



Australian Government

AUSSPREDPLAN 2017

AUSTRALIAN GOVERNMENT
SPACE RE-ENTRY DEBRIS PLAN

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AUTHORITY

The Australian Plan for Space Re-Entry Debris (AUSSPREDPLAN) is prepared and maintained by Emergency Management Australia (EMA), a division of the Department of Home Affairs. It provides for the coordination of Australian Government support to States and Territories in response to a space debris re-entry threat. AUSSPREDPLAN is supported by the Australian Government Disaster Response Plan (COMDISPLAN).

Australian Government agencies should develop their own procedures and arrangements to support space debris re-entry operations.

AUSSPREDPLAN supersedes AUSCONPLAN-SPRED. All copies of AUSCONPLAN-SPRED should be replaced with AUSSPREDPLAN 2014.

AMENDMENTS

Recommendations for amendments to the plan can be forwarded at any time to:

Director General
Emergency Management Australia
Department of Home Affairs
PO Box 25 Belconnen ACT 2616

Amended versions of AUSSPREDPLAN will be disseminated to Australian Government and state and territory agencies as appropriate.

VERSION DETAIL

In December 2017 AUSSPREDPLAN underwent an administrative review to reflect Machinery of Government changes. AUSSPREDPLAN 2017 supersedes all previous versions and has been endorsed by DGEMA on 20 December 2017.

SECTION - 1. INTRODUCTION

1.1. INTRODUCTION OVERVIEW

1.1.1. This section details the aim, scope and guiding principles of AUSSPREDPLAN.

1.2. AIM

1.2.1. The aim of AUSSPREDPLAN is to outline the Australian Government communication and information flow arrangements to manage the risk posed by re-entering space debris which may impact Australia, and how Australian Government support to any space debris impact will be provided and managed.

1.3. SCOPE

1.3.1. The plan outlines how the Australian Government will support the states and territories in the event that space debris should impact within their jurisdictions. It also details how this support should be requested and how it will be managed. The plan identifies roles and responsibilities for key Australian Government agencies and committees in supporting the response to space re-entry debris.

1.4. GUIDING PRINCIPLES

- 1.4.1. This plan should be read in conjunction with the Australian Government Crisis Management Framework (AGCMF) to clarify the responsibilities of the key Australian Government agencies involved and how information should flow between them.
- 1.4.2. Under AUSSPREDPLAN, the Department of Home Affairs through Emergency Management Australia (EMA) is the lead Australian Government agency responsible for coordinating an Australian Government response to a space re-entry debris incident.
- 1.4.3. Related Australian Government plans will support the Australian Government either as part of standing arrangements or, where additional Australian Government resources are required, by activating the Australian Government Disaster Response Plan (COMDISPLAN), or other Australian Government or national emergency plans.
- 1.4.4. The arrangements within AUSSPREDPLAN are not dependent on, nor should they be a hindrance to, the activation of other relevant plans and standing arrangements.
- 1.4.5. States and territories will manage the response to any space debris re-entry events within their borders. The Australian Government has an obligation for the return of space debris to the launching nation under international agreements.

SECTION - 2. ROLES AND RESPONSIBILITIES

2.1. ROLES AND RESPONSIBILITIES - OVERVIEW

- 2.1.1. This section details the roles and responsibilities of Australian Government and state and territory agencies and other relevant organisations in managing the risk posed by re-entering space debris.
- 2.1.2. The United States Strategic Command (STRATCOM), Japanese Aerospace Exploration Agency (JAXA) and other agencies monitor the decaying orbit of space debris and where possible provide advice to the Department of Defence (Defence) on likely re-entry paths and risks to Australian interests.
- 2.1.3. Defence will pass on information related to re-entries and associated risks to EMA through the Australian Government Crisis Coordination Centre (CCC).
- 2.1.4. EMA will advise relevant Australian Government agencies and states and territories of the details of the re-entry and associated risk.
- 2.1.5. The Director General EMA or their delegate is responsible for authorising phase changes for this plan.
- 2.1.6. COMDISPLAN remains the mechanism for the Australian Government to provide non-financial assistance to an affected state or territory.

2.2. EMERGENCY MANAGEMENT AUSTRALIA – DEPARTMENT OF HOME AFFAIRS

- 2.2.1. Emergency Management Australia (EMA):
 - 2.2.1.1. Provide a central point of communication between the Australian Government and state and territories in managing the associated risks from space debris re-entry, via the CCC.
 - 2.2.1.2. Establish a Crisis Coordination Team (CCT) to coordinate the Australian Government actions for space debris re-entry from the CCC.
 - 2.2.1.3. As required, convene an Australian Government Planning Group (AGPG) made up of relevant agencies to assist in response planning, information dissemination and clarifying any issues raised.
 - 2.2.1.4. Activate COMDISPLAN if required.
 - 2.2.1.5. Coordinate Australian Government non-financial assistance to the states and territories under the formal request arrangements prescribed in COMDISPLAN.
 - 2.2.1.6. If required, develop an Action Plan in consultation with relevant Australian Government agencies, jurisdictions and other relevant organisations.

2.3. AUSTRALIAN RADIATION PROTECTION AND NUCLEAR SAFETY AGENCY (ARPANSA)

- 2.3.1. In the event of a nuclear or radiological emergency, provide radiation protection advice to all levels of Government and to the public.
- 2.3.2. If requested, support state and territory governments by providing public health and environmental protection advice and/or services to governmental decision makers, the public and the wider scientific community. This may include:
 - a. location and characterisation of likely sources of radiological or nuclear threat
 - b. collection and monitoring of measurement data (such as, but not limited to, from field teams or fixed monitoring)
 - c. prediction of dispersion of radiological material
 - d. technical analysis and assessment of simulated and actual data and
 - e. provision of advice in terms of health environment.

2.4. AUSTRALIAN NUCLEAR SCIENCE AND TECHNOLOGY ORGANISATION (ANSTO)

- 2.4.1. Provide expert scientific and technical advice as necessary.
- 2.4.2. Provide specialist field deployable resources and assets to support space debris re-entry operations.

2.5. BUREAU OF METEOROLOGY (BOM)

- 2.5.1. Provide advice and products, if required, on weather related issues and conditions which may affect the re-entry and impact of space debris and the risk posed.

2.6. DEPARTMENT OF DEFENCE (DEFENCE)

- 2.6.1. Coordinate the receipt of information on possible space debris re-entry events and advise to EMA, through the CCC, in a timely manner.
- 2.6.2. In accordance with Defence Assistance to the Civil Community (DACC) policy and procedure, be prepared to provide resources to assist space debris re-entry response and recovery operations.

2.7. DEPARTMENT OF FOREIGN AFFAIRS AND TRADE (DFAT)

- 2.7.1. Provide advice on diplomatic issues.
- 2.7.2. Liaise with relevant foreign governments on space debris re-entry, providing information where relevant, and advise EMA and other relevant agencies of information gained through this process.
- 2.7.3. Notify the launch state and/or UN Secretary-General where appropriate.

2.8. DEPARTMENT OF INDUSTRY (SPACE LICENSING AND SAFETY OFFICE) (SLASO)

- 2.8.1. Provide advice on conventions and agreements detailed within the “United Nations Treaties and Principles on Outer Space”.
- 2.8.2. In the event of an accident, incident or emergency associated with space activities authorised under the Space Activities Act (1998), the Minister of the Department of Industry shall appoint a person as the Investigator (the Act, s88). The Investigator has powers in general (the Act, s91) and on site (the Act, s99). Offences under the Act are defined in general (the Act, s92) and on site (the Act s103). Custody of objects relating to accidents and incidents, including debris, is defined (the Act, s94), together with authorities and relationships to other powers (the Act, s97).

2.9. GEOSCIENCE AUSTRALIA (GA)

- 2.9.1. Provide advice on tracking and mapping space debris re-entry, impact sites and areas of risk.

2.10. THE DEPARTMENT OF PRIME MINISTER AND CABINET (PM&C)

- 2.10.1. Secretary PM&C or the Associate Secretary provide situation briefs to the Prime Minister and, if required, the Cabinet.
- 2.10.2. If convened, the Associate Secretary, PM&C chairs the Australian Government Crisis Committee (AGCC) or National Crisis Committee (NCC) meetings, as outlined in the AGCMF.

2.11. AUSTRALIAN STATE AND TERRITORIES

- 2.11.1. Respond to the space re-entry debris within their state or territory.

2.12. AUSTRALIAN GOVERNMENT PLANNING GROUP (AGPG)

- 2.12.1. The AGPG, chaired by EMA, is made up of representatives from relevant Australian Government agencies, jurisdictions and other organisations as required.
- 2.12.2. The role of the AGPG is to evaluate, forward plan and provide advice on any operational and technical issues related to AUSSPREDPLAN activation.
- 2.12.3. If required, the AGPG will contribute to the development of the Action Plan.
- 2.12.4. Members of the AGPG will be advised of meetings/teleconferences via an email from the CCC.
- 2.12.5. Members of the AGPG may be called upon to act as a Liaison Officer as part of a Crisis Coordination Team (CCT) set up in the CCC.

SECTION - 3. CONCEPT OF OPERATIONS

3.1. RESPONSE OVERVIEW

3.1.1. This section details the activation process and phases of AUSSPREDPLAN for the notification to Australian Government agencies and state and territories of the risk imposed by re-entering space debris.

3.2. RESPONSE PHASES OUTLINE

3.2.1. AUSSPREDPLAN consists of 4 phases:

- Standby – default
- Watching – when an object is identified as a potential re-entry risk
- Warning – when an object is likely to re-enter and impact on Australia or its Territories
- Initial Impact – when an object has impacted Australia or its territories

Post impact activity is managed under relevant state and territory arrangements.

3.2.2. AUSSPREDPLAN is maintained in STANDBY phase as the default condition.

3.2.3. AUSSPREDPLAN phase change follows advice from relevant international space agencies, through Defence, regarding decaying orbit of space debris that may pose a risk to Australian Interests.

3.2.4. EMA, through the CCC, will advise all stakeholders on AUSSPREDPLAN phase changes.

3.3. RESPONSE PHASES AND RELATED ACTIVITIES

3.3.1. STANDBY Phase

3.3.1.1. STANDBY Phase is the default phase of AUSSPREDPLAN.

3.3.1.2. Under STANDBY the following activities are commenced and are likely to continue across all Phases:

- Monitoring of potential situations
- Planning for potential responses

3.3.1.3. When the all clear is given or the event is concluded, the plan will default to Standby Phase.

3.3.2. WATCHING Phase:

- 3.3.2.1. Relevant international space agencies monitor the decaying orbit of space debris and provide advice to Defence on likely re-entry paths and risks to Australian interests.
- 3.3.2.2. Defence will pass on information related to space debris re-entry and associated risks to EMA, through the CCC.
- 3.3.2.3. EMA, through the CCC, will advise states and territories and Australian Government agencies of the details of the re-entry and associated risk, and if required convene relevant meetings. EMA, through the CCC, will notify states and territories through the agreed single point of contacts for emergency notifications.
- 3.3.2.4. Relevant agencies will monitor the situation and undertake their contingency planning.
- 3.3.2.5. DFAT shall maintain contact with the relevant Government/s through diplomatic channels and provide information where relevant, and advise EMA, through the CCC, of any information gained through this process.
- 3.3.2.6. Australian Government agencies will identify their capacity to support space debris re-entry operations and place elements on alert as required.
- 3.3.2.7. States and territories will identify their potential requirements for Australian Government non-financial assistance in the event an impact occurs and advise EMA, through the CCC.
- 3.3.2.8. EMA will advise the AGPG of potential requests for assistance in support of state and territory operations.
- 3.3.2.9. EMA will update and disseminate risk assessments or situation reports as new information is obtained and analysed.

3.3.3. WARNING Phase:

- 3.3.3.1. On notification from the relevant international space agency that the space debris is likely to re-enter and impact within Australia or its territories, Defence or relevant international space agency will immediately notify the CCC.
- 3.3.3.2. EMA, through the CCC, will advise Australian Government agencies and states and territories through the agreed single point of contacts for emergency notifications.
- 3.3.3.3. EMA, through the CCC, will confirm the readiness of all agencies to respond to an impact and will report through the CCC to the relevant agencies, the readiness of Australian Government agencies and the states and territories to respond to the impact.
- 3.3.3.4. Defence will provide EMA with regular situation reports on the progress of the re-entry of the space debris.

- 3.3.3.5. EMA, through the CCC, will provide regular situation reports on the progress of the re-entry of the space debris and an update on the response capability and capacity to Australian Government agencies, the AGPG and states and territory single points of contact.
- 3.3.3.6. The Australian, State and Territory Government's may implement an observer program to report on re-entry sightings and provide information to the CCC on likely impact sites for the duration of the re-entry period.
- 3.3.3.7. Reports of debris impact sightings are to be reported to EMA who will collate and analyse reports in conjunction with the AGPG and consider potential requests for assistance from the state or territory.
- 3.3.3.8. If the re-entry does not affect Australian territories or region of interest, EMA will notify all agencies to stand down and the plan will revert to Standby Phase.

3.3.4. INITIAL IMPACT Phase:

- 3.3.4.1. All debris impact sites are to be treated as a serious Hazardous Materials (HAZMAT) situation with appropriate protocols applied until expert advice recommends otherwise
- 3.3.4.2. First response authorities are to:
 - isolate the site;
 - manage the site as a HAZMAT situation;
 - secure a safe exclusion zone around the debris to contain it;
 - consider decontaminating and/or quarantining of members of the public, personnel and equipment that have come into contact with the debris or whom are within proximity of the impact site.
- 3.3.4.3. State and territory hazardous materials experts will analyse the debris and impact areas and provide advice on whether a HAZMAT situation exists and any ongoing management requirements. The Australian Government will provide specialist detection support, including HAZMAT experts, if required.
- 3.3.4.4. All confirmed or suspected debris impact sites are to be reported to EMA.
- 3.3.4.5. EMA will notify the AGPG of the impact sites, the situation and any requests for assistance or likely requests.
- 3.3.4.6. Australian Government support can be deployed upon a request from a state or territory to assist in recovery of space debris.
- 3.3.4.7. Any requests for Australian non-financial assistance from the states and territories will be managed under COMDISPLAN.

SECTION - 4. COORDINATION DETAILS

4.1. COORDINATION OVERVIEW

4.1.1. This section outlines the coordination arrangements in relation to AUSSPREDPLAN.

4.2. COORDINATION ARRANGEMENTS

- 4.2.1. EMA, through the CCC will notify the AGPG and other Australian Government agencies of any proposed or received requests for assistance as information is received.
- 4.2.2. The AGPG will evaluate and provide advice on any operational response and technical issues related to capability and capacity associated with any requests received.
- 4.2.3. EMA will coordinate the provision of non-financial assistance provided by Australian Government to the affected state or territories.
- 4.2.4. All Australian Government agencies providing support to impacted states and territories are to provide regular situation reports to EMA, through the CCC.
- 4.2.5. EMA, through the CCC, will provide regular reports on the progress of Australian Government support to Australian Government agencies and the impacted states and territories.

SECTION - 5. COMMUNICATIONS/REPORTING

5.1. COMMUNICATION/REPORTING OVERVIEW

5.1.1. This section outlines the communication and reporting arrangements relating to an AUSSPREDPLAN activation.

5.2. SITUATION REPORTS

- 5.2.1. On receipt of advice from the CCC of a likely space debris re-entry, all Australian Government agencies, states and territories are requested to provide regular situation updates to EMA as agreed for that specific event.
- 5.2.2. The CCC will issue regular Australian Government situation updates.
- 5.2.3. If for any reason a state or territory is contacted directly by the launching agency or country, the relevant state or territory will refer the information to the CCC.

SECTION - 6. MEDIA AND COMMUNICATIONS

6.1. MEDIA AND COMMUNICATIONS OVERVIEW

6.1.1. This section outlines the arrangements for public communication and talking points in relation to an AUSSPREDPLAN activation.

6.2. MEDIA ARRANGEMENTS

6.2.1. The CCC Crisis Communications cell will be the lead, with assistance from other relevant agencies and the states and territories for coordinating and distributing public communications and talking points.

6.2.2. Individual Australian Government agencies can report on their participation and role in the operation based on the approved speaking notes. Where appropriate DFAT can provide talking points to relevant overseas posts for engaging with foreign government/media.

6.2.3. States and territories should develop their own approved media engagement strategy and provide EMA, through the CCC, with a copy of all issued releases.

SECTION - 7. LIAISON OFFICERS

7.1. LIAISON OFFICERS OVERVIEW

7.1.1. This section outlines the Liaison Officer arrangements relating to an AUSSPREDPLAN activation.

7.2. LIAISON OFFICER ARRANGEMENTS

7.2.1. If deemed appropriate by the states and territories, and at their request, EMA will deploy Liaison Officers to the relevant emergency operations centre in each of the states and territories impacted by debris to provide advice and support in relation to requesting Australian Government assistance.

7.2.2. Nominated Liaison Officers from Australian Government agencies and other organisations may be deployed to the CCC or other locations to better coordinate activities and promote interdepartmental communication.

7.2.3. If required, an EMA liaison officer will be deployed to accompany any Australian Government deployed capabilities, as consistent with the arrangements prescribed within COMDISPLAN.

SECTION - 8. FINANCIAL ARRANGEMENTS

8.1. FINANCE OVERVIEW

8.1.1. This section outlines the financial arrangements relating to AUSSPREDPLAN.

8.2. FINANCIAL ARRANGEMENTS

8.2.1. Australian Government agencies and states and territories are responsible for meeting costs associated with their roles and responsibilities in responding to a space re-entry debris incident as detailed in AUSSPREDPLAN.

8.2.2. Expenditure for Australian Government agencies is in line with the AGCMF.

8.2.3. The Australian Government does not normally seek financial reimbursement from jurisdictions for assistance provided under COMDISPLAN. However, when Australian Government assistance is provided for tasks not directly related to the safety of life and property or that could be handled by jurisdiction resources (e.g. clean-up teams) the Australian Government may seek reimbursement from the affected jurisdiction.

8.2.4. Where an agency is tasked to provide a response capability, the criteria for cost recovery will be clearly defined within the formal task request. Any ambiguity relating to reimbursement should be clarified prior to acceptance of tasking.