

There are few places in the world where there has never been war, where the environment is fully protected, and where scientific research has priority. But there is a whole continent like this - it is the land the Antarctic Treaty parties call '... a natural reserve, devoted to peace and science'.¹

Introduction

- 1.1 Antarctica is often regarded as one of the last frontiers for human exploration and adventure. The remote and hostile environment is arguably also the most pristine region on the planet.
- 1.2 Antarctica today provides a unique platform for undertaking groundbreaking science of increasing global importance. Australian scientists are at the forefront of Antarctic research and their ongoing investigations continue to reveal important data about climate change, future greenhouse gas levels and sea-level rise which are of national and international significance.
- 1.3 Historically, the exploratory efforts of Sir Douglas Mawson are particularly significant for Australians, as he was part of the first team to climb to the top of Mount Erebus, Antarctica's active volcano, and part of

1 Introduction to the Antarctic Treaty, adopted at the Antarctic Treaty Consultative Meeting in Peru, May/June 1999. Australian Antarctic Division 2004, *Introducing the Antarctic Treaty*, Australian Antarctic Division, Kingston, Tasmania, viewed 28 June 2004, <<http://www.aad.gov.au/default.asp?casid=78>>.

the first team to reach the magnetic South Pole in 1908.² Between 1911 and 1931, Mawson headed three exploratory teams to the Antarctic, expanding the world's knowledge of its geography and geology.³ Moreover, these expeditions laid the foundation for Australia's presence in the Antarctic region.

Australia's presence in the Antarctic region

The Australian Antarctic Territory

- 1.4 Australia's significant presence in the region is evident in the size of its claim of sovereignty over Antarctica. The Australian Antarctic Territory (AAT) constitutes 42 per cent of the Antarctic continent and as such, represents the largest territorial claim in Antarctica.⁴ Sovereignty over the AAT was transferred from Britain to Australia under the *Australian Antarctic Territory Acceptance Act 1933*, which came into effect on 24 August 1936.⁵
- 1.5 Australia has maintained a continuous presence in the Antarctic region since the end of the Second World War. On Mawson's advice, the Commonwealth Government recognised the need for further Antarctic exploration and established the Australian National Antarctic Research Expeditions (ANARE) in 1947.⁶ At that time, ANARE's objective was to investigate potential sites for permanent scientific stations, including on the Antarctic continent. In the first season of the ANARE, stations were established at Heard and Macquarie Islands. Despite the difficulties encountered in setting up a continental station, the establishment of the two island stations ensured the success of the expedition.⁷

2 Australian Antarctic Division, 2003, *Douglas Mawson starts his Antarctic career*, Australian Antarctic Division, Kingston, Tasmania, viewed 24 June 2004, <<http://www.aad.gov.au/default.asp?casid=1309>>.

3 Australian Antarctic Division, 2003, *Douglas Mawson starts his Antarctic career*, Australian Antarctic Division, Kingston, Tasmania, viewed 24 June 2004, <<http://www.aad.gov.au/default.asp?casid=1309>>.

4 Department of the Environment and Heritage, Submission no. 24, p 5. Seven States party to the Antarctic Treaty have territorial claims, these are Argentina, Australia, Chile, France, New Zealand, Norway and the United Kingdom.

5 See Section 2, *Australian Antarctic Territory Acceptance Act 1933*.

6 Australian Antarctic Division, 2003, *ANARE is Created*, Australian Antarctic Division, Kingston, viewed 29 June 2004, <<http://www.aad.gov.au/default.asp?casid=1312>>.

7 Australian Antarctic Division, 2003, *ANARE is Created*, Australian Antarctic Division, Kingston, Tasmania, viewed 29 June 2004, <<http://www.aad.gov.au/default.asp?casid=1312>>.

The Australian Antarctic Division

- 1.6 In May 1948, the Commonwealth Government set up the Australian Antarctic Division (AAD) in Melbourne as an agency of the Department of External Affairs with the role of administering and coordinating ANARE. Since that time, the AAD has conducted and supported science programs in the Antarctic, represented Australia at international meetings on Antarctic affairs (such as Antarctic Treaty meetings), and administered Australian territories in the region. Today, the AAD is an agency of the Department of the Environment and Heritage and since 1981 it has been based in Kingston, near Hobart, Tasmania.

Australia's Antarctic stations

- 1.7 Australia currently maintains four permanent ANARE stations in the region, all of which are occupied year-round by scientists and support staff:
- **Macquarie Station** (established 1948) The sub-Antarctic Macquarie Island is in the Southern Ocean, and lies about 1500 km south east of Tasmania and 1300 km north of the Antarctic continent. The island and its surrounding waters to 12 nautical miles were World Heritage listed in 1997, and, as a dependency of Tasmania, the island is now managed by the Tasmanian Parks and Wildlife Service.⁸
 - **Mawson Station** (established 1954) Australia's first continental station, named after Sir Douglas Mawson, is situated on a rock outcrop surrounding a natural deep-water harbour, offering access to the continent's interior.⁹
 - **Davis Station** (established 1957) Australia's second continental station was built in an extensive ice free area in the Vestfold Hills, promising unique scientific opportunities. The station is named in honour of Antarctic navigator Captain John King Davis.¹⁰
 - **Casey Station** (established 1969) In 1959, Australia took over operation of the United States-built station, Wilkes. When it became clear that the

8 Australian Antarctic Division, 2004, *Macquarie Island*, Australian Antarctic Division, Kingston, Tasmania, viewed 14 February 2005, <<http://www.aad.gov.au/default.asp?casid=7151>>.

9 Australian Antarctic Division, 2001, *Mawson*, Australian Antarctic Division, Kingston, Tasmania, viewed 14 February 2005, <<http://www-new.aad.gov.au/default.asp?casid=2429>>.

10 Australian Antarctic Division, 2004, *Captain John King Davis*, Australian Antarctic Division, Kingston, Tasmania, viewed 14 February 2005, <<http://www.aad.gov.au/default.asp?casid=1730>>.

Wilkes site would eventually be buried in snow, a new site was built and named in honour of the then Governor-General, Lord Richard Gavin Gardiner Casey, a keen supporter of the Antarctic program.¹¹

- 1.8 In addition, an ANARE station originally established at Heard Island closed in 1955. Today, the sub-Antarctic Territory of Heard Island and McDonald Islands (HIMI) is still administered by the AAD, and short term science expeditions are still organised to Heard Island during the summer season. For example, during the 2003-04 season, a party of 28 expeditioners spent approximately two months on the island undertaking a range of programs including animal, bird and terrestrial biology and glaciology.¹²

Australia's Antarctic Program

- 1.9 The goals for Australia's Antarctic Program are set by the Australian Government. At present, the goals for the program are:
- to maintain the Antarctic Treaty System and enhance Australia's influence within the System;
 - to protect the Antarctic environment;
 - to understand the role of Antarctica in the global climate system; and
 - to undertake scientific work of practical, economic and national significance.¹³
- 1.10 The AAD pursues the Commonwealth Government's interests in the region through the management and conduct of research expeditions and provides:
- planning, coordination and support for the whole Australian Antarctic Program;
 - infrastructure which is consistent with priorities determined on the basis of strategic science plans;

11 Australian Antarctic Division, 2004, *Casey Station – A Brief History*, Australian Antarctic Division, Kingston, Tasmania, viewed 14 February 2005, <<http://www.aad.gov.au/default.asp?casid=1705>>.

12 For more information on the Heard Island 2003-04 Expedition, see: Australian Antarctic Division 2003, *Heard Island 2003-04*, Australian Antarctic Division, Kingston, Tasmania, viewed 28 January 2005, <<http://www.aad.gov.au/default.asp?casid=12718>>.

13 Australian Antarctic Division, *Science Strategy 2004/05–2008/09*, p 2.

- support for specific science programs, with priorities being decided following advice from planning and advisory bodies and program areas;
 - support to achieve environmental, legislative and Treaty objectives; and
 - the administration of the Australian Antarctic Territory and the Territory of Heard and McDonald Islands.¹⁴
- 1.11 In cooperation with other agencies, the AAD advises the Commonwealth Government on Australia's national and international policy positions and obligations, from environmental protection issues to policy and legal questions concerning the administration of the Antarctic territories.¹⁵ The AAD also plays a lead role in supporting Australia's participation in a wide range of international fora, such as Antarctic Treaty Consultative Meetings (ATCMs), the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and the International Whaling Commission (IWC).
- 1.12 While Australia's Antarctic Program is managed by the AAD, there are a range of other stakeholders with an interest in Antarctic policy, operations and management, including:
- government agencies such as the Commonwealth Bureau of Meteorology, Geoscience Australia, the Australian Geological Survey Organisation, the Ionospheric Prediction Service, the Australian Survey and Land Information Group, and some divisions of the Commonwealth Scientific and Industrial Research Organisation (CSIRO); and
 - non-government bodies and individuals, including universities around Australia - notably the Cooperative Research Centre for Antarctic and Southern Ocean Ecosystems based at the University of Tasmania - and foreign scientists.¹⁶

Scrutiny of Australia's Antarctic Program

- 1.13 Australia's Antarctic Program is scrutinised by parliament through the work of parliamentary committees and through the Senate Budget Estimates process. The program, and in particular its science component, is also scrutinised by the Antarctic Science Advisory Committee (ASAC). This ministerially appointed committee conducts ongoing reviews, usually

14 Department of the Environment and Heritage, Submission no. 24, p 11.

15 Department of the Environment and Heritage, Submission no. 24, p 11.

16 Department of the Environment and Heritage, Submission no. 24, p 11.

involving a process whereby public comment is sought, and reports to Government.

1.14 Recent parliamentary committee reports with an Antarctic focus include:

- *Australian Law in Antarctica* (1992), House of Representatives Standing Committee on Legal and Constitutional Affairs;
- *Tourism in Antarctica* (1989), House of Representatives Standing Committee on the Environment, Recreation and the Arts;
- *Report No. 297 – Management of the Antarctic Division* (1989), Joint Committee of Public Accounts;
- *The Natural Resources of the Australian Antarctic Territory* (1985), Senate Standing Committee on Natural Resources; and
- *Report Relating to the Redevelopment of Australian Antarctic Bases (Fifth Report of 1981)*, Joint Standing Committee on Public Works.

1.15 ASAC is responsible for advising Government, through the Minister for the Environment and Heritage, on:

- the broad direction of Australia's Antarctic program, including scientific, operational and logistical support activities;
- priority areas for scientific research, having regard to the Government goals for Australia's Antarctic Program; and
- measures to ensure an effective Australian participation in international scientific and operational programs involving the Antarctic.¹⁷

1.16 In 1997, ASAC produced a report to set the AAD's strategic direction for the future, and in 2003 ASAC engaged a steering committee to undertake an evaluation of Australia's Antarctic science program (see chapter six). A brief summary of the findings from ASAC's 1997 report and the Government's response to that report are set out below.

Australia's Antarctic Program Beyond 2000: The 'Foresight Report'

1.17 In 1996, the then Parliamentary Secretary with responsibility for Antarctic matters, Senator the Hon Ian Campbell, asked ASAC to advise the Government on:

...whether the Government's stated goals for the Antarctic Program are appropriate for the year 2000 and beyond, and

17 For ASAC's full Terms of Reference, see Antarctic Science Advisory Committee, Submission no. 13, p 17.

whether they adequately reflect Australia's current and proposed Antarctic interests.¹⁸

- 1.18 In October 1997, ASAC presented its report, *Australia's Antarctic Program Beyond 2000: A Framework for the Future*. In its report – which has come to be known as the 'Foresight Report' – ASAC concluded that the primary goal of the Australian Antarctic Program should be to undertake scientific work of practical, economic, and national significance.¹⁹ The general theme of ASAC's report was that there was a need to develop a more flexible approach to achieving the Government's goals for Australia's Antarctic Program.²⁰
- 1.19 Many of ASAC's recommendations are significant in the context of the Joint Standing Committee on the National Capital and External Territories' (JSCNCET) inquiry. ASAC's recommendations supported the introduction of an inter- and intra-continental air transport system, a dedicated marine science vessel, and a move to automated monitoring programs at Australia's continental stations. ASAC also recommended that Australia retain a permanent presence in Antarctica by continuing to operate at least one of the existing stations on the Antarctic continent.²¹
- 1.20 More recently in evidence to the JSCNCET, ASAC acknowledged that while there has been some progress toward implementing the recommendations of the Foresight Report, many have not been implemented but most remain relevant today.²²
- 1.21 ASAC's report received some criticism because it provided a series of broad recommendations rather than costed proposals.²³ However, ASAC stated that its intended approach was to set in place a conceptual framework which dealt with any uncertainties Australia's Antarctic Program may face in the years 2000 to 2030, and that the report:

18 Antarctic Science Advisory Committee, 1997, *Australia's Antarctic Program Beyond 2000: A Framework for the Future: A Report to the Parliamentary Secretary for the Antarctic*, Department of the Environment, Canberra, p vii.

19 Antarctic Science Advisory Committee, 1997, *Australia's Antarctic Program Beyond 2000: A Framework for the Future: A Report to the Parliamentary Secretary for the Antarctic*, Department of the Environment, Canberra, p xiii

20 Antarctic Science Advisory Committee, Submission no. 13, p 2.

21 Antarctic Science Advisory Committee, 1997, *Australia's Antarctic Program Beyond 2000: A Framework for the Future: A Report to the Parliamentary Secretary for the Antarctic*, Department of the Environment, Canberra, pp xv-xvii.

22 Antarctic Science Advisory Committee, Submission no. 13, p 2.

23 See, for example, Pockley, P. 'Antarctic Science: all at sea or up in the air'. *Australasian Science*, v 19 no 2, 1998, pp 38-40.

...leaves to Program Managers, Program Advisory Committees and Program Leaders the details of precisely what should be done, where, when, how and by whom.²⁴

The Government's response to the Foresight Report

- 1.22 Upon receipt of ASAC's Foresight Report, the Government invited public comment before presenting its response in May 1998. The Government's response, entitled *Our Antarctic Future: Australia's Antarctic Program Beyond 2000*, forms the basis for the AAD's strategic direction for the first two to three decades of the 21st century.²⁵
- 1.23 In its response, the Government accepted the majority of ASAC's recommendations in principle and, in particular, called for more flexibility in logistics and infrastructure so that Australia's Antarctic Program would be able to respond more readily to changing priorities in the future.²⁶ The Government did not support ASAC's advice that Australia relinquish control of one or more of its permanent stations as a cost-cutting measure, at least in the medium term, and stated that the feasibility of a shift to automated monitoring programs would be investigated as an alternative.²⁷
- 1.24 The Government acknowledged that an air link and a dedicated marine science vessel would be desirable additions to Australia's Antarctic science program.²⁸

Background and conduct of the Committee's inquiry

- 1.25 Under their resolutions of appointment, parliamentary committees are empowered to review the annual reports of agencies and departments within the committee's area of portfolio responsibilities. On 21 March 2002,
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24 Antarctic Science Advisory Committee, 1997, *Australia's Antarctic Program Beyond 2000: A Framework for the Future: A Report to the Parliamentary Secretary for the Antarctic*, Department of the Environment, Canberra, pp 7-8.

25 Department of the Environment and Heritage, Submission no. 24, p 21.

26 Commonwealth Government, 1998, *Our Antarctic Future: Australia's Antarctic Program Beyond 2000: The Howard Government response to Australia's Antarctic Program Beyond 2000: A Framework for the Future: A Report to the Federal Government by the Antarctic Science Advisory Committee*, p 4.

27 Commonwealth Government, 1998, *Our Antarctic Future: Australia's Antarctic Program Beyond 2000: The Howard Government response to Australia's Antarctic Program Beyond 2000: A Framework for the Future: A Report to the Federal Government by the Antarctic Science Advisory Committee*, p 4.

28 Commonwealth Government, 1998, *Our Antarctic Future: Australia's Antarctic Program Beyond 2000: The Howard Government response to Australia's Antarctic Program Beyond 2000: A Framework for the Future: A Report to the Federal Government by the Antarctic Science Advisory Committee*, pp 5-7.

the JSCNCET resolved that a general review of each of Australia's external territories be conducted as part of an annual monitoring of the territories by the Committee.

- 1.26 Having already commenced reviews in June 2002 with regard to Norfolk Island and the Indian Ocean Territories, in 2003 the Committee turned its attention to the Australian Antarctic Territory using the annual report of the Department of the Environment and Heritage as the procedural basis for the inquiry.
- 1.27 In August 2003 the Committee sought a briefing from the AAD. During this briefing, it became evident to the Committee that the critical issue confronting Australia's Antarctic Program was whether the AAD was receiving adequate funding to continue to achieve the Government's goals for the program. Accordingly, on 10 September 2003, the Committee resolved to make that issue the focus of its inquiry.
- 1.28 As previously outlined there are a range of organisations and sources of funding for Australia's Antarctic Program. However, using its annual report powers for this inquiry, the Committee focused on the funding of the AAD within the context of the wider management and funding framework of Australia's Antarctic Program.
- 1.29 Due to other work of the Committee the inquiry has been spread over two years and is therefore based on the 2001-02, 2002-03 and 2003-04 annual reports of the Department of the Environment and Heritage.
- 1.30 The inquiry lapsed with the dissolution of the 40th Parliament but was recommenced by the new committee in the 41st Parliament.
- 1.31 The inquiry was advertised in *The Australian*, *The Mercury* (Tasmania) and *The Albany Advertiser* on 15 October 2003 and the community and media were informed about the inquiry prior to each of the Committee's public hearings.
- 1.32 The inquiry received 40 submissions and two exhibits and these are listed at Appendix A and Appendix B respectively. Twenty-seven witnesses gave evidence during three public hearings conducted in Hobart, Albany and Canberra between March and June 2004. A list of the witnesses and organisations represented at those hearings is at Appendix C. In the current parliament, to finalise the inquiry the Committee undertook a final briefing and inspection in Kingston on 1 February 2005.

Structure of the report

- 1.33 Five chapters follow this introduction. Chapter two provides a broad overview of current funding arrangements for the AAD as the lead agency for Australia's Antarctic Program. Given the critical underpinning role of logistics and operational support, chapter three looks at those issues. The next three chapters address funding-related issues in relation to the Government's goals for Australia's Antarctic Program. More specifically, chapter four looks at Australia's obligations within the Antarctic Treaty System and Australia's opportunities for enhanced international collaboration; chapter five addresses issues relating to the protection and conservation of the Antarctic environment; and chapter six examines Australia's Antarctic science program.