



## The SOOS Data Portal, providing access to Southern Oceans data

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The Southern Ocean Observing System (SOOS) is an international initiative to enhance, coordinate and expand the strategic observations of the Southern Oceans that are required to address key scientific and societal challenges. A key component of SOOS will be the creation and maintenance of a Southern Ocean Data Portal to provide improved access to historical and ongoing data (Schofield et al., 2012, *Eos*, Vol. 93, No. 26, pp 241–243). The scale of this effort will require strong leveraging of existing data centres, new cyberinfrastructure development efforts, and defined data collection, quality control, and archiving procedures across the international community. The task of assembling the SOOS data portal is assigned to the SOOS Data Management Sub-Committee.

The information infrastructure chosen for the SOOS data portal is based on the Australian Ocean Data Network (AODN, <http://portal.aodn.org.au>). The AODN infrastructure is built on open-source tools and the use of international standards ensures efficiency of data exchange and interoperability between contributing systems. OGC standard web services protocols are used for serving of data via the internet. These include Web Map Service (WMS) for visualisation, Web Feature Service (WFS) for data download, and Catalogue Service for Web (CSW) for catalogue exchange. The portal offers a number of tools to access and visualize data:

- a Search link to the metadata catalogue enables search and discovery by simple text search, by geographic area, temporal extent, keyword, parameter, organisation, or by any combination of these, allowing users to gain access to further information and/or the data for download. Also, searches can be restricted to items which have either data to download, or attached map layers, or both
- a Map interface for discovery and display of data, with the ability to change the style and opacity of layers, add additional data layers via OGC Web Map Services, view animated timeseries datastreams
- data can be easily accessed and downloaded including directly from OPeNDAP/THREDDS servers.

The SOOS data portal (<http://soos.aodn.org.au/soos>) aims to make access to Southern Ocean data a simple process and the initial layout classifies data into six themes – Heat and Freshwater; Circulation; Ice-sheets and Sea level; Carbon; Sea-ice; and Ecosystems, with the ability to integrate layers between themes. The portal is in its infancy (pilot launched January 2013) with a limited number of datasets available; however, the number of datasets is expected to grow rapidly as the international community becomes fully engaged.