

Introduction

- 1.1 Since the establishment of Mawson station in 1954, Australia has maintained a permanent presence in Antarctica, undertaking scientific research and providing leadership in Antarctic and environmental governance.
- 1.2 With an emphasis on peaceful collaboration through science, the Antarctic Treaty system provides Australia with a region of peace and security at its southern borders.¹ Moreover, the Antarctic climate presents unique opportunities for researchers to gain a greater understanding of critical issues including climate science, the conservation of Antarctic and Southern Ocean wildlife, and the sustainable management of Southern Ocean fisheries.²
- 1.3 Antarctica has witnessed an increase in activity with some nations expanding their existing infrastructure and research capabilities. Recently Australia has strengthened its commitment to its Antarctic program with the *Australian Antarctic Strategy and 20 Year Action Plan*. The Plan lays the foundation for new operational funding and modernisation of Australia's Antarctic Program. Central to this, is the construction of a new research and resupply icebreaker, the development of overland transport capabilities, improved aviation access, and strengthening Tasmania's role as an Antarctic Gateway.³

1 A J Press, '20 Year Australian Antarctic Strategic Plan', July 2014, p. 2.

2 Australian Antarctic Division (AAD), Department of the Environment and Energy, 'Science', 27 November 2015, <<http://www.antarctica.gov.au/science>>, viewed 28 July 2017.

3 Department of the Environment and Energy, *Australian Antarctic Strategy and 20 Year Action Plan*, 2016.

Recent reports

- 1.4 Antarctica has been the subject of a number of parliamentary committee reports in previous years, which have covered a broad range of topics in the region.⁴ This has included the adequacy of funding of Australia's Antarctic Program, the redevelopment of bases, and Antarctic tourism.
- 1.5 Recently, Australia's Antarctic Program and science more generally has received increased attention. In particular, a 2014 report commissioned by the Australian Government and led by former Director of the Australian Antarctic Division (AAD), Dr Tony Press, examined the challenges facing Australia's Antarctic Program and made a number of recommendations for Australia's future engagement in Antarctica.⁵ Simultaneously, the Senate Foreign Affairs, Defence and Trade Reference Committee released a report into *Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters* which made a number of recommendations relating to Antarctica.⁶
- 1.6 In response to both reports the Australian Government in 2016 released the *Australian Antarctic Strategy and 20 Year Action Plan*. The Plan outlined the most significant measures ever developed by the Australian Government to enhance Australia's role as a leader in Antarctica.⁷

Ongoing reviews

- 1.7 There are also a number of ongoing reviews into various aspects of the Australian Antarctic Program (AAP) and Australia's Antarctic sector, and it should be noted that some of these reviews are occurring in parallel with the Committee's current inquiry. Such reviews are discussed throughout the present report, and include:
- an assessment of the existing status of Antarctic station infrastructure;

4 For example: the Joint Standing Committee on Public Works, *Report Relating to the Redevelopment of Australian Antarctic Bases, Fifth Report of 1981, 1981*; House of Representatives Standing Committee on the Environment, Recreation and the Arts, *Tourism in Antarctica, 1989*; the Joint Standing Committee on the National Capital and External Territories, *Antarctica: Australia's Pristine Frontier – Report on the adequacy of funding of Australia's Antarctic Program, 2005*.

5 A J Press, '20 Year Australian Antarctic Strategic Plan', July 2014.

6 Senate Foreign Affairs, Defence and Trade Reference Committee, *Australia's Future Activities and Responsibilities in the Southern Ocean and Antarctic Waters, 2014*.

7 Department of the Environment and Energy, *Australian Antarctic Strategy and 20 Year Action Plan, 2016*.

- the development of a business case for the proposed year-round runway in Antarctica;
- a ‘capital budget review committee’ to examine longer term asset management plans under development aimed at countering the effect of the ageing Australian Antarctic asset base
- the engagement of an external consultancy to develop a strategic framework and priority asset replacement process for the lifespan of Australian Antarctic assets;
- an evaluation of the *Australian Science Strategic Plan 2011–12 to 2020–21*; and
- consideration of co-locating a range of Antarctic entities in a proposed Antarctic science hub at the new Macquarie Point Development in Hobart.

The current inquiry

1.8 On 21 June 2017, the Minister for the Environment and Energy, the Hon. Josh Frydenberg MP, wrote to the Committee requesting that it inquire into and report on the adequacy of Australia’s infrastructure assets and capability in Antarctica, with regard to:

- maintaining national interests;
- serving the scientific program into the future;
- international engagement, including collaboration and resource sharing with other countries;
- fostering economic opportunities consistent with the Antarctic Treaty system obligations; and
- environmental considerations.

1.9 On 29 June 2017, the Committee adopted the inquiry in the terms referred by the Minister.

Conduct of the inquiry

1.10 The inquiry was advertised on 29 June 2017. Submissions were invited from a range of government and non-government organisations that

operate in the Australian Antarctic Territory or provide support to the AAP or the programs of other nations, some of the contributors to previous inquiries, and other relevant stakeholders.

- 1.11 The Committee received 32 submissions and 20 supplementary submissions, which are listed at Appendix A. The Committee also received 1 exhibit, which is listed at Appendix B.
- 1.12 The Committee resolved to undertake a program of public hearings and site inspections in Hobart and Canberra. The Committee sought to hear firsthand about the range of specialist work carried out in support of the AAP.
- 1.13 Hobart's central location as an Antarctic logistics and science hub provided the Committee with an opportunity to undertake a program of public hearings and site inspections in Hobart. The Committee also held a program of public hearings in Canberra. The witnesses are listed at Appendix C.

Antarctic visit

- 1.14 As part of the inquiry, the Committee considered it vital to gain firsthand experience of the on the ground working environment and infrastructure of the AAP.
- 1.15 Four members of the Committee undertook a round-trip visit to Wilkins Aerodrome. This visit allowed members to learn more about the logistical infrastructure that supports Australian scientific efforts within the Antarctic continent.
- 1.16 In addition, three members of the Committee undertook a longer stay at Casey station. Their comprehensive program of meetings enabled members to learn more about the complexity of infrastructure and maintenance challenges faced by the AAD, and other issues such as waste management, and remediation.
- 1.17 Members were pleased to have secured very productive and insightful meetings with a wide range of staff from the AAD. Throughout their meetings and site inspections, the members heard from infrastructure engineers, ice core chemists, krill scientists, the Casey Station Leader, and a range of other experts working within Antarctica.
- 1.18 The visit enabled the Committee to gain genuine insights into the purpose of the AAP and the different options for strengthening Australia's role in

Antarctic leadership, science and logistics. In particular, the visit reinforced the complexities of replacing end-of-life assets in a remote location such as Antarctica. Members were extremely impressed by the enthusiasm from the AAD staff in relation to the role that they play in Antarctica.

- 1.19 On their return to mainland Australia, the members shared their newly acquired insights with their Committee colleagues. Learnings from the visit have made a very strong contribution to the Committee's deliberations and to shaping the conclusions and recommendations in this report.

Report structure

- 1.20 Chapter 2 provides an overview of the history of Australia's Antarctic Program as well as the current state of the program, including research stations, and scientific and logistical capabilities. It also notes the broader international context in which the AAP sits.
- 1.21 Chapter 3 review Australia's collaboration with international parties and its contribution to Antarctic governance. The chapter also assesses Australia's role as a policy leader in a range of areas including site inspections, search and rescue and environmental protection.
- 1.22 Chapter 4 reviews the infrastructure and logistical support in both Hobart and Antarctica that contribute to the success of the AAP.
- 1.23 Chapters 5 considers how Australia's Antarctic science program can best be served into the future. This includes a range of matters including the Australian Antarctic science framework, resourcing, training opportunities for researchers, and the sharing of data between different Antarctic programs.
- 1.24 Chapter 6 reflects on economic opportunities, consistent with Antarctic Treaty System obligations. This includes Tasmania's role as an Antarctic Gateway, tourism opportunities, and public outreach.
- 1.25 Recommendations appear throughout the relevant chapters.

Scope of the inquiry

- 1.26 Whilst the terms of reference of the inquiry require that the Committee closely consider issues related directly to Antarctica, there is a range of overlapping considerations in respect of Australia's activities in the Southern Ocean, including Macquarie Island. Where these issues have been raised by inquiry participants, the Committee has given them due consideration in the context of Australia's Antarctic activities. However, thorough consideration of the Southern Ocean does not fall within the scope of this report.