



Southern Ocean Observing System
International Project Office

Institute for Marine and Antarctic Studies
University of Tasmania
Private Bag 110
Hobart, TAS
AUSTRALIA, 7001

Phone +61 3 6226 6011
Fax +61 3 6226 2107

www.soos.aq

Submission to the Joint Standing Committee on the National Capital and External Territories: Inquiry into the Importance of Antarctica to Australia's National Interests

The Southern Ocean Observing System (SOOS) would like to thank the Joint Standing Committee on the National Capital and External Territories for the opportunity to provide a submission to the inquiry into the importance of Antarctica to Australia's national interests.

The Southern Ocean Observing System (SOOS) is an international initiative with the mission to facilitate the sustained collection and delivery of essential observations of the Southern Ocean to all stakeholders, through design, advocacy, and implementation of cost-effective observing and data delivery systems. Southern Ocean observations are sparse, difficult and expensive to obtain and are often limited in space, time, quality and variables measured. Further, repositories of Southern Ocean data are fragmented, rarely quality controlled, and difficult to access, greatly restricting interdisciplinary and potential uptake of globally important data. In 2011, the Scientific Committee on Antarctic Research (SCAR) and the Scientific Committee on Oceanic Research (SCOR) initiated SOOS to integrate national, international and discipline-specific Southern Ocean observing efforts to deliver an integrated, circumpolar observing system. SOOS is achieving these objectives through building collaborative networks and products that align priorities, supporting resource sharing across the international community and removing barriers to collaboration.

SOOS has over 800 members from 50 countries and 434 institutions, linking across disciplines, programs, nations and international initiatives in the Southern Ocean community. SOOS members include world leading researchers in Southern Ocean science including air-sea-atmosphere fluxes, ocean-ice interactions, sea ice, physical, chemical and biogeochemical oceanography, food-webs, biology and fisheries management, through to the world's leading polar data managers and engineers. Of these members, 15% are based in Australia from across universities and research centres, government departments, national facilities, fisheries management and private industry.

The SOOS International Project Office (IPO) has been sponsored and hosted by Australia since its inception in 2011. The location of the SOOS IPO in Australia has strengthened the connection of Australia-based Southern Ocean researchers with the international community, ensuring they have a finger on the pulse of internationally-led Southern Ocean research activities. SOOS is also enhancing the visibility of Australian research on the international stage and fostering collaborations for Australian researchers with international partners. This co-location with Australian-based researchers also means they are not only at the forefront of international Southern Ocean research but are themselves actively driving future Southern Ocean research. The strategic placement of the IPO has therefore provided Australia with opportunities to lead the setting of international priorities and strategies for Southern Ocean researchⁱ. This was demonstrated through the strong (32%) Australian authorship of the influential SOOS publication, "Delivering Sustained, Coordinated, and Integrated Observations of the Southern Ocean for Global Impact" (Newman et al., 2019)ⁱⁱ.

SOOS is strengthening Australia's territorial Antarctic claim by increasing the visibility of Australian Antarctic activities, building international partnerships in support of the Australian Antarctic Strategic Plan, including support for the Australian East Antarctic Monitoring Program through the Southern Ocean Indian Sector Regional Working Group and Capability Working Groups. SOOS IPO staff provide an independent voice at the Antarctic Treaty Consultative Meeting (ATCM) and Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) meetings which aligns with that of Australia's.

The co-location of SOOS with other Hobart-based programs provides a collective capability that makes Hobart one of the leading cities in the world for Southern Ocean and marine research. SOOS is a connector of all the Southern Ocean programs hosted in Hobart (including CCAMLR, ACAP the Agreement on the Conservation of Albatrosses and Petrels, Australian Antarctic Division, Australian Antarctic Program Partnership (AAPP), Australian Centre for Excellence on Antarctic Science (ACEAS), University of Tasmania's Institute for Marine and Antarctic Studies, CSIRO and Integrated Marine Observing System). Hobart's status as an Antarctic Gateway City has been strengthened by SOOS events held there, with 16 (18%) of SOOS events being run in Hobart. This includes the inaugural SOOS Symposiumⁱⁱⁱ, which was attended by 300 people from 25 nations. It is unlikely that any of these events would have been hosted in Hobart without the SOOS IPO being based in the city.

Australia has sponsored and hosted the SOOS IPO since its inception in 2011. For the Australian investment of approximately \$300,000 per year, SOOS has leveraged \$12,000,000 of international direct and in-kind services and access to facilities to support its activities. This includes unrestricted international funds to support the SOOS IPO staff and operations, which was \$63,000 in 2023 (including funds from SCAR and SCOR). SOOS has considerable in-kind support for the development, hosting and maintenance of its two key products, SOOSmap and DueSouth. The in-kind hosting of SOOSmap by the European Marine Observing Data Network (EMODnet) is valued at \$8,000,000, and the in-kind hosting of DueSouth by the European Polar Board is valued at \$150,000. SOOS has also received other considerable direct and in-kind sponsorship for SOOS activities which provide direct and measurable benefits to Australia; for example, the SOOS Symposium 2023 alone has been valued as being worth \$1,026,250 to the Tasmanian economy (valuation by Business Events Tasmania).

SOOS is now seeking a multi-year commitment from Australia to continue sponsoring and hosting the SOOS International Project Office in Hobart in a sustainable way. For two consecutive years, this commitment has been sought, but has been unsuccessful. Unless a suitable, multi-year bid can be secured, SOOS will be forced to release an international call for new hosts and sponsors of the SOOS IPO, and the relocation of the SOOS IPO to outside Australia.

The location of the SOOS IPO in Australia is internationally acknowledged and is an important component to Australia being recognised as a global leader in Antarctic science. The Southern Ocean is a vital component of the global climate system and to understanding climate impacts in Australia. It is more pressing than ever to have a sustained and coordinated Southern Ocean Observing System to understanding the current conditions and changes occurring in the Southern Ocean, informing predictions of future states, and support policies and regulations for the benefit of the Australian society.

Dr Alyce Hancock (Executive Officer, SOOS),
Dr Nicole Hill (Senior Researcher, Institute for Marine and Antarctic Studies, University of Tasmania and SOOS Scientific Steering Committee Member),
Professor Delphine Lannuzel (Professor, Institute for Marine and Antarctic Studies, University of Tasmania and SOOS Scientific Steering Committee Member), and
SOOS Executive Committee

Contact:

Dr Alyce Hancock

Executive Officer

Southern Ocean Observing System (SOOS)

International Project Office

Institute for Marine and Antarctic Studies, University of Tasmania

Phone: +61 3 6226 6011

Email: [REDACTED]

www.soos.aq

ⁱ Newman et al., Hancock, A.M., Hofmann, E., Williams, M.J.M., Henley, S.F., et al., (2022). The Southern Ocean Observing System 2021-2025 Science and Implementation Plan. DOI: <https://doi.org/10.5281/zenodo.6324359>

ⁱⁱ Newman, L., Heil, P., Trebilco, R., Katsumata, K., Constable, A., et al., (2019). Delivering, Sustained, Coordinated, and Integrated Observations of the Southern Ocean for Global Impact. *Frontiers in Marine Science* (6: 433). DOI: <https://doi.org/10.3389/fmars.2019.00433>

ⁱⁱⁱ <https://www.soos.aq/activities/soos-symposium/soos-symposium-2023>



SOOS is an initiative of the Scientific Committee on Antarctic Research
and the Scientific Committee on Oceanic Research

