, in their absence, for all functions performed by the authorised person. Persons acting for Nominated Personnel during short-term absences do not require a Form 4 accepted by DASA.

DASR AMENDMENT RECORD
DCP 2024 – 034

DASR CLAUSE: AMC M.A.706 (paragraphs 5 to 9)

RATIONALE FOR CHANGE

AMC has been revised to remove repetitive content and to clarify the importance of succession planning to ensure personnel are always appointed to key management positions, and there is no period (including during posting cycles) when no one is appointed to fulfil these duties. The description of 'Deputy' nominated management personnel was found to be confusing / prescriptive and has been replaced with outcome-based language on succession planning. The AMC will also align with the proposed changes to AMC 145.A.30 and AMC 147.A.105(b). This change renames 'Nominated Management Team' to 'Other Management Personnel' to remove ambiguity with 'Nominated' management personnel in DASR 145 and DASR 147 that require a DASR Form 4 (DASR Form 4 is also titled 'Acceptance of Nominated Management Personnel'). This change removes "Other Managers" from the table as this is already covered by "Other Management Personnel". Current AMC paragraphs 5 – 9 to be replaced with new paragraphs 5 – 8.

CURRENT AMC TEXT

5. **Nominated Deputy Management Personnel.** A nominated deputy is a person who may be appointed as an alternate to the nominated person, when the incumbent nominated person is absent for a period of time. To ensure clear lines of responsibility, the nominated deputy is required to assume all responsibilities when formally appointed in the absence of the incumbent nominated person. As a result, the nominated deputy is required to satisfy the same qualification experience and knowledge requirements as the incumbent per the relevant AMC and is to be approved by the NMAA. This approval can either be through the CAME or on a Form 4 depending if the nominated person's position requires a Form 4 approval per the table below.

6. There can only be one person fulfilling the role of the nominated position at any single point in time. When designating a nominated deputy to fulfil the role of the nominated position, it should be clearly articulated and promulgated when the incumbent relinquishes responsibility of the position and a nominated deputy assumes responsibility as the nominated person and for what period.

7. Note, a deputy Accountable Manager or deputy nominated person is not intended to replace the nominated person for an indefinite period of time. This particularly applies when the Accountable Manager or a nominated person leaves the CAMO; in such a case the new nominated person is to be appointed within a reasonable period of time as agreed by the NMAA.

8. Where a nominated position requires a Form 4 approval, and the nominated person has not nominated an alternate person to be their deputy in the regulatory intent, the nominated person may still task a person or group of persons without a Form 4 approval to fulfil the duties of the nominated person, however the nominated person retains responsibility for all functions performed.

CURRENT AMC TEXT (continued)

9. Management Personnel Requiring a Form 4. The following table summarises when a DASR Form 4—Acceptance Of Nominated Management Personnel, is required in order for the management personnel to be approved by the NMAA.

MANAGEMENT PERSONNEL	DASR Form 4 Required	DASR Form 4 Not Required
Accountable Manager (DASR M.A.706(a))		X
Continuing Airworthiness Manager (DASR M.A.706(d))	X	
Quality Manager (DASR M.A.706(f) and DASR M.A.712(a))	X	
Safety Manager (DASR M.A.712(g) and DASR SMS)		X
Nominated Management Team (DASR M.A.706(c))		X*
Airworthiness Review Staff (DASR M.A.707(b))	X	
Maintenance Program Approval Employee (DASR AMC M.A.706(f))		X
Other Managers		X
Deputy Nominated Personnel	X**	

* DASR M.A.706(c) positions should be appointed by the CAMO and will be accepted by the NMAA as part of the CAME approval and do not require a Form 4 approval. Form 4 applications for these personnel will only be processed if it is the intent that the person will be appointed as the CAM for a period of time in the absence of the CAM, i.e. a deputy CAM.

** A deputy requires a Form 4 approval when they are nominated as a deputy for a position requiring a Form 4 approval per this table.

REVISED AMC TEXT

5. The following table summarises those personnel who require, or do not require, a DASR Form 4 accepted by DASA.

MANAGEMENT PERSONNEL	DASR Form 4 Required
Accountable Manager (DASR M.A.706(a))	No
Continuing Airworthiness Manager (DASR M.A.706(d))	Yes
Quality Manager (DASR M.A.706(f) and DASR M.A.712(a))	Yes
Safety Manager (DASR AMC SMS.A.25(b)(1)(1.3))*	No
Other Management Personnel (DASR M.A.706(c))	No
Airworthiness Review Staff (DASR M.A.707(b))	Yes
Maintenance Program Approval Employee (DASR AMC M.A.706(f))*	No
Note: * If required for scope of business.	

6. When a CAMO chooses to appoint 'Other Management Personnel' for any or all combinations of the identified DASR M functions (i.e. authorisations to act on behalf of management personnel who require a Form 4), it is necessary that these other management personnel should report ultimately through either the Continuing Airworthiness Manager, Quality Manager or Safety Manager (if required), as appropriate, to the Accountable Manager.

7. Succession planning is critical to ensure an Accountable Manager, Continuing Airworthiness Manager, Quality Manager and Safety Manager (if required) are always appointed and there is no period (including during posting cycles) when no one is appointed to fulfil these duties. For the Continuing Airworthiness Manager or Quality Manager, the CAMO is to ensure that personnel are accepted by DASA, via a Form 4, prior to performing the duties of the role. When alternate personnel are appointed, the appointment must be clearly articulated and promulgated when, and for what period, the incumbent relinquishes the duties of the position and the replacement performs the duties.

8. For short-term absences of the incumbent, an Accountable Manager, Continuing Airworthiness Manager, Quality Manager or Safety Manager (if required) may authorise a person or group of persons to act in their role. In this instance, the incumbent remains accountable, in their absence, for all functions performed by the authorised person. Persons acting for the Continuing Airworthiness Manager or Quality Manager during short-term absences do not require a Form 4 accepted by DASA.

DASR AMENDMENT RECORD
DCP 2024 – 034

DASR CLAUSE: AMC 147.A.105(b) - Personnel requirements

RATIONALE FOR CHANGE

AMC has been revised to clarify when a Form 4 is needed and to highlight the importance of succession planning to ensure personnel are always appointed to key management positions, and there is no period (including during posting cycles) when no one is appointed to fulfil these duties. The AMC will also align with the proposed changes to DASR 145 & DASR M. Current AMC to be replaced with new content and heading updated.

CURRENT AMC TEXT

Current Heading

AMC 147.A.105(b) - Personnel requirements

With the exception of the Accountable Manager, a DASR Form 4 should be completed for each person nominated to hold a position required by DASR 147.A.105(b).

REVISED AMC TEXT

New heading

AMC 147.A.105(b) - Personnel requirements (AUS)

1. The following table summarises those personnel who require, or do not require, a DASR Form 4 accepted by DASA.

MANAGEMENT PERSONNEL	DASR Form 4 Required
Accountable Manager (DASR 147.A.105(a))	No
Nominated Personnel (Training Manager, Quality Manager and Examination Manager) (DASR 147.A.105(b))	Yes
Other Management Personnel	No

2. When a maintenance training organisation chooses to appoint 'Other Management Personnel' for any or all combinations of the identified DASR 147 functions (i.e. authorisations to act on behalf of management personnel who require a Form 4), it is necessary that these other management personnel should report ultimately through either the Training Manager, Quality Manager or Examination Manager, as appropriate, to the Accountable Manager.

3. Succession planning is critical to ensure an Accountable Manager and Nominated Personnel are always appointed and there is no period (including during posting cycles) when no one is appointed to fulfil these duties. For Nominated Personnel, the maintenance training organisation is to ensure that personnel are accepted by DASA, via a Form 4, prior to performing the duties of the role. When alternate personnel are appointed, the appointment must be clearly articulated and promulgated when, and for what period, the incumbent relinquishes the duties of the position and the replacement performs the duties.

4. For short-term absences of the incumbent, an Accountable Manager or Nominated Personnel may authorise a person or group of persons to act in their role. In this instance, the incumbent remains accountable, in their absence, for all functions performed by the authorised person. Persons acting for Nominated Personnel during short-term absences do not require a Form 4 accepted by DASA.

DASR AMENDMENT RECORD
DCP - 0031

DASR CLAUSE: DASR Glossary

RATIONALE FOR CHANGE

DASR glossary requires amendment to clarify key DASR terminology not included in EMAD 1 (EMAR Glossary) in support of new DASPMAN Vol 3 Chap 8, Sect 8.2, Para 8.2.2 - *Operation of an Aircraft with a known Defect*. New definition aligned to CASA definition, as defined within CASA AC21-28.

CURRENT GLOSSARY TEXT

Defect*

A fault, other than by fair wear and tear, which renders an item unsuitable for its intended use. The fault may be in design or deviation of a dimension, finish or other functional characteristic from specified requirements or from recognised standards of engineering practice.

REVISED GLOSSARY TEXT

Defect*

An imperfection that impairs the structure, composition, or function of a product, part, appliance or system of an aircraft or component, or an exceedance of operational limitations in the Instructions for Continuing Airworthiness (ICA).

DASR AMENDMENT RECORD
DCP - 0031

DASR CLAUSE: DASR Glossary

RATIONALE FOR CHANGE

DASR glossary requires amendment to include key DASR terminology not included in EMAD 1 (EMAR Glossary) in support of new DASR GR.60 content.

CURRENT GLOSSARY TEXT

Not applicable new DASR glossary entries.

REVISED GLOSSARY TEXT

Corrective Action*

Action taken to eliminate the root cause(s) of a non-compliance.

Corrective Action Plan*

A documented set of activities providing the link between the root cause(s) and corrective actions designed to address an identified non-compliance, together with required evidence and implementation schedule to effectively prevent potential reoccurrence.

Immediate Action*

The intervention required by an organisation to remedy the hazard presented by a non-compliance such that it is considered mitigated So Far As is Reasonably Practicable (SFARP).

Root Cause Analysis*

The process of discovering the underlying factors that contributed to a non-compliance.

DASR AMENDMENT RECORD
DCP - 0033

DASR CLAUSE: GM M.A.905(a)

RATIONALE FOR CHANGE

The 27 Feb 25 DASR M update, moved all information in regards to 'Findings' to GR.60 Oversight and enforcement. As a result of this change, GM M.A.905(a) is now redundant, as it is just a link to M.A.716, which in turn is just a link to GR.60.

CURRENT GM TEXT

See GM DASR M.A.716 for further guidance.

REVISED GM TEXT

Delete GM M.A.905(a) in toto.

DASR AMENDMENT RECORD
DCP - 0033

DASR CLAUSE: M.A.905(a)

RATIONALE FOR CHANGE

As GM M.A.905(a) is to be deleted, M.A.905(a) is to be amended to include a link to GR.60 as per the standard DASR practice of providing a link to referenced DASR text.

CURRENT REGULATION TEXT

After receipt of notification of findings by the MAA, the Operating Organisation of the aircraft concerned shall manage the finding IAW GR.60, and:

REVISED REGULATION TEXT

After receipt of notification of findings by the MAA, the Operating Organisation of the aircraft concerned shall manage the finding IAW GR.60, and:

DASR AMENDMENT RECORD
DCP 2024-038

DASR CLAUSE: GM ANSP.60.b.c.i

RATIONALE FOR CHANGE

GM ANSP.60.B.c.i refers to a 'Civil Air Operator Chief Pilot' as the appropriate person to authorise variations to ATC separation standards for civil aircraft. This DCP proposes a terminology change to 'Civil Air Operator Head of Flying Operations' to align with contemporary terminology contained within *the Civil Aviation Safety Regulations 1998*—where the term 'Chief Pilot' is no longer in use. The 'Head of Flying Operations' position holds the primary responsibility for managing safety and compliance of flying operations for the Civil Air Operator—and is therefore the most appropriate person to authorise variations to ICAO separation standards.

CURRENT REGULATION TEXT

c. Where ICAO separation standards are varied due to operational considerations:
   i. the application of variation to an air traffic separation standard must be authorised by the MAO-AM, Civil Air Operator Chief Pilot, or foreign unit commander responsible for the aircraft to which the reduced standard will be applied

REVISED REGULATION TEXT

c. Where ICAO separation standards are varied due to operational considerations:
   i. the application of variation to an air traffic separation standard must be authorised by the MAO-AM, Civil Air Operator Head of Flying Operations, or foreign unit commander responsible for the aircraft to which the reduced standard will be applied

DRAFT DASR UAS.35(g) FOR JUL 25 DASR RELEASE

STANDARD SCENARIO FOR LIMITED OPERATIONS OVER NON-DEFENCE CONTROLLED LAND OR WATER

Contents

SECTION 1: ADDITIONS TO THE DASP ACRONYMS AND GLOSSARY

1. The following **new and revised** acronyms and definitions are proposed for the DASP Manual Acronyms and Glossary:

Glossary

Mission Crew * (UAS Context)
Crew who may or may not be qualified on the uncrewed aircraft type, but their qualifications are essential for the successful outcome of a specific UAS mission. Mission crew is a subset of UAS crew.

Remote Crew * (UAS Context)
Crew, including personnel authorised to undertake uncrewed aircraft type qualification training, who are charged with duties essential to the safe operation of the uncrewed aircraft. Remote crew is a subset of UAS crew.

UAS Crew * (UAS Context)
Competent and authorised individuals, including personnel authorised to undertake uncrewed aircraft type qualification training, who may operate or interface with an UA's systems during flight specific UAS mission, including temporary equipment installations. Crew is broken into subsets of remote crew and mission crew.

SECTION 2: NEW DASR UAS.35(g) PART ONLY

The following is a new DASR Part in DASR UAS.35. There are no other changes to the extant DASR UAS.35.

DASR UAS.35(g) – STANDARD SCENARIO FOR LIMITED OPERATIONS OVER NON-DEFENCE CONTROLLED LAND OR WATER

(g) **Standard Scenario for limited operations over non-Defence Controlled Land or water** ▸ GM1 ▸ GM2

1. The Standard Scenario for limited operations over land/water not controlled by Defence is:

   i. exclusively for use by Approved Organisations ▸ GM

   ii. not for Test and Evaluation of UAS Safety Critical systems.

2. The UAS Operator authorising operations under this Standard Scenario must establish and maintain:

   i. a Flying Management System (FMS) contextualised for the UAS role and operating environment, including: ▸ AMC ▸ GM

      a. approved UAS Configuration, Role and Operating environment (CRE) documents for UAS operated under the Standard Scenario ▸ AMC ▸ GM

      b. appointment of key staff to manage the FMS ▸ AMC

      c. UAS Crew training, experience, competency and medical requirements ▸ AMC1 ▸ AMC2

      d. Flying Supervision, inclusive of Flight Authorisation ▸ AMC

e. a safety management system IAW DASR SMS ▸ AMC1 ▸ AMC2 ▸ GM

f. management of OIP IAW DASR AO.GEN, except:

(1) AO.GEN 05(c)2

(2) GM and AMC to AO.GEN 05.D

ii. a tailored initial and continuing airworthiness system contextualised for CRE, including: ▸ GM

a. UAS safety and reliability ▸ AMC1 ▸ AMC2

b. UAS configuration management ▸ AMC1 ▸ AMC2

c. maintenance requirements and instructions ▸ AMC1

3. The UAS Operator must conduct operations:

i. with a UA of maximum: ▸ GM

a. dimension no more than 8 m ▸ AMC

b. airspeed no more than 75 m/s ▸ AMC

ii. that minimises flight in vicinity of identified GP and CI locations, so far as is reasonably practicable ▸ AMC1 ▸ AMC2 ▸ AMC3 ▸ AMC4

iii. in Airspace that excludes non-participating aircraft ▸ AMC1 ▸ AMC2 ▸ GM

iv. with a dedicated RP for each UA

v. that enables RP intervention during all stages of Flight except for Lost Link ▸ AMC

4. The UAS Operator must not conduct operations that:

i. occur over an area where a fire, police or other public safety or emergency operation is being conducted without the approval of the person in charge of the operation

ii. create an obstruction to another aircraft

iii. occur in a Prohibited Area or Restricted Area unless approved by the authority controlling the area

iv. occur over an aerodrome runway/movement area without approval from the relevant authority ▸ GM

v. occur in the approach or departure path of a runway, landing area or ship without approval from the relevant authority. ▸ GM

SECTION 3: NEW DASR UAS.35(g) PART, AMC and GM

The following is a new DASR Part addition in DASR UAS.35, with its corresponding AMC and GM. AMC in purple text. GM in brown text. There are no other changes to the extant DASR UAS.35.

DASR UAS.35(g) – STANDARD SCENARIO FOR LIMITED OPERATIONS OVER NON-DEFENCE CONTROLLED LAND OR WATER

(g) **Standard Scenario for limited operations over non-Defence Controlled Land or water**
▼GM1 ▼GM2

GM1 UAS.35(g) – Purpose statement (AUS)

a. **Purpose. (Context)** The conduct of UAS operations over areas not controlled by Defence is essential to the employment of Defence UAS capabilities. This standard scenario provides Approved Organisations with a pathway to achieve UAS operational objectives without the need for a bespoke DASA approval. **(Hazard)** Inadequate risk management of UAS operations over areas not controlled by Defence may compromise Aviation Safety and breach Defence WHS obligations. **(Defence)** This regulation requires Approved Organisations to implement risk controls to eliminate safety risks SFARP, or where it is not reasonably practicable to eliminate those risks, to otherwise minimise safety risks SFARP.

GM2 UAS.35(g) – Applicability and associated Privilege (AUS)

a. **Applicability**. DASA provides this standard scenario only to approved UAS operating organisations with an assessed Flying Management System (FMS), whereby DASA has assured and recognised the FMS through a formal approval. UAS operators and UAS operating organisations that do not hold such an approval may not use this standard scenario.

b. **Privilege**. This standard scenario provides approved UAS operating organisations with a Privilege to operate UAS with residual risk to third parties through the Risk Management procedures detailed in the standard scenario. This Privilege invokes specific requirements to execute Defence responsibilities to third parties in addition to those detailed in the broader DASP. DASA will review and monitor this Privilege through Oversight & Enforcement and will revoke the Privilege where non-compliances are identified.

1. The Standard Scenario for limited operations over land/water not controlled by Defence is:

   i. exclusively for use by Approved Organisations ▼GM

   GM UAS.35(g)1.i – Approved Organisations (AUS)

   a. This standard scenario is exclusively for use by Approved Organisations to assure Aviation Safety associated with UAS operations over areas not controlled by Defence. The standard scenario achieves this through constraining its use to organisations with approved Flying Management Systems (FMS), Quality Management Systems, and Safety Management Systems.

   b. For the purpose of this Standard Scenario, MAOs are Approved Organisations.

   c. Other Command/Group Heads must apply to DASA for organisational approval provided effective Flying Management Systems (FMS), Quality Management Systems, and Safety Management Systems can be demonstrated to the Authority.

   ii. not for Test and Evaluation of UAS Safety Critical Systems.

2. The UAS Operator authorising operations under this Standard Scenario must establish and maintain:

i. a Flying Management System (FMS) contextualised for the UAS role and operating environment, including: ▼AMC ▼GM

AMC UAS.35(g)2.i – Operational risk controls for UAS operations (AUS)

a. The UAS Operator should implement operational risk controls in order to eliminate or otherwise minimise risk SFARP when conducting UAS operations under this Standard Scenario.

b. Operational risk controls should include:

i. pre-flight checks (including independent verification of Safety Critical data), carried out IAW approved OEM or equivalent procedures, that confirm the configuration and serviceability of:

(1) the UA airframe, control surfaces and propellers/rotor blades

(2) the UA navigation system

(3) technical risk controls (eg autonomous recovery systems, geo-fencing, altitude and range limiter and on-board camera)

(4) payloads, including payload mounting and release mechanisms

(5) other systems that contribute to Aviation Safety.

ii. approved UAS limitations, in a Flight manual or equivalent document for:

(1) performance limitations during Flight (eg max commanded airspeed)

(2) task limitations (eg ground obstruction avoidance requirements)

(3) datalink limitations (eg range)

(4) weather limitations of the UA (eg not to operate in rain, and wind gust limits)

(5) limitations of technical risk controls (eg limitations of autonomous recovery system, geo-fencing, altitude and range limiter and on-board cameras)

(6) any other design feature that may contribute to Aviation Safety.

iii. procedures to manage NTS or Human Machine Interface (HMI) concerns

iv. procedures to manage Lost Link

v. procedures and limitations for Beyond Visual Line-Of-Sight (BVLOS), reduced visibility, night and IMC operations

vi. procedures that enable the RP to operate the UAS within its weather limitations (eg obtaining weather forecasts and monitoring weather radars)

vii. procedures to manage the RPS environment (eg sterile cockpit)

viii. handover procedures that enable the RP to perform a handover to another RP (eg checklists, crew coordination and monitoring during handover)

ix. procedures to avoid spectrum conflict and electromagnetic interference (eg coordinating with the Defence Spectrum Office and conducting a Radio Frequency survey for high intensity emitters)

x. emergency procedures for the following:

(1) Flight termination (including criteria and flight termination sites)

(2) intrusion by another airspace user into the assigned airspace

(3) UA escape from the operational area/assigned airspace (eg alerting GP/MEP, other airspace users and ATC)

(4) malfunction of technical risk controls

(5) loss of positive control

(6) unintended UA ground impact

(7) hung or inadvertently released stores

(8) any other reasonably foreseeable event that creates a hazard to GP/MEP, critical infrastructure, or other airspace users, that could result in a breach of Defence's legal obligations, both domestic under the WHS Act and international, namely under the Chicago Convention 1944 from a *due regard* perspective.

GM UAS.35(g)2.i. – Flying Management System (AUS)

a. **Purpose.** The purpose of this requirement is to assure to the Authority that UAS Operators have an adequate flight operations framework of authority, appropriately contextualised to the UAS Configuration, Role and Environment (CRE). Further guidance on Flying Management System elements is provided in GM ORO.10(a).

a. approved UAS Configuration, Role and Operating environment (CRE) documents for UAS operated under the Standard Scenario ▾ AMC ▾ GM

AMC UAS.35(g)2i.a – Documenting the UAS configuration, role and operating environment (AUS)

a. The UAS Operator should use the UAS CRE document template for capturing a UAS CRE as a minimum, or an SOIU IAW DASR ARO.50.A where relevant. A Commander (or delegate) may approve a UAS CRE document.

b. The UAS Operator should reference the approved UAS CRE document in the relevant DASR Form 150. Significant changes to the CRE document should be advised to DASA through the submission of an updated DASR Form 150 referencing the updated document.

GM UAS.35(g)2i.a – Defining the UAS role and operating environment

a. **Purpose**. The purpose of this regulation is to assure to the Authority that a CRE or SOIU is developed to inform decisions on whether an aircraft design remains safe for operations in the defined roles and environments. It establishes context for risk management, and sets a baseline to control activities and help identify changes which require update and reassessment of risk management. Further guidance is provided in DASR UAS.30(b)2.

b. appointment of key staff to manage the FMS ▾ AMC ▾ GM

AMC UAS.35(g)2i.b– Appointment of Key Staff (AUS)

a. The UAS Operator should formally appoint competent, qualified and appropriately trained Key Staff commensurate to the scope and complexity of the UAS operation:

i. including initial and continuing eligibility criteria to occupy designated positions

i. with authority delegated to the position-holder including any limitations

ii. for managing, as a minimum:

(1) the Safety Management System

(2) initial and continuing airworthiness

(3) Standardisation

(4) Flying Supervision, inclusive of Flight Authorisation

(5) instruction.

b. The UAS Operator may combine Key Staff accountabilities where it is not reasonably practicable to separate them.

GM UAS.35(g)2i.b – Key Staff (AUS)

a. Key Staff may include:

i. **Standardisation Officers (STANDO).** A STANDO is responsible to the Accountable Manager for monitoring and reporting on RP compliance with OIP, and providing guidance for standardisation of unit UAS operations.

ii. **Flight Authorisation Officers (FLTAUTHO).** FLTAUTHOs are appointed personnel responsible for the flight authorisation of all UAS operations undertaken by the unit and can be of any rank or position.

iii. **Aviation Safety Officer (ASO).** An ASO is responsible for the management and maintenance of UAS Aviation Safety within the operating organisation. Such duties might include, hazard tracking, safety training, ensuring crew duty limits are being enforced, operational hazards and incident reporting and investigation, and correction of identified deficiencies.

iv. **UAS instructors.** A UAS instructor is an appropriately qualified person authorised by the UAS Operator as competent to provide UAS flying instruction. The UAS instructor is responsible for providing instruction and assessment to UAS Crew IAW the relevant LMP and OIP. UAS Instructors may also be OEM authorised personnel responsible for initial or continuation training on the relevant UAS.

c. UAS Crew training, experience, competency and medical requirements
▾ AMC1 ▾ AMC2

AMC1 UAS.35(g)2i.c – UAS Crew training, qualification, and experience (AUS)

a. UAS Operators should implement UAS Crew training and management risk controls including:

i. training that prepares the Remote Crew (and Mission Crew where relevant) to:

(1) perform flight planning

(2) perform the required action/tasks for employing/programming risk controls

(3) perform the required pre-flight, in-flight and post flight checks

(4) perform the required actions to load/unload payloads/stores, where relevant

(5) identify and perform emergency procedures

(6) perform emergency response actions (eg unit emergency response plan)

(7) operate IAW approved OIP

(8) operate in the full range of approved environmental conditions

(9) operate in multi-crewed environments, where relevant

(10) operate the UA in a way that minimises risk to GP/MEP, critical infrastructure or other airspace users

(11) identify and manage risks unique to the UA role and operating environment.

ii. a UAS Crew qualification system that defines the requirements for training, experience and Recency, and considers:

(1) the UAS operated by the UAS Operator

(2) the role and operating environment (eg VLOS vs BVLOS operations, VMC vs reduced visibility, day vs night operations, operations with participating aircraft)

iii. Remote Crew Captaincy requirements to ensure:

(1) collection of sufficient pre-flight information and conduct of flight planning for safe execution of the Flight (eg UAS configuration, crew suitability, mission tasking, authorisation guidance, curriculum description, weather and operating environment)

(2) conduct of an adequate pre-flight briefing

(3) the UAS and any ancillary equipment is serviceable, maintenance released (where relevant) and accepted for the flight

(4) effective management of multi-crew operations

(5) effective management of the Remote Pilot Station environment (eg sterile cockpit)

(6) compliance with all OIP relevant to flight

(7) occurrences outside the scope of the flight authorisation are managed in accordance with the OIP and the principles of good airmanship

(8) Captains use all the resources at their disposal to ensure the safe execution of flights, including credible emergency scenarios

(9) Captains contact the FLTAUTHO for advice and guidance when necessary to deviate from the flight authorisation, as soon as circumstances allow

(10) conduct of a post-flight crew debrief

(11) the FLTAUTHO is notified of any unusual occurrences or deviations from the flight authorisation

(12) compliance with post-flight documentary requirements.

iv. a method of recording UAS Crew competency, experience and recency.

AMC2 UAS.35(g)2i.c – UAS Crew medical fitness requirements (AUS)

a. Remote Crew (and Mission Crew where relevant) medical fitness requirements should include:

i. a medical fitness system that defines:

(1) minimum medical standard required to operate the UAS (eg aligned to Service requirements)

(2) drug (including prescription and non-prescription medication) and alcohol use (eg limitations, notification requirements, mandatory no-fly)

(3) fatigue management (eg duty day, continuous rest between duty days, maximum accumulative flight times per day)

(4) self-assessment of medical fitness prior to and during flight operations.

ii. training that enables the UAS Crew to understand the aviation safety risks associated with medical fitness in order to conduct an appropriate self-assessment.

d. Flying Supervision, inclusive of Flight Authorisation ▾ AMC1 ▾ AMC2

AMC1 UAS.35(g)2i.d – Flying Supervision (AUS)

a. UAS Operators should:

i. define Flight Authorisation (FLTAUTH) requirements, including:

(1) a brief to the Flight Authorisation Officer (FLTAUTHO) on the intended Flight

(2) requirement for the FLTAUTHO to approve the Flight

ii. define FLTAUTHO requirements, including:

(1) qualifications, training, experience and rank commensurate to the risk context

(2) approval authority and limitations commensurate to the risk context

(3) responsibilities

(4) self-authorisation limitations

(5) review periods for qualifications and personnel

iii. determine, based on the UAS CRE, whether to qualify the FLTAUTHO through either a Service-endorsed Flying Supervisors course or as a minimum, unit-level training that covers:

(1) Non-Technical Skills

(2) the Defence Aviation Safety Program and Regulations

(3) Aviation Safety Hazards

(4) contemporary risk management

(5) study of Occurrence Reporting, as well accident and incident reports from other global operators, of related UAS types

(6) FLTAUTHO roles and responsibilities

(7) supervision of Crew.

iv. not use non-unit personnel as FLTAUTHOs, unless operationally essential and appropriately qualified

v. ensure FLTAUTH is conducted.

AMC2 UAS.35(g)2i.d – Flight Authorisation (AUS)

a. Flight Authorisation:

i. must only occur within a FLTAUHTO's approved authority

ii. should provide unambiguous instructions and guidance to allow the Aircraft Captain to make well-balanced decisions, while avoiding unnecessary interference with the Aircraft Captain's legitimate decision-making responsibilities

iii. should ensure operations occur IAW:

(1) the standard scenario requirements

(2) the organisation's approved OIP for:

(a) CRE or SOIU

(b) airspace management and de-confliction

(c) continuing airworthiness requirements and limitations when relevant

(d) operation of the UAS

(e) mission planning

(f) crewing requirements (qualifications, experience, medical fitness)

(g) risk management.

iv. should ensure FLTAUTH records for each flight

(1) include:

(a) Flight date, time and expected duration

(b) UAS type and serial number

(c) callsign (if used)

(d) crew composition (eg Aircraft Captain, Remote Crew, Mission Crew)

(e) planned mission details

(f) any specific limitations that apply to the Flight

(g) identifiable acknowledgements by the FLTAUTHO and the Aircraft Captain

(2) are retained as a permanent record and archived when the unit no longer requires those records (eg IAW Commonwealth records management policy issued under the Archives Act 1983).

e. a safety management system IAW DASR SMS ▾ AMC1 ▾ AMC2

AMC1 UAS.35(g)2i.e – SMS (AUS)

a. UAS Operators should implement an SMS appropriate to the scale and scope of operations employed under this standard scenario and assurance of Unit operations against DASR UAS and DASR SMS.

AMC2 UAS.35(g)2i.e – Occurrence reporting (AUS)

a. UAS Operators should consider incorporating the reporting of UAS Aviation Safety Issues IAW DASR UAS.60(b).

b. The UAS Operator should define in OIP at a minimum:

i. reporting parameters for UAS Aviation Safety Events and/or Aviation Safety Issues (if relevant)

ii. personnel responsible for entering Aviation Safety Events/Issues into the relevant reporting system.

f. management of OIP IAW DASR AO.GEN, except:

(1) AO.GEN 05(c)2 and 3

(2) GM and AMC to AO.GEN 05.D

ii. a tailored initial and continuing airworthiness system contextualised for the CRE, including: ▼ GM

GM UAS.35(g)2.ii – Initial and Continuing Airworthiness (AUS)

a. **Purpose of Initial Airworthiness.** The purpose of Initial Airworthiness in this context is to assure to the Authority that UAS Operators have suitable arrangements in place to identify and remedy deficiencies in the UAS design (or design change deficiencies) where reasonably practicable. The system safety and reliability requirement draw from initial and continuing airworthiness principles and seek to apply them where they make a tangible contribution to safety in the context of operations under this Standard Scenario.

b. **Purpose of Continuing Airworthiness.** The purpose of Continuing Airworthiness is to assure to the Authority that UAS Operators have suitable arrangements in place to maintain the UAS in a condition for safe operation for the CRE.

a. UAS safety and reliability ▼ AMC1 ▼ AMC2

AMC1 UAS.35(g)2ii.a – Safety and reliability (AUS)

a. The UAS Operator should:

i. conduct a hazard assessment that ensures the equipment, systems, and installations are designed to minimise hazards in the event of a probable failure of the UAS or of any external system supporting the operation

ii. ensure the UAS is manufactured by a competent and/or proven entity. This may be achieved through an assessment of quality certifications (eg relevant ISO standards), OEM manufacturing procedures, the specification of materials, suitability and durability of materials used, processes necessary to allow for repeatability in manufacturing and conformity within acceptable tolerances and configuration control.

iii. establish agreements with the OEM and other relevant design service providers to provide design solutions to correct unsafe conditions identified in the extant UAS design where reasonably practicable.

AMC2 UAS.35(g)2i.e – Technical risk controls for UAS operations (AUS)

a. The UAS Operator should implement technical risk controls in order to eliminate or otherwise minimise risk SFARP when conducting UAS operations under this Standard Scenario.

b. Technical risk controls should include:

i. automatic Flight actions upon Command and Control Lost Link (eg autonomous recovery system, or Flight termination (when it is safe to terminate independently))

ii. automatic protection of the flight envelope to prevent the RP from making any single input under normal operating conditions that would cause the UA to exceed its flight envelope or prevent it from recovering in a timely fashion

iii. containment of the UA in the operational area and the Airspace designated for the activity (eg geo-fencing, tether, programmable maximum and minimum altitude)

iv. the ability for the RP to monitor link performance through the control interface, externally provided services that affect flight critical systems and voice communication systems

v. the functionality to enable manual termination of Flight by the RP.

vi. considerations for the safe recovery from Human Error (eg, functional tests, safety pins, use of acknowledgment features, fuel or energy consumption monitoring functions)

b. UAS configuration management ▼ AMC

AMC UAS.35(g)2ii.b – UAS configuration management (AUS)

a. The UAS Operator should establish a system:

i. to collect, investigate and analyse information on in-service failures, malfunctions and defects. This system should include, as a minimum, information from ADF occurrence reports, the OEM and occurrences reported from foreign operators

ii. that manages the configuration of the UAS design, approved design changes and repairs cognisant of the UAS configuration, role and environment

iii. to assess proposed CRE changes

iv. to assess changes to the design risk.

c. maintenance requirements and instructions ▼ AMC

AMC UAS.35(g)2ii.c – Maintenance requirements and instructions (AUS)

a. The UAS Operator should ensure maintenance:

i. requirements and instructions are defined (within OEM issued documentation or within unit level OIP), authorised and available to relevant personnel

ii. is carried out IAW approved maintenance requirements and instructions.

b. Maintenance requirements should define:

i. personnel authorised to conduct maintenance (eg operations or maintenance personnel)

ii. qualification, training and experience requirements to conduct maintenance

iii. maintenance schedules (eg ‘on condition’ monitoring through pre and post flight inspection, specific timeframes) that consider:

(1) the mechanical, avionic, and computer-based systems (including software and firmware) associated with the:

(a) UA and their power sources, such as battery cycles, fuel cells etc.

(b) UAS support equipment, including transmitter/receiver equipment, radio devices, and any other item of plant or equipment associated with the operations or use of the UAS

(c) UAS role equipment and their fittings, such as cameras, electronic sensing devices etc.

(2) OEM defined / recommended servicing schedules

(3) defect reporting and mean time between failures.

iv. a system, where relevant, for:

(1) the controlled deferment of defects for non-Safety Critical systems

(2) post maintenance test flights

(3) release to service

(4) weight and balance management

(5) the management of Airworthiness Directives.

v. the requirement to maintain technical logs for:

(1) type, model, and unique id of the RPA

(2) max gross weights

(3) total flight time

(4) in-service time for engines, motors, rotors, propellers, external loads and safety equipment, where relevant

(5) maintenance schedules, maintenance carried out and next maintenance action

(6) rectification of defective safety equipment

(7) unserviceable failsafe equipment

(8) maintenance certification.

c. Maintenance instructions should define how maintenance is to be carried out and the personnel authorised to conduct the maintenance activity.

3. The UAS Operator must conduct UAS operations:

i. with a UA of maximum: ▼GM

GM UAS.35(g)3.i – UA size and speed limitations (AUS)

a. **Purpose.** The purpose of this regulation is to constrain the size of the area on the ground (critical area) where a UA could impact a standing person and result in a fatality. This is achieved through UA dimension and speed limitations, and assumes

no additional risk controls to protect people or reduce the consequence of an impact.

a. dimension no more than 8 m ▾ AMC

AMC UAS.35(g)3i.a Maximum UA Dimension (AUS)

a. UAS Operators should calculate maximum UA dimension using:

i. wingspan for fixed wing

ii. main rotor diameter for rotorcraft

iii. maximum distance between rotor tips for multirotors.

b. Where UAS size alters during Flight (eg VTOL system with foldable wings), the largest UA dimension is used for the calculation.

b. airspeed no more than 75 m/s ▾ AMC

AMC UAS.35(g)3i.b Maximum UA Airspeed (AUS)

a. Maximum UA airspeed is the maximum possible commanded airspeed of the UA.

ii. that minimises flight in vicinity of identified GP and CI locations, so far as is reasonably practicable ▾ AMC1 ▾ AMC2 ▾ AMC3 ▾ AMC4

AMC1 UAS.35(g)3.ii – Planning requirements (AUS)

Process

a. UAS Operator determinations regarding the population at risk during operations should involve the consideration of normal and emergency UAS conditions. This process includes:

i. determining the area at risk for the operation

ii. determining the adjacent area

iii. evaluating population density, GP and CI locations within and adjacent to the area at risk

iv. implementing both technical and operational risk controls to eliminate risks to people, or where it is not reasonably practicable to eliminate those risks, to otherwise minimise the people at risk through:

(1) airspace or time-based restrictions (eg no operation during the day, no prolonged loitering IVO identified GP)

(2) avoidance of elevated risk areas (eg no operation within predetermined safe distances from known GP or CI locations)

(3) ground or air observation through visual or electronic means

(4) containment (eg geo-fencing, flight termination buffers, reduced fuel/energy states (if practicable))

(5) recovery systems that reduce impact energy (eg parachute recovery systems).

Area at risk

b. Figure 1 provides an example area at risk:

i. Green area – intended area for normal operations.

ii. Orange area – an area where the UA may operate for short periods of time under emergency conditions (eg to conduct corrective manoeuvres in order to return to the green area)

iii. Red area – if a loss of control event occurs and the UAS exceeds the orange area, the red area may be impacted. The red area is where a flight termination or an immediate landing is typically required to prevent the UA from operating over / becoming a hazard to non-permitted or higher risk locations (eg. populous area) in the adjacent area.

Figure 1: Example of the area at risk for operations with a 1m UA

c. UAS Operators should determine the area at risk for a UA system based on:

i. Green area dimensions:

(1) task profile to be flown (point to point, wide area surveillance)

(2) navigation accuracy (eg GNSS accuracy, position holding error, map error)

(3) UA flight logics

ii. Orange area dimensions:

(1) max operational speed of the UA

(2) turning radius (fixed wing) or stopping distance (multirotor)

(3) command and control latency

(4) RP reaction time

(5) loss-of-link logic (eg pre-programmed path or direct return)

(6) geo-fence logic (if active) upon breach of the geo-fence. (180 degree turn or stopping)

iii. Red area:

(1) max operational speed of the UA

(2) max operational height above ground level

(3) UA descent profile under controlled descent or flight termination (eg ballistic descent, glide ratio, drift under parachute recovery systems, debris field)

(4) command and control latency

(5) RP reaction time

Adjacent area

d. UAS Operators should determine the adjacent area (ie the area beyond the boundary of the orange area) to be considered based on the distance flown in 3 minutes at the maximum operational airspeed of the UA as follows:

i. if the distance is less than 5 km–use 5 km

ii. if the distance is between 5 and 35 km–use the calculated distance

iii. if the distance is more than 35 km–use 35 km.

People at risk

e. In determining whether an area meets the requirements of DASR UAS.35(g)3.i, an assessment of the area at risk and adjacent area via quantitative (where practicable) and qualitative means should be used.

f. **Quantitative values.** Quantitative values provided by static statistical data sources (eg the Australian Bureau of Statistics) should be used to determine the expected population density within an operational area; however, the UAS Operator should also consider that this data may not be commensurate with the actual population density at risk during an operation due to:

i. time-stale data (date of last census)

ii. time of day and day of week variations

iii. seasonal variations (eg. camping areas or holiday destinations that could be expected to have a greater population density during holiday periods)

iv. major weather events / area evacuations

v. sheltering (in general, it can be expected that UA weighing less than 25 kg are not able to penetrate into buildings except in rare cases where the UAS speed or building materials are unusual (tents, glass roofs, etc)).

g. When using quantitative values to determine the people at risk, the following should be applied:

i. in the area at risk – the highest population density (ppl/km^2) of any segment (1km x 1km grid square) in the operating area

ii. in the adjacent area – the average population density (ppl/km^2) based on available population data and adjacent area size.

h. Post the implementation of risk controls (eg avoidance criteria, time of day restrictions) the residual quantitative ‘at risk’ population densities that should not be

exceeded based on UA size and speed (critical area size) for operations under this Standard Scenario are:

i. for the determined area at risk:

Residual 'at risk' population densities			
Maximum UA dimension	1 m	3 m	8 m
Maximum airspeed	25 m/s	35 m/s	75 m/s
Max critical area size (for info only)	6.5 m	65 m	650 m
Maximum population density	500 ppl/km²	50 ppl/km²	5 ppl/km²
Equates to (for info only – assumes an even distribution of population in a 1km x 1km grid square)	1 person every 2000 m²	1 person every 20,000 m²	1 person every 200,000 m²

ii. for the determined adjacent area:

Adjacent Area Quantitative Values				
Maximum UA dimension		1 m	3 m	8 m
Maximum airspeed		25 m/s	35 m/s	75 m/s
Maximum Average population density (ppl/km²)	Sheltering applicable[1]	No limit	<50,000	<5,000
	Sheltering not applicable	NA	<5,000	<500
Note: 1. Sheltering can only be applied to adjacent areas if the UA weight is not more than 25 kg				

i. **Trade-off tables.** Where relevant, the UAS Operator may use the following tables which provide an increase to the allowable residual 'at risk' population densities when UA size or speed is less than the standard UA size and speed values:

Max UA dimension trade-off table – Residual 'at risk' population densities due to reduction in max UA dimension (NB: green columns indicate standard values)									
Max UA dimension	1 m	1.5 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m
Max airspeed (m/s)	25	35	35	35	75	75	75	75	75
Max residual population at risk (ppl/km²)	500	100	75	50	10	8	6.5	5.7	5

Max UA airspeed trade-off table – Residual 'at risk' population densities due to reduction in max UA speed (NB: green columns indicate standard values)								
Max UA dimension	1 m	3 m	3 m	3 m	8 m	8 m	8 m	8 m
Max airspeed (m/s)	25	17.5	26	35	37.5	56	65.6	75
Max residual population at risk (ppl/km²)	500	179	86	50	18	8.5	7.1	5

j. **Qualitative descriptors.** Where a UAS Operator cannot characterise population density through quantitative means, the qualitative descriptors defined below should be used to determine the likely population density in an area prior to the implementation of risk controls to reduce the 'at risk' population (where relevant).

Quantitative values	Qualitative Descriptions
< 5 ppl/km^2	Areas where people may be, such as forests, deserts, large farm parcels, etc. Areas where there is approximately 1 small building every km^2.
< 50 ppl/km^2	Areas of small farms. Residential areas with very large lots (~ 4 acres or 16,000 m^2).
< 500 ppl/km^2	Areas comprised of homes and small businesses with large lot sizes (~1 acre or 4,000 m^2).
< 5,000 ppl/km^2	Areas of single-family homes on small lots, apartment complexes, commercial buildings, etc. Can contain multi-story buildings, but generally most should be below 3-4 stories.
< 50,000 ppl/km^2	Areas of mostly large multi-story buildings. The downtown area of most cities. Areas of dense skyscrapers.

k. **GP / Critical Infrastructure locations.** Locations of GP and Critical Infrastructure should be identified prior to operations and during Flight (where practicable), and where necessary, implement appropriate risk controls to eliminate or minimise risk SFARP. Identified locations should be made available to the RP on the UA control software or on an equivalent mapping display.

AMC2 UAS.35(g)3.ii – Defining planning criteria (AUS)

a. The UAS Operator should define the criteria for use by RPs during mission planning in OIP for:

i. ensuring the area does not exceed the max permissible people at risk densities

ii. identifying GP and CI locations

iii. determining avoidance criteria.

AMC3 UAS.35(g)3.ii – Avoidance criteria (AUS)

a. The UAS Operator should determine and establish safe margins between the UAS and identified GP/CI locations, where practicable. Considerations for determining safe margins should include:

i. max airspeed of the UA

ii. max operational altitude above ground level

iii. UA descent profile under controlled descent or flight termination (eg ballistic descent, glide ratio, drift under parachute recovery systems, debris field)

iv. command and control latency

v. RP reaction time

vi. UA positional accuracy

vii. use of geo-fencing (if available)

viii. Loss of Link routing.

AMC4 UAS.35(g)3.ii – Containment requirements (AUS)

a. The UAS Operator should implement appropriate technical or operational risk controls to ensure no probable single failure of the UAS or any external system supporting the operation leads to an operation beyond the intended area of operations (adjacent area), including:

i. the use of geo-fencing (if available) to contain the UA within the lateral limits of the operating area

ii. the establishment of appropriate safe margins between the operating area and adjacent areas

iii. the immediate end of Flight (eg flight termination) through a combination of procedures/processes and/or available technical means if the UA leaves the area of operations.

iii. in Airspace that excludes non-participating aircraft ▾ AMC1 ▾ AMC2 ▾ GM

AMC1 UAS.35(g)3.iii – Airspace management (AUS)

a. UAS Operators should only operate UAS in Military CTR, Restricted Areas, or Military Operating Areas. The airspace is to be for exclusive use by the UA, or the UA is to be segregated/separated from other participating aircraft.

b. UAS Operators should document airspace management and de-confliction measures in appropriate OIP (eg ATMP, CRE, ACP), including:

i. co-ordination and de-confliction of UAS operations with other aircraft to ensure the UA does not pose a hazard, including safe margins from:

(1) participating aircraft

(2) airspace boundaries.

ii. requirements for communication with the airspace coordination authority, where relevant, as detailed in En Route Supplement Australia (ERSA) or equivalent OIP

iii. requirements for communications with participating aircraft

iv. requirement to notify other airspace users of the intended UA activity.

c. UAS Operators should ensure any documented airspace management and de-confliction measures are endorsed by the relevant airspace management agency.

AMC2 UAS.35(g)3.iii – Safe margins (AUS)

a. UAS Operators should establish safe margins from Airspace boundaries and participating aircraft, including consideration for:

i. credible failure modes of the UAS

ii. maximum airspeed

iii. turn radius at maximum airspeed

iv. command and control latency

v. navigation system redundancy and accuracy (GNSS, altimeters)

vi. technical risk controls (eg geo-fencing)

vii. risk recovery controls (eg parachutes, air brakes, autonomous recovery system, etc)

viii. Lost Link and emergency routing

ix. Flight termination systems and designated Flight termination sites

x. adjacent area activity that may affect UAS behaviour, such as RF emitters

xi. adjacent area activity such as high-density Airspace.

GM UAS.35(g)3.iii – Restricted Areas, Military Operating Areas and Military CTR (AUS)

Military Airspace

a. En Route Supplement Australia (ERSA) and Designated Airspace Handbook (DAH) provide the approval authorities for operations in Military CTR, Restricted Areas (RA) or Military Operating Areas (MOA).

b. A Military CTR may enable the exclusion of non-participating aircraft where there is an active ATC service provided that ATC apply appropriate separation standards to participating aircraft.

c. MOAs that extend into international airspace are not enforceable under international law. Therefore, Defence cannot prevent foreign airspace users from entering such MOA. However, CASA, through DAH, has clearly communicated to:

i. Australian Aircraft, that a MOA places the same restrictions on entry (to that Australian Aircraft) that an RA would

ii. foreign registered Aircraft, that:

(1) Under international law, Australia may not restrict foreign registered Aircraft to enter into a MOA.

(2) However, to ensure the safe navigation of that foreign registered Aircraft, it should not enter the MOA (without contacting the relevant administering authority).

d. Accordingly, UAS operators may use MOAs as an equivalent hazard control to RAs. Defence is obliged under international law to operate UAS with due regard to other airspace users (Chicago Convention Article 3d refers). However, Defence has met its due regard obligations, by constraining any Defence UAS operation (outside Australian territory) to within a MOA.

e. The Civil Aviation Safety Authority – Office of Airspace Regulation may establish temporary RA/MOA where published RA/MOA do not cover the intended area of operation. Requests for temporary RA/MOA are staffed through the Joint Airspace Control Cell (JACC).

Foreign areas equivalent to Military CTRs, RAs and MOAs

f. UAS operators may use foreign airspace where that airspace provides equivalency to Military CTR, RAs and MOAs, if approved by the applicable airspace authority. In such situations, UAS operators will still be required to comply with DASR UAS and any *due regard* obligations.

Non-participating Aircraft

g. Note, if the UAS is contained inside a Restricted Operating Zone (ROZ)—even if that ROZ is within a Military CTR/RA that permits non-participating aircraft; but the ROZ excludes non-participating aircraft—then the UAS operator has met the intent of DASR UAS.35(g)3ii.

iv. with a dedicated RP for each UA

v. that enables RP intervention during all stages of Flight except for Lost Link ▼ AMC

AMC UAS.35(g)3.v – Intervention by the RP (AUS)

a. Intervention refers to an action, command or input by the RP to dictate the UA responses. UAS Operators should ensure the RP can alter the Flight path of the UA, or execute any other suitable actions as necessary, to ensure safe Flight in all situations, except for Lost Link.

4. The UAS Operator must not conduct operations that:

i. occur over an area where a fire, police or other public safety or emergency operation is being conducted without the approval of the person in charge of the operation

ii. create an obstruction to another aircraft

iii. occur in a Prohibited Area or Restricted Area unless approved by the authority controlling the area

iv. occur over an aerodrome runway/movement area without approval from the relevant authority ▼ GM

GM UAS.35(g)4.iv – Aerodrome operators (UAS)

a. En Route Supplement Australia (ERSA) provides contact details for aerodrome operators or airspace controlling authorities.

v. occur in the approach or departure path of a runway, landing area or ship without approval from the relevant authority. ▼ GM

GM UAS.35(g)4.v – Approach and departure paths (UAS)

a. En Route Supplement Australia (ERSA) can be referred to for contact details of aerodrome operators or airspace controlling authorities.

b. ANP3300 provides the authoritative ADF policy WRT operations near Royal Australian Navy vessels.

DASR AMENDMENT RECORD
DCP 2025-0037

DASR CLAUSE: AMC 21.A.253

RATIONALE FOR CHANGE

Amendment to AMC 21.A.253 looks to align regulatory terminology used through DASR 21 Subpart J.
The term “Accountable Manager” is not applicable within Military Design Organisations.
The “Head of Design” refers to the most senior and accountable position within a Military Design Organisation and is therefore the appropriate signatory.

CURRENT REGULATION TEXT

DASR Form 82—Application for Significant Changes to Design Organisation Approval, is to be obtained from the Authority, and completed by the Accountable Manager of the organisation.

The completed form, an outline of the design organisation exposition (handbook), and details of the proposed terms of approval are to be forwarded to the Authority.

REVISED REGULATION TEXT

DASR Form 82—Application for Significant Changes to Design Organisation Approval, is to be obtained from the Authority, and completed by the Head of Design of the organisation.

The completed form, an outline of the design organisation exposition (handbook), and details of the proposed terms of approval are to be forwarded to the Authority.