

Australia's **Satellite Utilisation** Policy

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1. Strengthening Australia's Use of Space

Australia aims to achieve on-going, cost-effective access to the space capabilities on which the nation relies now and in the future. Space capabilities already enable Australian telecommunications, emergency management, weather forecasting, banking, transport, environmental management and national security applications. The purpose of this policy is to articulate Australia's space interests and objectives, identify existing and emerging opportunities and Australia's competitive advantages, and prepare the nation to meet future challenges effectively.

Space capabilities mean satellites in orbit — whether foreign or Australian — as well as the ground systems and expertise to access satellite data and transform it into useful information for Australian users. Satellites take images and make measurements, relay communications and send positioning signals from a vantage point in orbit around Earth. Ground-based systems include satellite dishes for data downlink, computing facilities for storing and interpreting data, and domestic expertise to source, interpret and apply the data to meet Australia's national priorities. Satellites and ground systems together deliver Australia the space information on which we rely.

In the short term, most Australian needs will be met by sharing the in-space capabilities of commercial companies or international partners who own and operate the satellites. Increasingly, international capabilities are not provided for free, and Australia must contribute selectively to prioritised international missions if the nation is to benefit from the information they provide. The most effective contributions Australia can make are nationally coordinated offers in areas of niche Australian strength, particularly in ground infrastructure and in the application of space information to achieve cost-effective outcomes.

In the longer term, there are both opportunities and challenges in Australia's use of space. The integration of space capabilities as an enabling technology in Australian industries such as agriculture, mining and telecommunications will increase, with associated economic and social benefits. This policy takes initial steps to developing and retaining the domestic expertise and infrastructure to take full advantage of these opportunities. At the same time, the space environment is becoming congested, which brings risks to those increasingly important space capabilities. This policy develops Australian capabilities to actively participate in solving these challenges and fully realise the coming opportunities presented by space.

The Australian Government took important steps towards developing a coordinated space policy in releasing the *Principles for a National Space Industry Policy*. The principles are:

- 1. Focus on space applications of national significance
- 2. Assure access to space capability
- 3. Strengthen and increase international cooperation
- 4. Contribute to a stable space environment
- 5. Improve domestic coordination
- 6. Support innovation, science and skills development
- 7. Enhance and protect national security and economic wellbeing

Australia's Satellite Utilisation Policy closely follows the *Principles for a National Space Industry Policy*, while replacing them as a statement of Australia's objectives and direction for civilian space activities.

Australia's Satellite Utilisation Policy does not commit Australia to human spaceflight, domestic launch capabilities or to the exploration of other planets. Instead, the policy safeguards interests closer to home, by recognising that space capabilities enhance services Australians depend on and seeking to protect and enhance our access to those capabilities.

2. Why should Australia be involved in space?

Australia's ongoing social, environmental and economic well-being and our nation's security depend on access to space-based systems. Australia relies to a substantial degree on international space systems to support critical civilian and national security functions. In the past, Australia accessed international space systems in a fragmented fashion, depending on geographic advantages or the goodwill of other nations. That approach must be updated for two reasons. First, Australia's dependence on space systems has increased, making access to space capabilities more important. Second, the suppliers of space capabilities are changing, and relying solely on the countries who have supplied capabilities in the past means Australia

Australia depends on space capabilities, but continuing to gain access to those capabilities into the future is a challenge

will miss out on valuable opportunities. Australia must be better coordinated and more active in its space engagement to secure the space capabilities on which we rely now and into the future.

Australia has made progress towards improving space capabilities Australia has recognised its space dependencies in recent years. The Australian Space Research Program was an important initiative to unify the Australian space industry and research communities. The establishment of a Space Policy Unit and the development of the *Principles* also helped domestic coordination and has improved Australia's international engagement on space issues. This policy is the next step in coordinating Australian space issues domestically and engaging internationally.

Space capabilities help to meet Australia's national challenges. Satellites are already used to make Australian industries more productive and more competitive. Over four billion dollars of GDP is derived from space capabilities. The areas of benefit are diverse. Satellite imagery is an essential component of daily weather prediction. Seasonally, satellite imagery helps mitigate agricultural threats by monitoring potential habitats for pests. Space-based

Space capabilities are already important for economic growth

positioning systems allow high-efficiency transport and logistics, underpin critical national infrastructure, and enable a new era of location-based services. Communication satellites boost productivity by providing faster communication speeds in remote areas.

Space capabilities are the only way to effectively monitor Australia's environment

Space also strengthens Australia's environmental stewardship. Australia's environmental responsibilities extend beyond the Australian land mass to its oceans and territories, including almost half of Antarctica. Most of this area is difficult to access, and information can only be cost-effectively gathered by using satellites. A joint report from the Australian Academies of Science and Technological Sciences and Engineering called space measurements "the single most important and richest source of environmental information"

for Australia." Effective domestic environmental regulation uses space-derived data for monitoring and enforcement. Globally, satellite observations underpin cooperative international environmental strategies.

Australia's safety and security are dependent on space capabilities. In the civilian sphere, real-time images, positioning and communications from space save lives during natural disasters. Australia already uses satellite data as part of a multi-layered approach to guard against biosecurity threats. National security is increasingly reliant on information, services and options provided by space-based capabilities. Security, intelligence, law enforcement and border security agencies use space capabilities to plan and conduct activities that maintain a safe and secure Australia. Space

Space capabilities protect Australia against threats and help to manage disasters

capabilities are increasingly important aspects of critical infrastructure assets, networks and supply chains.

Space capabilities are an important area of innovation for Australia

Space applications will help Australia grow through innovation. Faster, earlier bushfire detection from space can help prevent loss of life and property. Space-based positioning technologies allow centimetre-level positioning accuracy, increasing productivity in many sectors including resources, construction and agriculture. Satellites can also help farmers pinpoint

diseased crops, or comprehensively measure artesian water supplies. With its low population density and smart workforce, Australia has much to gain from innovations using space capabilities.

As Australia's reliance on space capabilities grows, so does the importance of maintaining access to the space capabilities. Future access is uncertain because the satellites on which Australia relies are reaching the end of their life-spans, and new satellites are not always replacing them. The supply of space capabilities is dynamic, and nearly forty percent of the civilian earth-observing satellite information Australia relies on has a high risk of not being provided within the next five years. Alternative sources of supply may be available by actively engaging non-traditional partners. While a passive approach has served Australia in the past, Australia must now develop its

Australia must take an active interest in space, because future supply of essential space information is uncertain

nascent and growing capabilities and use them to strengthen international relationships if it is to continue to access space information. In the long term, stronger international relationships improve the relevance of satellite information to Australia by giving the country a voice in international planning of future capabilities.

There is a window of opportunity for Australia to help write the "rules of the road" for space, a strategic investment in the long term national interest

The ability of Australia — along with all other nations — to realise the benefits delivered by space capabilities is challenged by the problem of space debris. Half a million pieces of space debris large enough to damage a satellite are estimated to be in orbit. The proliferation of this debris, resulting from normal space operations, collisions between artificial objects in space, or deliberate acts such as the use of anti-satellite weapons, poses a growing risk to the space capabilities on which we rely. Australia's demographics and geography mean the nation will benefit from space capabilities long into the future. Therefore Australia has a strong interest in contributing to international efforts to limit debris creation and develop international norms on conduct in space. Such "rules of the road" protect the space environment and ensure our

continued ability to share in the benefits of space. This policy makes Australia's intention to participate in these international efforts clear.

3. Australia's National Goal in Space

Australia wishes to achieve the following national goal in space:

Achieve on-going, cost-effective access to the space capabilities on which we rely.

Achieving this goal will contribute to five key benefits for Australia:

- Improved Productivity: space capabilities such as satellite imagery and high accuracy positioning deliver information that brings about greater efficiencies and encourages innovation.
- 2. Better Environmental Management: satellite information enables effective environmental management across Australia's extensive and often inaccessible land and ocean territory.
- 3. A Safe and Secure Australia: space capabilities are important contributors to national security, law enforcement and to the safety of all Australians in disasters.
- **4. A Smarter Workforce:** space capabilities help transform existing industries and build new ones that provide quality jobs.
- Equity of Access to Information and Services: satellite communications enable high-speed, universal access to TV broadcasting, internet and telephone services.

Australia recognises that the obstacles to increased Australian involvement in space activities are not technical. Australia has a substantial record of achievements in many areas of space activity (see www.space.gov.au), and given sufficient investment, Australia could achieve a capability of excellence in any of these areas.

The greater challenge is to build a series of complementary and sustainable space activities for Australia which retain essential expertise domestically and carry weight internationally. Achieving this means prioritising those areas of space activity which deliver the most benefit for Australia, in contrast to spreading contributions broadly across many areas of space activity.

Australia will not fully realise the benefits from securing access to space capabilities immediately. Sustained coordination and support of space activities in Australia will be required. The seven principles which follow form the basis of a sustainable strategy which focuses on Australian strengths and will deliver the space capabilities on which we rely.

4. Achieving Australia's Space Goal

Principle 1: Focus on space applications of national significance

Australian Government efforts will focus on space applications that have a significant security, economic and social impact, specifically Earth Observation, Satellite Communications and Position, Navigation and Timing (see Space Applications of National Significance).

The Australian Government recognises that it is the integration of these applications that underpins critical national capability in areas such as search and rescue operations; disaster management and recovery; utilities and infrastructure; mapping, planning and land management; weather and climate prediction, monitoring, verification and reporting.

While accepting that space launch activities could be undertaken in Australia if a commercial, scientific or educational venture wishes to do so, Australian Government support for such activities will be limited to: providing a regulatory environment under the Space Activities Act 1998; providing access to the generally available programs and services to support investment attraction, innovation and research; and, subject to preliminary assessment, facilitating government-to-government arrangements.

- Determine Australia's national requirements from space capabilities systematically and on a regular basis through the Australian Government Space Coordination Committee. The interests of State and Territory governments, industry and the research sector will be considered through the coordination framework described in section 6. The requirements will inform the priorities of access to domestic and international space capabilities.
- Set priorities through the Australian Government Space Coordination Committee which focus on space applications of national significance.
- Encourage the development of techniques for tailoring international data to national needs in these applications of national significance, preserving and extending Australia's competitive strength in using space information to achieve useful outcomes for Australians.

- In civilian space research, prioritise research focused on Earth Observations from Space, Satellite Communication and Position, Navigation and Timing over other potential avenues of space research.
- Develop the National Earth Observations from Space Infrastructure Plan and the National Positioning Infrastructure Plan (see Space Applications of National Significance).

Space Applications of National Significance

Earth Observations from Space: observing the Earth from space provides crucial data to support important national requirements, such as weather and warning services, disaster mitigation and monitoring climate change. It helps protect and manage our natural resources for sustainable development and the future health and prosperity of Australia. Regionally, Earth Observation is the basis for cooperative international efforts towards measurement, reporting and verification of forest carbon stocks. The Australian Government is developing a National Earth Observations from Space Infrastructure Plan which examines investment in domestic ground infrastructure that supports Australian access to Earth Observations made by satellites.

Satellite Communications: space can be a significant tool for direct-to-home delivery of information, including TV broadcasting and broadband services, ensuring universal access, in addition to supporting Australia's defence commitments around the world. Space systems can be used to collect information and provide advanced communication networks with global coverage. The Satellite Communications sector is a mature commercial industry, so the Australian Government is not developing an infrastructure plan for the sector as part of this policy. Any future policy and program development for this sector would be undertaken in the context of Australian Government communications policy priorities.

Position, Navigation and Timing: space based navigation and timing devices are critical to Australia's smart infrastructure and social, economic and national security. They improve the regulation of air traffic and shipping, facilitate the management of mobile fleets such as taxis, trucks and farm equipment, provide time-stamping for financial transactions, and provide precision measurements for civil engineering, agriculture and water management. They assist individuals with navigation tasks and enable location-based services. The Australian Government is developing a National Positioning Infrastructure Plan which examines investment in domestic ground infrastructure to deliver accurate and reliable positioning information to users across Australia.

Principle 2: Assure access to space capability

Ensure resilient access to those space systems on which we rely now and to those important to our future national security, economic, environmental and social well-being.

Australia will continue to rely to a substantial degree on international support for critical functions enabled by space systems and the information which comes from them. And Australia will continue to accept a substantial degree of dependence on global supply chains for space system capability.

Australian access to international space systems has rested in part on geographic and other comparative advantages as a location for ground station facilities and for ground-based calibration and verification activities. Australia will continue to encourage further investment to make the most of these advantages and will manage the risks associated with over-reliance on their continuing importance.

Australian access to and effective use of international space systems and information has also relied on the respect it has achieved through international scientific and technical collaboration. Australia will enable further collaboration, through appropriate strategic investments in research infrastructure and expertise, to help secure these benefits into the future. As well as delivering high quality research outcomes, this collaboration is key to effective use of space-based information and extraction of value from our investments.

Access to radiofrequency spectrum is an important dimension of Australia's ability to leverage access to space system capability from international interest in locating ground station facilities in Australia. Australia also recognises the importance of managing anthropogenic radiofrequency emissions in sections of the electromagnetic spectrum which are used to measure environmental processes. Australia will facilitate access to the radiofrequency spectrum in a way that balances the requirements of space systems with other services, consistent with statutory requirements and principles for spectrum management.

Australia will ensure it has the infrastructure, capabilities and skills to access, process, store, integrate, use and distribute the data and information from space systems. This will include embracing all public and commercial stakeholders involved in providing space systems or space-enabled products and services.

Australia will continue to develop its nascent and growing capabilities to assure access to critical space-enabled services. Australia recognises the opportunities presented by the increasing capabilities and diminishing cost of small satellites, particularly for education and research. However, the Australian Government does not see an Australian satellite manufacturing or launch capability as an essential element of its approach to assured access to critical space-enabled services.

Australia will, over time, continue to invest, as appropriate, in systems, sensors or satellites, such as through the Australian Government's National Broadband Network, and through international collaboration and partnerships. Any such investment will be within the overall resource and policy guidance provided by the Australian Government.

Consistent with the Australian Industry Participation National Framework, the Australian Government will encourage industry participation in its space activities.

- Work towards establishing areas with long-term spectrum certainty, working within existing Australian spectrum policy guidance, to improve Australia's ability to access satellite information and protect Australia's comparative advantage as a location for ground infrastructure.
- Actively promote Australia to international partners as a preferred location for ground infrastructure, including for tracking, communications and calibration-validation, and fully leverage those facilities to secure Australian access to space capabilities.
- Prioritise areas of competitive domestic capability which make valuable contributions to international satellite projects, in order to obtain access to space-derived information essential for Australia.
- Make Australian contributions to international projects early in development, so that international capabilities address Australian requirements.
- Consider, through appropriate cost-benefit analysis, opportunities to satisfy priorities and manage the
 risks of over-dependence on international systems by developing Australian systems, sensors, hosted
 payloads or satellites.
- Develop and retain domestic expertise across the government, research and industry communities, to ensure that Australia can cost-effectively access and use space capabilities.

- Develop a plan to meet projected growth in Australia's satellite information needs by modernising and consolidating Australia's ground station infrastructure.
- Fully leverage existing research infrastructure investments in developing any new national facilities that enhance Australia's space capabilities.
- Actively contribute, within the limits of our resources and capabilities, to the cooperative international mechanism for Earth Observations from Space to ensure continued access to public good data.
- Recognising the growth in commercial capabilities, and in accordance with the Australian Government's policy of competitive neutrality, continue to use industry capabilities to meet national needs for civilian space capabilities as appropriate.

Principle 3: Strengthen and increase international cooperation

Australia will strengthen those relationships and cooperative activities on which Australia relies, and will continue to rely to a substantial degree, for space system capabilities.

Relationships with key allies and partners including the United States, the United Kingdom, Canada and New Zealand, Japan and the European Union are a priority.

Consistent with the Australia in the Asian Century White Paper, Australia will increase its engagement with regional neighbours with expanding capabilities that may complement Australia's space capabilities.

Australia will seek to strengthen and enhance its international partnerships to secure access to space systems and the information they provide, and to assist in areas such as research collaborations, skill and knowledge transfer and development, sharing resources and information, influencing capability development and encouraging the peaceful use of space.

Australia will identify and develop its nascent and growing capabilities and add to its standing as a contributing and influential partner in our alliances and international relationships.

The Australian Government will continue to encourage international science and technology collaboration, making the best use of limited resources.

Australia encourages and supports the data sharing principles of the Group on Earth Observations (GEO), which help ensure full, open, timely and low-cost access to Earth observation data from international space systems.

In implementing these statements of principle, the Australian Government will:

- Maintain a national contact point and coordination process for civilian space activities to improve the effectiveness of Australia's international engagement.
- Take full advantage of Australia's geographic location by facilitating the operation of foreign and commercial ground facilities within Australia in accordance with an appropriate oversight and compliance regime.
- Ensure Australia is appropriately represented at key international forums.
- Establish collaborative programs with international satellite missions that meet Australian priorities.
- Act as a trusted facilitator in encouraging closer global cooperation on international space activities.
- Develop international space cooperation within the context of Australia's broader foreign policy interests and strategies.

Principle 4: Contribute to a stable space environment

Australia will continue to support rules-based international access to the space environment; promoting peaceful, safe and responsible activities in space.

Australia will contribute through our alliances, key partnerships and international relationships to strengthening stability in space, including through monitoring and managing the space environment.

Australia will support international regulatory frameworks applicable to space, including relevant international law that applies to space, the United Nations space-related treaties to which Australia already is party, and relevant international declarations, guidelines and principles.

Australia will support appropriate international space arms control and transparency and confidence-building measures, giving careful consideration to proposals to establish further international norms for space activities.

Australia will prioritise the development of international norms that aim to prevent the immediate and serious challenge posed by the proliferation of orbiting space debris.

Australia will support these international efforts through national regulatory frameworks, including the Space Activities Act 1998, to govern the use of space by the Australian Government, allies and commercial users.

Australia will seek, where consistent with government priorities and available resources, to engage constructively in international fora where the interpretation, application and development of international law relating to space are under discussion.

- Intensify international engagement and advocacy on the security of space, including through bilateral, plurilateral and multilateral consultations.
- Contribute to the work of the UN Committee on the Peaceful Uses of Outer Space, in particular on the long-term sustainability of outer space activities.
- Adhere to the UN Space Debris Mitigation Guidelines in undertaking its space activities.
- Actively participate in the negotiation of an International Code of Conduct for Outer Space Activities, as an important and necessary step in the development of international norms for good behaviour in space.
- Contribute to the work of the UN Group of Government Experts on Space Transparency and Confidence-Building Measures.
- Explore options for practical, achievable and effectively verifiable space arms control measures that protect the space environment and contribute to Australia's national security.
- Encourage closer cooperation between civilian and defence research in domains that contribute to a stable and safe space environment, including space weather and space situational awareness.
- Make further statements of policy on space security and the space environment at appropriate future times.

Principle 5: Improve domestic coordination

Enhance the coordination, understanding and strategic direction of Australia's uses and approach to space.

Australia will maintain a central point of contact, coordination and policy development on civil space issues within the Australian Government and develop a whole-of-government approach to space systems, capabilities and issues. The Department of Defence will continue to lead on defence and military space related matters, while the Department of Foreign Affairs and Trade will continue to lead on space-related international security and arms control issues.

The Australian Government will continue to support information sharing across government agencies. Australia will leverage space-derived data acquisition and infrastructure investments to achieve whole of government outcomes.

Improved coordination of space-based technologies and services, including coordinated procurement of services from the growing commercial sector, will increase awareness of their relevance to Government policies and programs and their cross-government inter-dependencies. It will allow for the identification of key data requirements and synergies; help manage risk; exploit the full cost-effective potential of data access; and achieve efficiencies.

The Australian Government recognises that State and Territory governments are major contributors to Australia's space capabilities. Industry and research groups are also important elements of those capabilities.

- Adopt space-related responsibilities across the Australian Government as set out in section 5.
- Establish the Australian Government space coordination framework described in section 6, in order to improve coordination on space matters and centralise Australian Government space expertise.
- Establish an advisory committee comprised of members from the industry and research sectors and State and Territory governments.

- Facilitate identification of the nationally valuable capabilities offered by State and Territory governments, industry and research groups.
- Facilitate and encourage links with Australians working in space-related fields internationally in order to maximise the national benefit from this distributed expertise.
- Encourage Australian Government civilian agencies that plan to procure or develop space capabilities to:
 - Discuss those plans with the Australian Government Space Coordination Committee in order to realise the full potential from limited resources.
 - Where the space capabilities are satellites, assess opportunities for hosting secondary payloads
 which contribute to achieving the goals in this policy, and include that secondary payload where in
 the national interest.
 - Consider, where consistent with Australia's international trade obligations, how Australian space expertise can be retained or enhanced as part of the procurement and development of space capabilities.
 - Take into account the benefits of open licences during procurement and adopt open licensing arrangements where possible.
- Develop mechanisms to effectively represent Australian space-related industries globally.

Principle 6: Support innovation, science and skills development

Promote collaboration between Australian public and private research and development organisations with industry in space-related activity, including space science, research and innovation in niche areas of excellence or national significance.

Space technologies and services can bring about greater efficiencies and encourage innovation making Australia more productive and competitive. Satellite communications can facilitate universal access to faster internet services, allowing people and business everywhere to take full advantage of new communication tools and next generation technologies. Earth observation from space supports climate change modelling and the management of natural resources, while global navigation satellites improve transport, farming and

logistics systems and enable new location-based services. These space technologies and services will help transform existing industries and build new ones that provide quality jobs.

Collaboration between Australian public and private research and development organisations, including universities, with industry in space-related activity, including space science, research and innovation and linking these activities internationally to strengthen cooperation, will foster excellence, build on organisational competitive advantages and enhance national capabilities. This will ensure that our next generation of engineers, scientists and wider workforce are equipped with the skills needed to secure, and excel in, the jobs of the future.

Australia will use the context of space to engage students and teachers in science, mathematics and engineering education.

- Build and retain high quality Australian space expertise, including through prioritised projects which make cutting-edge contributions to space capabilities.
- Facilitate international research cooperation in fields other than those with national security sensitivities.
- Promote Australia's skilled and capable science, mathematics and engineering graduates to the global space community.
- Facilitate academic, inter-government and industry exchanges with appropriate international partners, in particular to better allow Australian citizens to work in difficult-to-access overseas job markets for space capabilities, including in the United States, Canada and the European Union.
- Develop initiatives to better coordinate Australian research and training in space capabilities, particularly in the reception, interpretation, storage and use of space-derived data.

Principle 7: Protect and enhance national security and economic well-being.

Australia's space capabilities will be used to enhance — and guard against threats to — our national security and economic well-being.

Australia will protect its national security and other interests, using domestic, alliance and international arrangements, as appropriate.

Australia will continue to improve the space capabilities of the Australian Defence Organisation to access space, gain the benefits of space-based systems and protect Australia from foreign exploitation by space-based capabilities.

Australia will develop government-business partnerships to progress technological space research and indigenous space capabilities which will contribute to national security, and identify and mitigate against vulnerabilities derived from our reliance on space assets that could impact our economic prosperity.

Australia will explore wider access to existing, and/or the development of new, space-borne capabilities to address challenges such as natural disasters, energy and resource security, while improving our response to traditional security challenges.

- Prioritise a space situational awareness capability and explore means by which to strengthen our space situational awareness and mission assurance capability.
- Develop an oversight and compliance regime to ensure space-related infrastructure in Australia is not being used for purposes inimical to Australia's national interests.
- Consider opportunities to establish a Space Community of Interest through the Trusted Information Sharing Network to bring relevant interested parties from industry, academia and government together to explore vulnerabilities, including interdependencies between space-related infrastructure and critical infrastructure, and to develop options to mitigate risk.

- Engage with international mechanisms such as the International Charter for Space and Major Disasters and seek to improve the delivery of satellite information in support of disaster planning, response, recovery and mitigation.
- Use national security space capabilities to support civilian needs where appropriate to make best use of limited resources.
- Examine further enhancements to the space capabilities of the Australian Defence Organisation as part of the Australian Government's 2013 Defence White Paper process.
- Maintain a system of export controls that, consistent with Australia's international trade and counterproliferation obligations, facilitates trade in space-related goods and services while regulating trade that raises national security sensitivities.
- Maintain foreign investment regulatory frameworks that ensure investment in space-related infrastructure is consistent with Australia's national security interests.

5. Australian Government responsibilities for space activities

Coordination

- The Department of Industry, Innovation, Science, Research and Tertiary Education is the central point of contact and coordination for Australian civilian space activities.
- The Department of Defence is the central point of contact and coordination for Australian national security space activities.

Earth Observations from Space

Geoscience Australia, the Bureau of Meteorology and CSIRO are the Australian Government Agencies
jointly responsible for Australia's civilian Earth Observations from Space activities.

Positioning

Geoscience Australia is the Australian Government Agency responsible for Australia's fundamental national positioning infrastructure and services.

Satellite Communications

■ The Department of Broadband, Communications and the Digital Economy is the Australian Government Department responsible for Australia's civilian satellite communications activities.

Space Science

CSIRO is the Australian Government Agency responsible for Australian civilian space science research.

Space Weather

The Bureau of Meteorology is the Australian Government Agency responsible for Australia's civilian space weather activities.

Radiofrequency Spectrum

The Department of Broadband, Communications and the Digital Economy is the Australian Government Department responsible for Australian radiofrequency spectrum policy. ■ The Australian Communications and Media Authority is responsible for management of Australia's radiofrequency spectrum.

International Engagement

- The Department of Foreign Affairs and Trade is responsible for engagement on space-related international security issues.
- The Department of Industry, Innovation, Science, Research and Tertiary Education is responsible for international engagement on civilian space cooperation.

National expertise and capabilities are also present in State and Territory governments and the industry and research sectors.

6. Australian Government coordination framework for civilian space activities

Overview

The Australian Government will establish a civilian coordination and priority-setting mechanism called the Australian Government Space Coordination Committee (SCC). The SCC will report to the Coordination Committee on Innovation. The SCC will work closely with a National Security Space Inter-Departmental Committee (NSS IDC) to manage national security dimensions of civilian space activities. The SCC will also receive advice from a committee representing stakeholders in the industry and research sectors and in State and Territory governments. An overview of the structure is shown in Figure 1.

Role of the SCC

The SCC is responsible for:

- Information sharing across organisations on Australian Government civilian space activities.
- Prioritisation of the civilian space activities which the Australian Government might undertake.
 Prioritisation will be within the guiding principles set by this policy, on a recurring timeline that allows consideration of priorities in budget planning processes. A public report would be prepared every two years stating these priorities.
- Prioritisation and coordination of Australia's international engagement on civilian space issues.
- A yearly report on the "State of Space in the Australian Government" to the Coordination Committee on Innovation (CCI). This report will summarise the civilian space-related activities of Australian Government agencies and formalise the information-sharing role of the SCC.
- Seeking advice on national security dimensions of Australian civilian space activities when relevant.
- Seeking advice from State and Territory governments and the industry and research sectors when relevant.
- Advising the Australian Government when this policy should be reconsidered at Cabinet level, as the national and international space context evolves.
- Providing coordinated advice to the Australian Government on space issues as required.

The SCC does not centralise responsibility for space activities undertaken, and each agency retains existing Ministerial reporting responsibilities for space-relevant activities it undertakes. The roles of the SCC do not override the statutory responsibilities of any department or agency.

Composition and meetings of the SCC

The SCC membership will be drawn from across all interested Australian Government departments and agencies. Representatives will be at SES Band 1 level or higher.

The Space Policy Unit in the Department of Industry, Innovation, Science, Research and Tertiary Education will be the chair and secretariat of the SCC. The SCC will meet four times per year, and may hold additional meetings. The SCC may create working groups as required. The two initial working groups will be:

- Earth Observations from Space; and
- Position, Navigation and Timing.

The working groups will lead the planning and any future implementation of the National Earth Observations from Space Infrastructure Plan and the National Positioning Infrastructure Plan. In the initial phases of planning, governance mechanisms will be established which include State and Territory government, industry and research representatives.

Role of the NSS IDC

The NSS IDC is a separate body to the SCC. It will meet as required to consider national security dimensions of civilian space issues. The NSS IDC will be chaired by the Department of Defence.

Role of the advisory committee

The advisory committee will advise the SCC and the CCI. The advisory committee will comprise representatives from State and Territory governments, industry and the research sector appointed by the Minister for Industry and Innovation. The advisory committee will be responsible for providing strategic advice to the Australian Government and facilitating high-level coordination with the sectors it represents.

Raising issues before the SCC

The SCC will invite submissions from State and Territory governments and the industry and research sectors to inform priority setting and decision making.

Minister(s) Reporting and, if needed, escalation Advice (as needed) National Security Policy (as needed) Coordination Group Coordination Committee on Innovation Advisory Committee, (NSPCG) with State and Territory Government, Reporting and, Industry and if needed, Advice and Advice Reporting and, if escalation Research information and needed, escalation sharing Representation information National Security sharing Australian Government Space Space Inter-Departmental Coordination Committee (SCC) Committee (NSS IDC) Chair: Department of Chair: Department of Defence Industry, Innovation, Science, Research State and Territory Position, Navigation and and Tertiary Timing (PNT) Working Group Government, Industry Education and Research involvement, organised Earth Observation from Space (EOS) Working Group by application area in accordance with the Other Working Groups Infrastructure Plans (as required)

Australian Government Governance

For Civilian Space Activities

Engagement with State and

Territory Governments,

Industry and Research

Figure 1: Australian Government Coordination Framework for Civilian Space Activities

Engagement on

National Security

The development of this policy was informed by several reports into Australia's space activities and their international context.

The reports are available at www.space.gov.au.

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