

SOOS  
SOUTHERN OCEAN  
OBSERVING SYSTEM

# The SOOS Mooring Network

## Saving Southern Ocean Data From Falling Through the Cracks

Jo Beja<sup>1</sup>, Steve Diggs<sup>2</sup>, David Pasquale<sup>3</sup>, Florence Fetterer<sup>4</sup>, Melissa Zweng<sup>5</sup>, Pip Bricher<sup>6</sup>

<sup>1</sup>British Oceanographic Data Centre, Liverpool, UK; <sup>2</sup>Scripps Institution of Oceanography, San Diego, USA; <sup>3</sup>University of Colorado Boulder, Boulder, USA;

<sup>4</sup>National Snow and Ice Data Center, Boulder, USA; <sup>5</sup>NOAA National Centers for Environmental Information, <sup>6</sup>Southern Ocean Observing System

Contact: data@soos.aq

The Southern Ocean Observing System (SOOS) is an international initiative with the mission to facilitate the collection and delivery of essential observations on dynamics and change of Southern Ocean systems to all international stakeholders (researchers, governments, industries), through design, advocacy and implementation of cost-effective observing and data delivery systems.

## Mooring Network

- Due to logistical challenges of collecting data in the Southern Ocean, projects in this region are particularly dependent on data from other nations
- Mooring data provides long time-series of data
- Particularly important in the sparsely sampled Southern Ocean

- Mooring data is hard to find because it is scattered across global data repositories
- The SOOS mooring network is a community-developed listing of all known moorings in the Southern Ocean

- Records provide links to the host data centres
- A low-tech, low-cost way for the community to share knowledge of mooring deployments

Fig. 2: The nations contributing to data to the SOOS Mooring Network

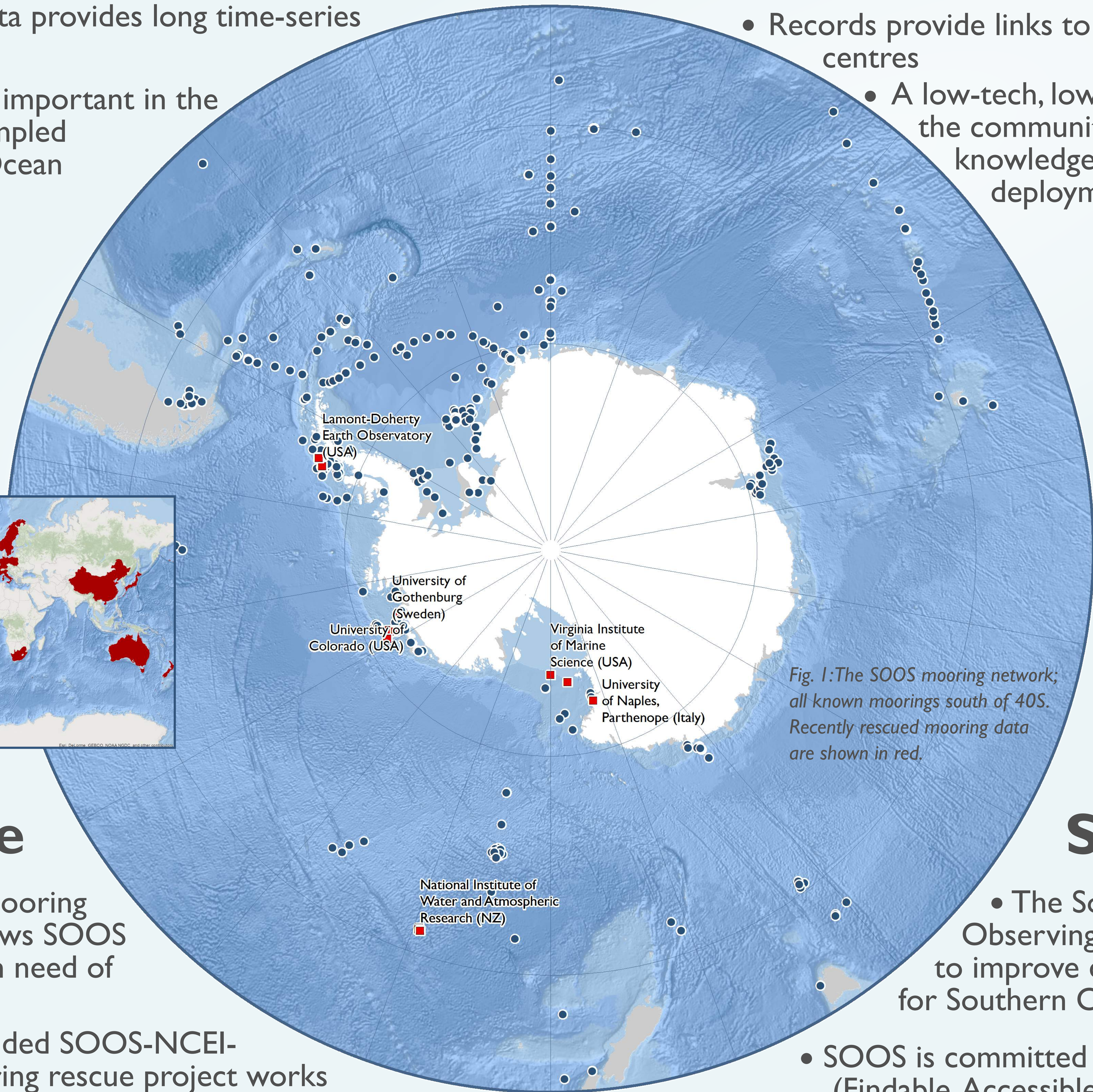
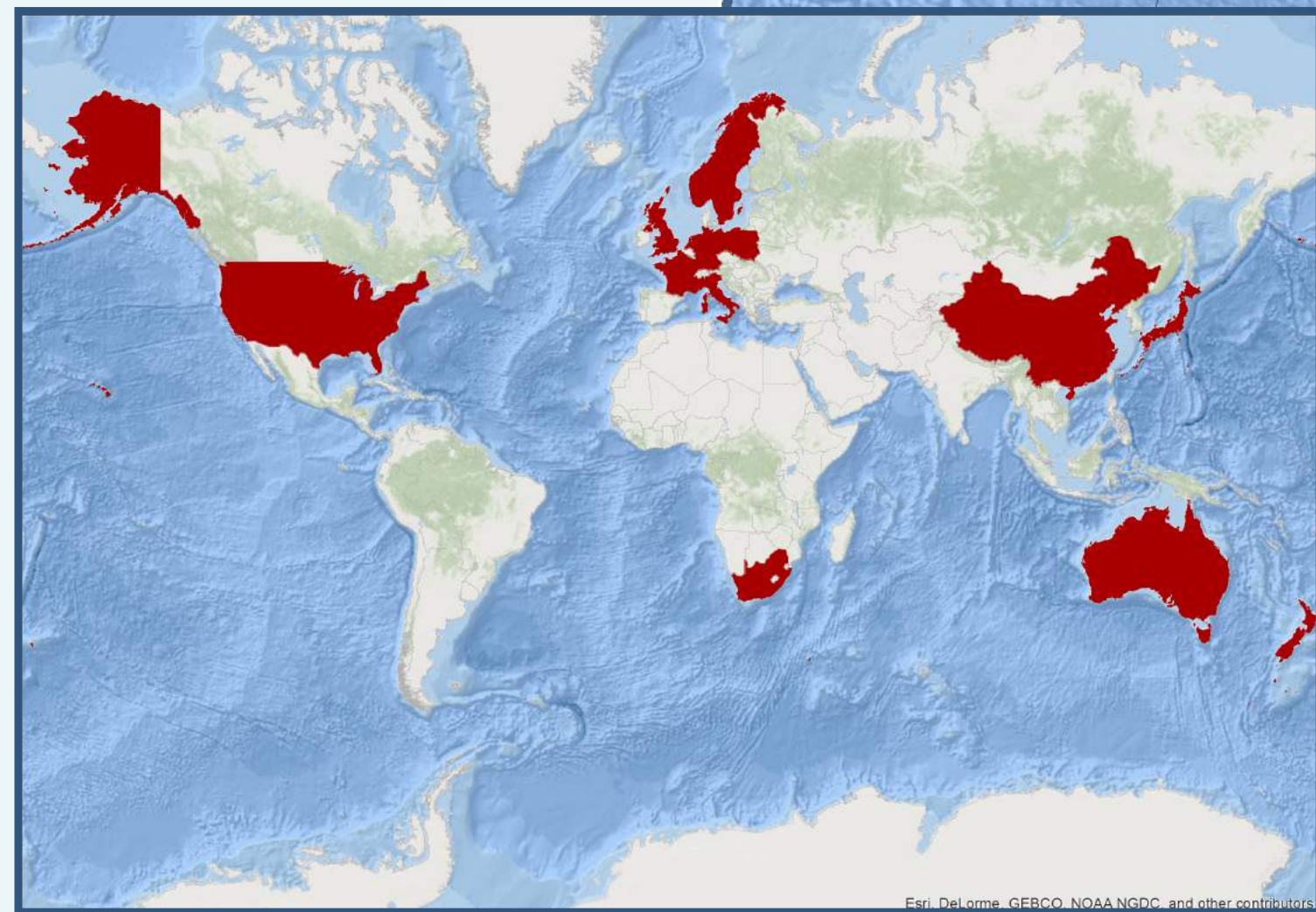


Fig. 1: The SOOS mooring network; all known moorings south of 40S. Recently rescued mooring data are shown in red.

## Rescue

- The SOOS Mooring Network allows SOOS to find data in need of rescue
- The BEDI-funded SOOS-NCEI-NSIDC mooring rescue project works with data owners to publish historic mooring data
- Mooring data files converted to CF-compliant netCDF files
- Each dataset given an ISO-19115 metadata record
- Data owners given the code to allow them to prepare their own data for publication in the future
- So far, data from 63 mooring deployments has been published through the NOAA National Centers for Environmental Information

## SOOS

- The Southern Ocean Observing System aims to improve data accessibility for Southern Ocean scientists
- SOOS is committed to the FAIR (Findable, Accessible, Interoperable, Reusable) data principles
- We hope to reduce the number of lost datasets in the future through *DueSouth, a database of upcoming expeditions in the Southern Ocean*
- Learn more on the SOOS website

[www.soos.aq/](http://www.soos.aq/)  
[www.soos.aq/soos-at-sea/moorings](http://www.soos.aq/soos-at-sea/moorings)

