

Article Information

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Service: Dispute Resolution & Litigation, Regulatory Compliance & Investigations

Sector: Defence, Government

Conducting Defence Space Activities: The Defence Space Safety Regulation 2025

The Defence Aviation Safety Authority has recently released the Defence Space Safety Regulation, establishing a framework for governing Defence space activities.

Background

Australia's Military Aviation Authority, the Defence Aviation Safety Authority, has recently promulgated the *Defence Space Safety Regulation 2025 (DSSR)*, which was published within Volume 2 of the Defence Space Safety Program (DSSP) Manual on 12 December 2025. This Volume sets out the requirements for the management of Defence space safety.

The DSSR establishes safety requirements across Defence space activities and provides the regulatory basis for authorising and overseeing those activities, emphasising the importance of protecting human life.

Below is a summary of the key provisions of the DSSR.

Scope and Applicability (GR.110 & 120)

The DSSR does not apply to all Defence space activities. The following Defence space activities fall within the ambit of the DSSR:

- launch facilities;
- launches and returns; and
- payloads and orbital operations.

As an exception to GR.110(b), the Defence Spaceworthiness Authority (DSA) may declare a Defence space activity to fall beyond the scope of the DSSR where compliance with the DSSR would result in negligible benefit to Defence space safety. The Regulator must be satisfied that application of the DSSR would make, at most, a trivial safety contribution before petitioning the DSA for such a declaration.

Persons subject to the DSSR are:

- members of the Australian Defence Force (ADF);
- Defence employees;
- persons acting as agents of the Commonwealth (Defence); and
- persons within commercial organisations whose contractual arrangements with Defence requires compliance with the DSSR.

Crucially, the issuance of a space activity authorisation under the Australian *Space (Launches and Returns) Act 2018* (Cth) or by an international space authority in respect of a Defence space activity does not preclude the requirements to comply with the DSSR.^[1]

In circumstances where Defence intends to sponsor a foreign space activity within Australian territory, the Defence Space Safety Regulator (Regulator) may consult with the Australian Space Agency (ASA) to identify the relevant Australian regulatory authority for the activity.

Flexibility Provisions and the Legal Framework (GR.130 & 140)

The DSSR allows for some flexibility through GR.130. For example, upon application, the Regulator may approve an exception from DSSR where an equivalent level of protection to that conferred under the DSSR can be achieved by other means. Further, the Regulator may allow a credible and defensible level of military space safety performance supported by the application of sound risk management principles where an equivalent level of protection to that afforded by application of the DSSR cannot be demonstrated.

Additionally, commanders are permitted to deviate from the substantive requirements set out in the DSSR by reason of compelling operational imperatives or emergencies. Where it becomes necessary to exercise such deviations, the Regulator must be notified within a reasonable time after the conclusion of the emergency or compelling circumstances, preferably within 7 days, setting out the required information.^[2] However, these deviations are only permissible where there is insufficient time to seek the Regulator's approval for Alternative Means of Compliance (**AltMoC**) or an Exception.

The flexibility conferred through GR.130 is crucial in distinguishing Defence space activities from other space activities, given that their inherent risks preclude the application of uniform standards.

Notwithstanding this flexibility, the following instruments remain paramount and cannot be overridden or departed from through the DSSR:

- Australian legislation, regulations, rules or bylaws;
- United Nations Treaties ratified by the Australian Government;^[3] and
- Defence regulations or higher-level policies.

Notably, the flexibility provision does not exempt Defence from any duties under the Australian *Work Health and Safety Act 2011* (Cth) (**WHS Act**).

Space Safety Authorisation (GR.200)

A Space Safety Authorisation (**SSA**) must be obtained before commencing any Defence space activity within the scope of the DSSP. An SSA permits the conduct of specific Defence space activities.

Types of SSAs available under the DSSR are as follows:

- launch facilities require a Launch Facility Licence (See DSSR.LFL under Annex A)
- launches and/or returns require a Launch and/or Return Permit (see DSSR.LRP under Annex A)
- payloads and orbital operations require a Payloads and Orbital Permit (see DSSR.POP under Annex A).

For Defence space activities not covered by the above items under Annex A, the Regulator may:

- prescribe supplementary regulations
- grant a bespoke SSA encompassing conduct otherwise precluded or impracticable under the ordinarily available SSAs under Annex A

Where the DSSR directs compliance with the specifications and standards in the Defence Space Safety Program Manual of Standards (**MOS**), those specifications and standards form part of the DSSR. A non-compliance with the MOS constitutes a non-compliance with the Acceptable Means of Compliance (**AMC**) and consequently a failure to meet that regulation. Relevantly, the DSSR defines AMC as "*information published by the Defence Space Safety Regulator to identify a means of meeting one or more requirements of the DSSR*".

Importantly, SSA applications must be in the appropriate manner and form; namely, they must:

- be submitted in writing consistent with Annex A items;
- identify the intended SSA holder;^[4] and
- set out how the SSA Holder is to execute their duties.

Upon examining an application for an SSA, the Regulator may:

- recognise relevant space activity authorisations as contributing to the SSA application; and/or
- impose Conditions or Limitations on the SSA.

The Regulator can exercise powers to cancel an SSA where the following conditions have been met:

- a space facility, if relevant, ceases to be used for space launches;
- in respect of space launches and returns, all space activities encompassed by the SSA have ceased or have been completed;

- for payloads and orbital operations:
 - space objects no longer present space safety hazards; or
 - Defence no longer retains any liability for the space objects and associated operations.

Conducting space activities (GR.220)

Defence space activities within the scope of the DSSP must not commence until the commanders and managers responsible have:

- ensured the activity is covered by a relevant SSA; and
- implemented controls necessary for compliance with all Conditions and Limitations within the relevant SSA.

Precautions are crucial to conducting Defence space activities; the DSSR imposes the standard of 'so far as is reasonably practicable' (**SFARP**) within provisions relevant to safety.

Relevantly, any safety risks to people must be eliminated or minimised SFARP. In addition to an SSA, an approval may be required for certain Defence space activities, including the following:

- approvals from government departments; and
- approvals from the Defence's internal regulators.

(the above is not intended to be an exhaustive list)

During the course of the space activity, the responsible commanders and managers must:

- continue to comply with obligations in GR.220(a) relating to conducting Defence space activities;
- continue to meet the requirements of the DSSR;
- advise the SSA Holder where a planned activity might require amendments to the SSA; and
- recognise that space activity risks beyond the scope of the DSSP may require management, including but not limited to:
 - damage to property, heritage sites and the environment;
 - achievement of Defence's space capability requirements; or
 - health and safety beyond the DSSP scope.

As aforementioned, the commander must also notify the Regulator if flexibility provisions are invoked for a compelling operational imperative or emergency.

Accidents and Investigations (GR.300)

Should an accident involving a Defence space object eventuate, the DSA may order an independent safety investigation. Such an investigation will require cooperation from those involved in the space activity, including the SSA Holder.

Oversight and Enforcement (GR.400)

The SSA Holder must meet their cooperation duties through:

- granting the Regulator access to staff and data as deemed necessary to support space safety assurance; and
- cooperate with the Regulator insofar as assuring compliance with the DSSR.

Investigation findings - non-compliance with applicable DSSR requirements

Where there is objective evidence of non-compliance with applicable DSSR requirements, the Regulator will issue findings of the investigation. Such findings are categorised as follows:

- Level 1 Finding: any non-compliance presenting credible serious hazards to space safety, and safety controls are entirely absent, or the ones which do remain in place are not effective to address the hazard
- Level 2 Finding: any non-compliance presenting credible hazards but some safety controls do remain in place notwithstanding their minimal effectiveness in addressing the hazard
- Level 3 Finding: any non-compliance or a potential problem that would likely manifest into a credible hazard to space safety *if left untreated*.

Upon receipt of any Level 1 or 2 Findings, the SSA Holder must satisfy the Regulator (within an agreed period of time) of the following:

- implementation of an immediate action to alleviate or otherwise minimise the safety risk resulting from non-compliance;
- identification of root causes of the non-compliance;
- putting forward a corrective action plan; and
- demonstrating effective implementation of that corrective action plan.

As for Level 3 Findings, the SSA Holder must address this internally through their own systems, and implement responsive action insofar as necessary to address the issues.

Suspension of SSAs

SSAs may be suspended wholly or in part by the Regulator upon:

- the SSA holder failing to comply with the actions identified in GR.430(a);
- a contravention of a Condition or Limitation on the SSA; and/or
- the Regulator deems the SSA should be suspended for reasons associated with elevated safety risks to ADF members or other persons.

Key Takeaways

When undertaking Defence space activities, protection of human life is a paramount consideration. SSA Holders and Commanders bear direct accountability for ensuring safety compliance throughout the life of a space activity.

Importantly, any Defence space activities within the scope of the DSSR must not commence without an appropriate SSA in place.

While the DSSR confers a level of flexibility, this flexibility only exists within tightly controlled risk-based parameters; in allowing this flexibility, DASA acknowledges that the Defence will sometimes operate under risk levels that exceed those ordinarily accepted by civil space authorities. Critically, this flexibility does not reduce Defence's statutory requirements under the WHS Act.

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[1] Note: The term 'space activity authorisation' encompasses any formal authorisation, approval, instrument, permit, licence, or similar artefact issued by a government authority.

[2] This ordinarily includes a description of the emergency or capability imperative necessitating the exercise of the GR.130(c) flexibility provision; the regulation or SSA Condition or Limitation that impeded that capability; the alternative approach adopted and associated steps taken to eliminate or minimise safety risks so far as is reasonably practicable (**SFARP**); and the actions taken or planned to return the system to its previous DSSR-compliant state.

[3] See, eg, *Convention on International Liability for Damage Caused by Space Objects 1972*; *Convention on Registration of Objects Launched into Outer Space 1972*; *Treaty on Principles Governing the Activities of States in the Exploration and Used of Outer Space, including Moon and Other Celestial Bodies 1967*; and the *Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space 1968*.

[4] The SSA Holder is the person in a role responsible for the Space Safety Authorisation, accepting the rights and obligations for the space activity.

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