

SPACE – A PRIORITY FOR AUSTRALIA

Prepared by Senator Grant Chapman with the assistance of the Space Policy
Advisory Group (SPAG)

EXECUTIVE OVERVIEW

Introduction

1. We are fifty years into the space age but Australia does not have a government-endorsed national space policy, or a national space program or a space agency.¹ More seriously, we have no effective whole-of-government mechanism for addressing the wide-ranging implications for our national security of the now fast-moving developments in space-related strategic policy, international relations or technology – issues which most other comparable economies have long since taken up as a matter of national priority.
2. We have become dependent on space technology and space services, including many essential services that could be affected detrimentally, with little warning, by international developments beyond our control. We need to develop safeguards to address these weaknesses.
3. Currently, we are operating in a high-risk environment. Even the temporary loss of many key, space-based services, which we take for granted, would damage the nation. Our continued access to these services is far from assured and our capacity to manage without them is very limited.

The Issues

4. Australia's current use of, and dependence on, space hardware and software is comprehensive. Space technology underpins our everyday communications, navigation and earth observation. Indeed, it affects almost every aspect of the routine business of government, industry and the community at large. In short, space-based systems have become integral components of our daily lives, are central to the realisation of our national interests and provide core functions in our national infrastructure. They:
 - a. support the operations of the Australian Defence Force at home and abroad;
 - b. provide us with domestic and international communications and support their operations;
 - c. underpin our natural disaster preparedness including fire, flood, cyclone, severe storm and tsunami warning systems, management of emergency

¹ Australia purportedly has a '*Space Policy and Engagement Framework*' drafted within the Industry, Tourism and Resources portfolio. The document was apparently neither endorsed by Cabinet nor formally agreed by the National Security Committee of Cabinet. The strategic significance of space has now increased to the point where it cannot appropriately be regarded as essentially an industry-related issue, noting that DITR does not have the delegated authority to administer broader strategic issues underpinning our national security or sovereignty.

response and our routine monitoring and forecasting of weather and climate;

- d. enable us to research, understand and manage our natural resources and to monitor the state of the environment;
- e. enable Australian industry across a wide range of sectors to compete on reasonable terms with the rest of the world; and
- f. are fundamental to transport operations and the safety of people travelling by air and sea in particular.

5. Australia must address urgently the challenge of living in the space age. Space has become an identified issue for most advanced nations but Australia has been left behind.

6. It is imperative that we identify the essential elements of a national space policy and implement a coordinated national effort to enhance our capabilities and reduce our vulnerability through well-defined and relatively low-cost initiatives that will provide pathways to effective use: These are:

- a. identify and quantify our critical national space interests to highlight issues requiring priority attention;
- b. reduce our vulnerability to disruption or denial of space data and services;
- c. improve product validation so we can place greater confidence in space-sourced products;
- d. ensure to the extent reasonably possible, that we will be able to obtain the space products we require;
- e. contribute to reducing international tensions resulting from political and other developments;
- f. exert Australian sovereignty by responding to the use of space by foreign powers that collect intelligence on Australian activities;
- g. review our self-sufficiency with regard to space and determine appropriate initiatives in line with national priorities; and
- h. increase our dialogue with regional and other nations on space-related issues.

7. Australia will need to come to grips with international tensions that are converting space into a strategically less stable environment. With the world moving into a new era of space engagement, there is developing a threat of space conflict driven by the combination of competition, rapidly changing technology and new capabilities.

8. Paradoxically, there also are signs of enhanced cooperation amongst nations with space capability, as evidenced by the determination at the recent Ministerial Summit (of primarily space-committed nations) to proceed with implementation of a Global Earth Observation System of Systems in support of participating country needs in health, energy, water, weather, climate, agriculture, ecosystems, biodiversity and disaster management.

9. Unless Australia becomes a player in the new space era, our ability to benefit from the altruism of other countries, which has enabled us to get by, could be diminished. The costs to Australia's interests of letting the present opportunities slip by and implementing a recovery process later could be immense.

Objectives

10. Australian re-engagement with the global space community and space industry will be a decade-long undertaking which will require the involvement of essentially all Australian Government Portfolios in addition to State governments and the academic and private sectors. Two key objectives are essential and urgent. They are:

- a. the development and promulgation of a broad and far-sighted whole-of-government space policy; and
- b. the development of a proposed 10 year action agenda.

11. The purpose of this document is to draw attention to the urgent need for these two objectives to be achieved.

12. The recommendations outlined on the next page point the way forward, proposing the essential foundations required to achieve these objectives.

13. Specifically, my submission proposes, as a first step, that Cabinet consider and implement the following recommendations.

Recommendations

14. It is recommended that the Government:

- a. acknowledge that space is of strategic national relevance to Australia.
- b. formulate a national space policy that will, *inter alia*, address the following priority requirements to:
 - i. periodically review our critical national space interests;
 - ii. reduce our vulnerability to disruption or denial of space data and services;
 - iii. improve our capacity to validate data and products derived from space sensors;
 - iv. optimise our assured access to space data and products in the future;
 - v. increase Australian contributions to reducing international tensions stemming from space-related competition;
 - vi. make it more difficult to collect intelligence on our activities;
 - vii. periodically review our self sufficiency needs; and
 - viii. increase involvement in the international dialogue on space issues.
- c. assign to an agency accustomed to managing broader national issues, such as Department of Prime Minister and Cabinet, responsibility for coordinating the Australian strategic space policy framework.

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