

Security challenges of Antarctica and the Southern Ocean Australia’s Antarctic interests



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The Antarctic Treaty has significant strategic and security interests for Australia. Australia claims 42 per cent of the continent, and the Antarctic Treaty established the area below 60° S as a non-militarised region where military manoeuvres, weapons testing and nuclear explosions are prohibited. The benefits to Australia of maintaining the strength of the Antarctic Treaty System are manifold. This paper sets out the importance to Australia of the Antarctic Treaty System; Australia’s Antarctic activities; and current geopolitical tensions in the system. It argues that Australia should continue to invest practical and diplomatic efforts to secure its Antarctic interests and the strength of the System into the future.

Key words: Antarctica; Antarctic Treaty; Australian Antarctic Territory; militarisation; security.

This paper provides an overview of Australia’s engagement in Antarctic affairs and of our national Antarctic interests so as to establish the legal and geopolitical framework for discussion of Australian security in the Antarctic and Southern Ocean.

Australia’s geographic footprint stretches from the tropics to the South Pole and west and east across very large areas of the Indian and Pacific Oceans. The Australian Antarctic Territory (AAT) spans from below Madagascar to below east of the Australian continent, and the most eastern point of Australian maritime jurisdiction is the extended continental shelf of Norfolk Island in the Pacific. Australia has one of the three largest maritime jurisdictions on the planet – even if we exclude the AAT from that discussion (Figure 1).

Mawson and subsequently by Australia’s continuing Antarctic science efforts and discovery. These interlocking threads of exploration, discovery and science, and the Antarctic legal and administrative regimes that Australia has established, underpin Australian sovereignty of the AAT.

The validity of Australia’s claim to the AAT is founded on early exploration and discovery, and the subsequent transfer of territory from the United Kingdom to Australia in 1933 through the *Australian Antarctic Territory Acceptance Act 1933* (C’lth), followed by the 1936 proclamation of the Australian Antarctic Territory. In 1939, to signify Australia’s claim to the AAT, the Australian Department of External Affairs in conjunction with the Department of the Interior, published a Handbook and the first comprehensive map of the Antarctic continent, showing the “Australian Antarctic Territory”, France’s “Adelie Land”, New Zealand’s “Ross Dependency”, and the United Kingdom’s “Falkland Islands Dependency” (Manning 2010). The map itself was not only a geographic depiction, it was also a public illustration of how much Australia knew about Antarctica at the time. The *Handbook* contained a detailed chronology of historical Antarctic exploration and discovery. Not shown on this early map were the Antarctic claims of Norway (“Queen Maud Land”, made in February 1939), Chile (1940) and Argentina (1942).

Current national claims to Antarctic territory are shown at Figure 2. The Norwegian claim was made, with some urging from the United Kingdom, partly in response to the German Antarctic Expedition of 1938-39 in order to forestall any German claim in the region.

Australian Antarctic exploration and scientific activities were interrupted by World War II, but in the immediate post-war period, Sir Douglas Mawson began agitating for Australia to reassert its Antarctic presence. The Australian National Antarctic Research Expedition (ANARE) was established in 1947 and conducted the

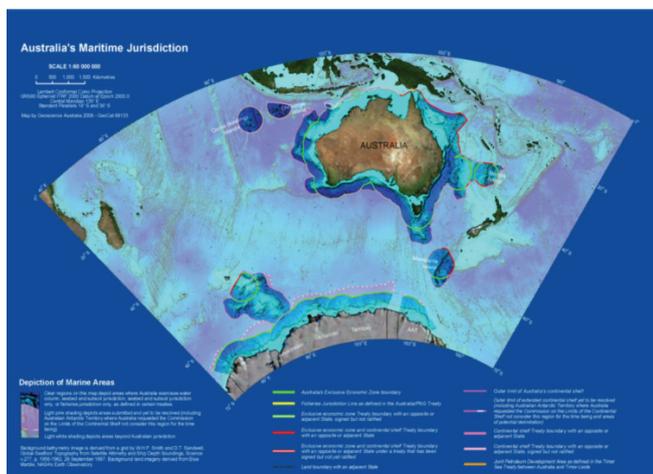


Figure 1. Australia’s maritime jurisdiction (Source: Geosciences Australia).

History of National Claims to Antarctic Territory

Australia’s Antarctic interests have been shaped for over one hundred years by Antarctic exploration and discovery – initially through the efforts of Douglas

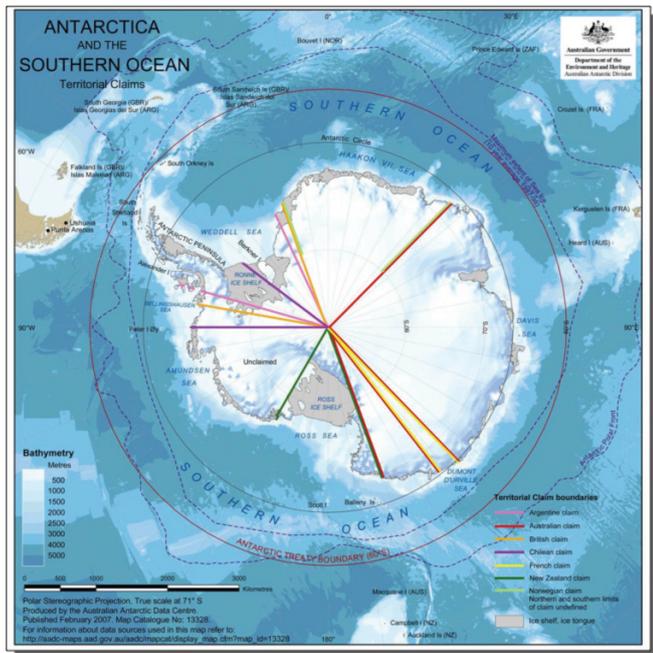


Figure 2. Antarctica showing territorial claims (Source: Australian Antarctic Division).

first of its expeditions to Macquarie Island, and Heard Island. In 1948, the Antarctic Division of the Department of External Affairs (now the Australian

Antarctic Division) was established to administer ANARE. Australia's intention was to establish a permanent presence on the Antarctic continent and in 1954 Australia established Mawson Station in the AAT. Mawson is the oldest continuously running Antarctic research station south of the Antarctic Circle.

Australia was not alone in seeking to assert an Antarctic presence in the post-war period. One of the biggest Antarctic efforts was the United States Antarctic campaign from August 1946 to early 1947, codenamed 'Operation Highjump'. Operation Highjump was a formidable undertaking for the time, involving 4700 personnel, 33 aircraft and 13 ships. One of the tasks of Highjump was to lay the basis of a United States claim to Antarctica – although this was subsequently denied officially. The United States continued its Antarctic expeditions and activities after the end of Highjump.

The Soviet Union, the other Cold War superpower, also exerted a keen interest in Antarctica. In 1955, the Soviets sent an expedition to Antarctica to establish Myrny Station on the Antarctic coast in Dronning Maud Land. Myrny was to be used as the base from which the Soviet Union launched deep field expeditions to establish Vostok Station, 1400km inland.

While Cold War tensions presented one set of potential conflicts in the Antarctic region, the overlapping claims of the United Kingdom, Argentina, and Chile presented another. In 1955, the United Kingdom applied to the International Court of Justice for adjudication on the overlapping British, Chilean and Argentinian Antarctic claims. This application failed when both Chile and Argentina would not submit to arbitration.

These two sets of potential conflicts presented a particular challenge in the post-World War II period: a region of competing sovereign interests mixed with deepening Cold War tensions. Various attempts at finding solutions to this Antarctic problem were tried. For example, in the late 1940s there were attempts to establish a form of "condominium" arrangement for Antarctica, involving the seven Antarctic claimant states and the United States. This, of course, met with hostile rejection by the Soviet Union which asserted that it had rights to Antarctic sovereignty dating back from Bellingshausen's First Russian Antarctic Expedition of 1819-1820.

It was against this background that the International Geophysical Year of 1957 to 1958 (IGY) provided the catalyst for the settlement of these potential conflicts through the negotiation of the Antarctic Treaty – one of Australia's most important international treaties. The IGY ran from the start of 1957 to the end of 1958 so that scientific observations could be made in both the Arctic and the Antarctic. In the Antarctic, twelve countries carried out scientific programmes: Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union, the United Kingdom, and the United States.

The Antarctic Treaty

In 1958 the United States President, Dwight Eisenhower, invited to Washington the 12 countries that participated in the IGY in Antarctica. Thus began an intense series of negotiations lasting from mid-1958 to 1 December 1959 when the Antarctic Treaty was signed in Washington. The Treaty itself is concise, consisting of only 14 Articles – but its scope and reach is remarkable, especially considering the deepening Cold War, and conflicting views over Antarctic claims.

Treaty provisions

In terms of cooling down Cold War tensions over American and Soviet competition in the Antarctic, the Treaty declares that "... Antarctica shall forever be used exclusively for peaceful purposes and shall not become the scene or object of international discord ...". Article I of the Treaty provides that Antarctica is to be used for peaceful purposes only and prohibits "measures of a military nature" including prohibitions on military bases; the conduct of "military manoeuvres"; and the testing of weapons. Article V of the Treaty prohibits "nuclear explosions" and the disposal of radioactive wastes in the Antarctic Treaty area.

In order to provide mutual assurance that these and other provisions of the Treaty are being adhered to, Article VII allows for Contracting Parties to appoint inspectors "... who shall have complete freedom of access at any time to any or all areas of Antarctica". All Antarctic facilities and equipment, and ships and aircraft embarking and disembarking personnel and equipment are open to inspection. The Treaty also provides that aerial inspections can be carried out. Antarctic Treaty Consultative Parties are also required to provide

advance notice of expeditions to Antarctica, the presence of stations “occupied by its nationals”, and the use of any military equipment and personnel “intended to be introduced into Antarctica”.

Therefore, although the Treaty does not prohibit the use of military equipment and personnel in Antarctica, their use must be for peaceful purposes and in the pursuit of the provisions of the Treaty. The regime of open access for inspections and the requirements for advance notice were intended to provide deep mutual assurance that Antarctica was to remain non-militarised.

Territorial claims

When the Prime Minister of Australia, Robert Menzies, addressed the first Antarctic Treaty Consultative Meeting (ATCM) in Canberra in June 1961, he pointed to the Treaty’s success in dealing with militarisation and potential conflict, and to having agreed “... to set aside the arguments about territorial claims”. He noted too that the Treaty did not require countries to abandon their claims; and that the Treaty included countries that did not recognise claims (Press 2021). Given previous post-World War II difficulties in dealing with territorial claims in Antarctica, especially the overlapping claims of Argentina, Chile and the United Kingdom, and the assertions by the Soviet Union and the United States that they had rights to Antarctic claims, this was a significant achievement.

Article IV of the Antarctic Treaty states that “nothing contained in the present treaty shall be regarded as a renunciation ... of previously asserted rights of or claims to territorial sovereignty in Antarctica ...”. Article IV goes on to protect the “basis of Antarctic claims” of the United States and the Soviet Union; and recognises the position of those countries that do not recognise claims. The Treaty provides further that no activities undertaken during the life of the Treaty can be used “for asserting, supporting, or denying a claim to territorial sovereignty in Antarctica ...” and that no new claims or enlargement of claims are allowed to be made during the life of the Treaty. Australia played a strong hand in these negotiations, after initially being a reluctant participant.

To summarise the above, Australia has had a long and active engagement in Antarctica and the Southern Ocean, and in Antarctic affairs. Australia’s claim to the Australian Antarctic Territory is protected by the Antarctic Treaty, and stems directly from early Antarctic exploration and discovery, and through valid legal sovereign acts. That the Australian Antarctic Territory is not universally recognised is moot (Scott 2021). The Treaty establishes that the area below 60oS, about 7 per cent of the globe, is to be non-militarised and free of conflict. As a region proximal to Australia, this is a significant national security achievement – securing this into the future is the subject of this symposium.

Australia’s Antarctic Activities

Australia has three permanent Antarctic stations: Mawson, established in 1954 (see above); Davis Station (established in 1957, but closed temporarily during the

building of Casey Station); and Casey Station, established in 1964. All of these stations are on the coast of the Australian Antarctic Territory. Casey, the most easterly of these three stations is directly south of Perth. All three Australian stations went through a major rebuilding programme in the 1980s, and are now, again, set to be modernised (see below). Australia also operates Wilkins Aerodrome, a 3.5km-long ice runway 70km inland from Casey Station. Australia also has numerous seasonal field stations and camps, as well as the unoccupied historical site of Mawson’s 1911-1914 Australasian Antarctic Expedition camp at Cape Denison.

Australian access to Antarctica was almost exclusively ship-based until the construction of Wilkins Aerodrome in the mid 2000s. Since 2007-2008 Wilkins has operated during the Austral Summer to receive wheeled Airbus 319 passenger aircraft and, since 2016, also heavy lift C-17A military cargo aircraft. Wilkins Aerodrome also acts as a hub to link with other aircraft to provide intracontinental air access to Davis and Mawson Stations and to other field sites in Antarctica.

In 2016, the Australian Government announced that it was commissioning the construction of a “state of the art” icebreaker to replace the ageing research and supply vessel *Aurora Australis*. This new vessel, RSV *Nuyina*, at 160.3m in length and displacement of 25,000 tonnes, has far more capacity than *Aurora Australis* at 95m and displacement of just over 8000 tonnes. RSV *Nuyina* is able to break 1.65m thick ice at three knots, providing Australia with greatly enhanced Antarctic operational capability.

In terms of resupply capability for Australia’s Antarctic stations, RSV *Nuyina* can carry 1200 tonnes of cargo, 96 containers, and 1600 tonnes of fuel. This enhanced cargo capability gives the Australian Antarctic Division the ability to streamline the servicing of stations and balance the use of *Nuyina*, and other vessels, between resupply and research use. The vessel can carry and support medium-lift and long-range helicopters, thus providing additional capability for resupply, field support, science, and passenger transport. *Nuyina* has a crew of 32 and can house 117 passengers.

The science capabilities of *Nuyina* are among the most advanced of any research icebreaker.¹ They were designed to provide sophisticated marine and ice-zone research equipment and platforms that align with national Antarctic research priorities.² The ship can operate at sea for 116 days, allowing for extended and complex marine and oceanographic research to be undertaken in the Southern Ocean, at the ice edge, and in the sea-ice zone.

In February 2022 the Australian Government announced \$800 million of new funding over 10 years to support Australia’s Antarctic efforts. The announcement

¹See <https://www.antarctica.gov.au/nuyina/science/laboratories/>

²https://www.antarctica.gov.au/site/assets/files/53156/2022_update_20yearstrategy.pdf

included additional funding for inland traverse capabilities to support science, mapping and exploration; new investment in remotely-operated vehicles for research and mapping; new medium-lift helicopter capability; additional funding to allow *Nuyina* to be used more extensively for marine research; enhanced 'on-the-water' marine science capabilities and investment in a new krill research laboratory in Hobart; and additional funding for environmental management in Antarctica, including remediation of contaminated sites. The funding also covered investment in 'enhanced international engagement' in Antarctic affairs.

Australia's Antarctic science priorities are centred around climate science, marine science, conservation, and environmental protection.

Australia's Antarctic Interests

Australia's Antarctic interests were publicly articulated in 2016 in the *20-Year Australian Antarctic Strategy and Action Plan*.³ These interests are to:

- maintain Antarctica's freedom from strategic and/or political confrontation;
- preserve our sovereignty over the Australian Antarctic Territory (AAT), including our sovereign rights over adjacent offshore areas;
- support a strong and effective Antarctic Treaty System (ATS);
- conduct world-class scientific research consistent with national priorities;
- protect the Antarctic environment, having regard to its special qualities and effects on our region;
- be informed about and able to influence developments in a region geographically proximate to Australia; and
- foster economic opportunities arising from Antarctica and the Southern Ocean, consistent with our ATS obligations, including the ban on mining and oil drilling.

The Strategy and Action Plan foreshadows advancing these interests through:

- leadership and influence in Antarctica;
- leadership and excellence in Antarctic science;
- leadership in environmental stewardship in Antarctica; and
- development of economic, educational and collaborative opportunities.

It should be noted that Antarctic policy has had a long history of bi-partisan (and multi-partisan) support. The present articulation of Australia's Antarctic interests is not too dissimilar to that contained in historical government documents of the latter half of the 20th century. Coherence around Antarctic sovereignty, support for the ATS, the conduct of science, and protection the environment, including support for the ban on Antarctic mining, adds strength to Australian

leadership in Antarctic affairs, and Australia's ability to influence future political and strategic developments.

Antarctica in Australia's Security

As outlined above, the Antarctic Treaty established the area below 60oS as a demilitarised region for as long as the Treaty remains in force. This provides a significant advantage to Australia: it does not need to establish and maintain a warfare capability for this region, and can concentrate on its military security orientation elsewhere in the region.

Maintaining the strength and stability of the Antarctic Treaty System is also central to Australian regional security. While the Antarctic Treaty remains in force, the status of the Australian Antarctic Territory remains and direct challenge to Australian Antarctic sovereignty is avoided.

Australia, along with France, was instrumental in stopping the 1989 *Convention on the Regulation of Antarctic Minerals* from entering into force, and instead drove negotiations that resulted in the 1991 agreement on the *Protocol on Environmental Protections to the Antarctic Treaty* (Environmental Protocol), and with it, an indefinite prohibition on mining in Antarctica.

Australia was also an active player in the negotiation of the 1982 *Convention on the Conservation of Marine Living Resources*, and the establishment of its international secretariat in Hobart. The Convention's commission meets annually in Hobart to set internationally legally-binding measures for the protection of marine living resources and the regulation of fishing activities in the Southern Ocean.

Australia's Antarctic security interests are not only centred on sovereignty and militarisation. Future global environmental and food security will require effective management of all the world's oceans. Ensuring that the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) maintains its focus and leadership in protecting the Southern Ocean is directly in Australia's interests. Antarctica and the Southern Ocean also play a key role in the global climate system. Understanding the future trajectory of climate change regionally and globally, requires increased scientific effort in, and understanding of, the Antarctic region – understanding climate change and its impacts on Australia, the region, and the globe is central to Australia's national security.

An Antarctic Security Outlook

In recent years there has been increased discussion of potential fractures in the Antarctic Treaty System. Some of this discussion has been around the rise of China, and speculation on whether China is charting a course to claim Antarctic territory (which would be contrary the Antarctic Treaty); whether China is conducting mineral exploration in Antarctica and will move to overturn the ban on mining; and whether China is militarising Antarctica through satellite and ground station facilities such as BeiDou. Russia also has been accused of non-scientific mineral-resource activities; and

³Australian Government 2016; updated in July 2022, at <https://www.antarctica.gov.au/about-us/antarctic-strategy-and-action-plan/>

of potentially militarising Antarctica. At the same time, there have been discussion about dual-use technologies and grey-zone activities that are seen to be a sign of the militarisation of Antarctica.

While the Antarctic Treaty prohibits military activities in Antarctica, it allows for "... the use of military personnel and equipment for scientific research or for any other peaceful purpose". Many Antarctic Treaty countries use military resources for logistic support, and as platforms and equipment for research. Increasingly, modern technologies such as satellites, drones and submersible vessels are being used for Antarctic research as they provide for safer data gathering and increased coverage of the continent and its surrounding waters. Much of this equipment does, or could, have military application, and, indeed, aircraft such as the C17-A used in resupply and support of Antarctic research would be clearly dual use. Some of these issues are discussed in a companion paper in this volume (Davis 2023).

In my view, the likely touch-points for future tension, erosion of stability, and potential conflict within the Antarctic Treaty System are in the signals that are being seen at the moment. Conservation measures relating to marine living resources are currently directly and indirectly the subject of strong opposition by China and Russia in CCAMLR. Both have blocked consensus on declaring further marine protected areas in Antarctica; and Russia has blocked consensus on setting fisheries catch limits in the South Georgia region of Antarctica. Both China and Russia appear to have taken the position that they will not agree to any further or new measures that might constrain their future fishing aspirations or that may set precedents in other international regimes. China, in particular, is looking to expand its krill fishing capabilities in Antarctica, and while Russia is not currently fishing in the Antarctic, its actions are creating the environment for deep international discord.

While there is no evidence of countries breaching the mining ban provision of the Environmental Protocol, China has talked of ensuring "balance" between conservation and use of the Antarctic, and Russia has active marine and terrestrial geological and geomorphological data-gathering programmes. While the mining ban itself will be difficult to overturn in the foreseeable future, tensions around mineral resource aspirations are likely to increase in the future.

Conclusion

Jeffrey McGee covers Antarctic futures analysis in another paper in this volume, so I will conclude this discussion with some suggestions for maintaining Australia's Antarctic interests, and maintaining the strength of the Antarctic Treaty System.

Investment in Australian Antarctic science and research capability is critical. Australia should have the ability to conduct nationally-prioritised research in the Southern Ocean and Antarctica, and to be able to reach, map and research all of the Australian Antarctic Territory and beyond. Its research and logistics capability also

should be used for international collaborations and capacity-building.

Australia should work with other countries to enhance the provisions of the ATS inspection regimes to give collective assurance that the provisions of the Antarctic Treaty System are being adhered to. This, too, should be a platform for capacity-building. Along with the inspection regimes, attention should be paid to adherence to, and quality of, reporting under various components of the ATS.

Australia should work with others to counter the undermining of modes and norms in the ATS. This requires skilled and engaged diplomacy. It too requires capacity-building within the ATS.

Lastly, Australia should be extremely careful to not take any actions that in themselves are seen to militarise Antarctica. While Australia should approach the future in Antarctica with its "eyes wide open" (Bergin and Press 2020), we should be seen as an exemplar of adherence to the ATS.

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