

Launch of new system for observing the Southern Ocean

February 17 2012

An international committee of experts will meet this month to begin the implementation of a new observing system for the study of the Southern Ocean.

The Southern Ocean plays a key role in the climate and ecosystem functioning of the whole planet, but understanding has long been hampered by lack of data. The science community has established the Southern Ocean Observing System (SOOS) to address this.

SOOS Executive Officer Dr Louise Newman said the new system highlighted the importance of a coordinated approach to research in the Southern Ocean.

"A key element of SOOS is the bringing together of different research communities to collectively tackle the really big issues confronting us" she said.

"Sustained, multi-disciplinary observations are required to detect, interpret and respond to change."

An international science committee has been formed, under the auspices of the Scientific Committee on Antarctic Research (SCAR), the Scientific Committee on Oceanic Research (SCOR), and other major international bodies. Dr. Mike Meredith of the [British Antarctic Survey](#) and Mr. John Gunn of the Australian Institute for [Marine Science](#) will initially chair the committee, which will meet in Salt Lake City this

month to take the first steps in implementing SOOS.

Once established, SOOS will enable greater global understanding of such challenges including [climate change](#), [sea-level rise](#), [ocean acidification](#) and the sustainable management of marine resources.

"To deliver this information, strategic observations of the changing physical, biogeochemical and biological state of the Southern Ocean are critical," Dr Newman said.

"Advances in technology and knowledge mean that it is now possible to design and implement a sustained, feasible and cost-effective observing system for this remote environment."

The SOOS was established in August last year after the four-year development of a Science Strategy, led by SCAR, SCOR and the World Climate Research Programme (WCRP), among others.

The scientific priorities of SOOS address issues such as the role of the Southern Ocean on the planet's heat and freshwater balance; stability of the Southern Ocean overturning circulation; the role of the ocean in the stability of the Antarctic ice sheet and its contribution to sea-level rise; future and consequences of carbon uptake; the future of Antarctic sea ice; and the impacts of global change on ecosystems.

Key to the success of SOOS will be delivering the new data to users seamlessly. SOOS will create a data portal, where researchers will be able to access all available [Southern Ocean](#) data, rather than only those created by their own programmes.

The SOOS International Project Office is hosted by the Institute for Marine and Antarctic Studies (IMAS) at UTAS with additional support from the Australian Antarctic Division (AAD), SCAR and SCOR.

"The SOOS office here is about coordinating and facilitating communication among groups, and driving the implementation of the new [observing system](#)" Dr Newman said.

More information: The SOOS Initial Science and Implementation Strategy document is available for download at www.soos.aq

Provided by British Antarctic Survey

Citation: Launch of new system for observing the Southern Ocean (2012, February 17) retrieved 25 April 2024 from <https://phys.org/news/2012-02-southern-ocean.html>

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