

3. Independent Safety Assurance

Introduction

Definitions

1. Space Safety is the state in which continuing processes of hazard identification and risk management ensure that risks to the health and safety of personnel arising from space activities are eliminated or otherwise minimised so far as is reasonably practicable (SFARP).
2. Independent safety assurance refers to the Defence Spaceworthiness Authority's (DSA's) confidence that the space safety objective stated above is met in the conduct of Defence space activities. Independent space safety assurance is the product of activities that are separate from space safety risk management processes and decisions, which are the responsibility of commanders and managers. Independent safety assurance activities, or their absence, do not alter commanders' and managers' statutory obligation to ensure safety.

Purpose

3. This chapter establishes requirements and provisions for the conduct of independent space safety assurance activities within the Defence Space Safety Program (DSSP).

Functions of the Regulator

4. The Defence Space Safety Regulator is accountable for the conduct of four independent safety assurance activities as presented below.

Prescribe and interpret policy

5. The Defence Space Safety Regulator is to prescribe and interpret space safety management policy, inclusive of Defence Space Safety Regulations (DSSR) and related standards.
6. The Defence Space Safety Regulator must develop and update the DSSR, making sure that:
 - a. the DSSR do not contradict any Commonwealth legislation
 - b. the DSSR do not contradict any international space Treaty which Australia has ratified or to which it is a signatory
 - c. the DSSR align, where practicable, with the policies and regulatory systems of the Australian Space Agency (ASA)
 - d. the DSSR promote a generative safety culture in the regulated community
 - e. the DSSR conform to the requirements of Chapter 4 of this Volume

- f. the DSA is afforded oversight of DSSR amendments that may appreciably increase the compliance burden or appreciably reduce space safety.
7. The Defence Space Safety Regulator must issue standards where required for the implementation of the DSSR. Such standards must align with contemporary good practice where practicable, leveraging worldwide experience in the design, construction, maintenance and operation of space objects and launch facilities. In the event an issued standard is not fully compatible with a Defence capability imperative, DSSR flexibility provisions will allow the risk management of any safety effects.
8. The Defence Space Safety Regulator must issue supporting material to promote understanding of, and compliance with, the DSSR. Such supporting material may include an acceptable means to comply with the DSSR.
9. When requested, the Defence Space Safety Regulator must provide authoritative interpretation of the DSSR and advice regarding DSSR compliance. Such interpretation and advice must not prescribe a particular course of action with respect to the management of space safety unless there is evidence that the safety level of the system may otherwise be compromised.
10. The Defence Space Safety Regulator must establish transparent procedures for developing and issuing space safety policy, standards and supporting material. Such procedures should include appropriate provisions for consultation with relevant regulated entities during the development process, and align with Australian Government regulatory impact guidelines.

Issue space safety authorisations

11. The Defence Space Safety Regulator is to issue and, if required, impose conditions on, amend, suspend or revoke space safety authorisations (SSAs) for Defence to operate space launch facilities or launch/operate/return space objects.
12. The Defence Space Safety Regulator may issue all SSAs, including permits, licences and similar artefacts, as necessary for the implementation of the DSSR. An SSA must only be issued when the applicant has shown, to the Regulator's satisfaction, that the safety performance requirements of the DSSR have been met.
13. The Defence Space Safety Regulator will issue the SSA to a Defence appointment. For space activities being conducted by a Defence organisation, the SSA holder must have the authority and resources to implement the continuing management responsibilities of the SSA. For space activities being conducted by a non-Defence organisation (for example, an agent of Defence or a foreign military), the Defence sponsor must identify an SSA holder with the capacity to ensure the initial and ongoing requirements of the SSA are met.
14. The Defence Space Safety Regulator may leverage the authorisations issued by other civil and military space safety authorities and recognise their independent safety assurance efforts, in order to promote efficiency and interoperability. Recognition must only be

permitted when it can be demonstrated that the candidate authority applies credible and defensible space safety regulation, and their authorisation is relevant to Defence's context.

Conduct oversight and enforcement

15. The Defence Space Safety Regulator is to conduct oversight and enforcement activities to assure ongoing compliance with the DSSR and the continued validity of SSAs.

16. The Defence Space Safety Regulator's oversight and enforcement policies, procedures and decisions must:

- a. be transparent and evidence-based
- b. ensure compliance is always assessed in the context of it being a step towards achieving a particular safety outcome
- c. establish requirements that any response to a non-compliance is effective, fair, proportional and graduated
- d. promote a generative safety culture that supports voluntary reporting of safety issues, underpinned by a just culture that does not focus on apportioning blame (but nonetheless is intolerant of actions that are negligent or cause deliberate harm).

17. The Defence Space Safety Regulator must establish transparent procedures for making enforcement decisions. These procedures must:

- a. establish requirements so that any representatives from the entity, or any other party with a direct concern, who are subject to the enforcement decision are considered and addressed in the decision
- b. provide for notification of the decision to all affected entities
- c. ensure that the decision notifications contain reasons for the decision.

18. The Defence Space Safety Regulator may amend, suspend or revoke any SSA when the conditions applying to its issue are no longer fulfilled, or the entity holding the authorisation fails to fulfil the obligations imposed on it by the DSSR.

19. Procedures must be established for when immediate action is to be taken by the Defence Space Safety Regulator to react to a safety problem, and to inform the relevant interested parties of the action they are to take. Where practicable, the Defence Space Safety Regulator must notify the DSA prior to any enforcement action that may appreciably impact Defence space capability.

20. The requirements of this manual do not prevent the Defence Space Safety Regulator from immediately addressing any space safety risk or issue of which they become aware.

Promote space safety

21. The Defence Space Safety Regulator is to promote an understanding of, and compliance with, the DSSR through education and training. Improved space safety performance is also to be promoted through the dissemination of safety information.
22. Key objectives of space safety promotion must include:
- a. fostering the maintenance and improvement of safety
 - b. supporting the development of a generative safety culture
 - c. increasing awareness of prominent safety issues
 - d. supporting the implementation and maintenance of an effective risk management system.

Accident investigation

23. The independent investigation of Defence space activity accidents, with the aim of identifying causes and preventing further accidents, is a critical element of the DSSP. However, since investigations may also examine the performance of the space safety regulatory system, the conduct of accident investigations is not within the remit of the Defence Space Safety Regulator.

24. Instead, as the custodian of the DSSP, DG DASA will establish a system for the independent investigation of accidents involving Defence space objects. This system will preserve the independence of the investigatory function, drawing on external expertise including the ASA.

DSSP Administration

DSSP Manual

25. The Defence Space Safety Regulator must manage the DSSP Manual on behalf of the DSA.
26. The DSA retains approval authority for DSSP Manual Volume 1. Upon request from the regulated community, the Defence Space Safety Regulator may provide clarifying information on the content.

Harmonisation

27. The Defence Space Safety Regulator must establish arrangements with the ASA and other relevant Australian Government agencies in order to harmonise the Defence and civil space safety frameworks where practicable.

Confidentiality

28. The Defence Space Safety Regulator must take necessary measures to ensure appropriate confidentiality of information received. Information must be handled in accordance with the *Privacy Act 1988*, the *Freedom of Information Act 1982* and Defence policies applicable to that information. Subject to satisfying security requirements,

information subpoenaed or otherwise required by a judicial process must be provided in accordance with the form of the notice issued to Defence that requires the information.

Defence space object register

29. The Defence Space Safety Regulator must maintain a register of Defence space objects.

Administrative responsibilities and provisions

30. The Defence Space Safety Regulator must take all necessary steps, including the issue of internal administrative instructions and the publication of respective information, to ensure proper functioning of the Regulator's staff in accordance with this Chapter.

31. The Defence Space Safety Regulator may delegate functions and authorities, subject to robust internal control mechanisms, to suitably qualified and experienced personnel, including:

- a. Defence Space Safety Regulator's staff
- b. Defence staff
- c. ASA staff
- d. Industry staff, where there is a contractual mechanism to ensure the competent execution of the delegation.

32. Any delegation of functions and authorities per paragraph 31 must specify limitations on any further delegation of functions and authorities by the delegate.