## **Southern Ocean Region Panel**

John Fyfe (john.fyfe@canada.ca), Inga Smith (inga.smith@otago.ac.nz)

## Panel overview

The Southern Ocean Region Panel (SORP) is cosponsored by the World Climate Research Programme's the Climate and Ocean: Variability, Predictability and Change (CLIVAR) and the Climate and Cryosphere (CliC) projects, and the Scientific Committee on Antarctic Research (SCAR). The SORP serves as a forum for the discussion and communication of scientific advances in the understanding of climate variability and change in the Southern Ocean. It advises CLIVAR, CliC, and SCAR on progress, achievements, new opportunities and impediments in internationally-coordinated Southern Ocean research.

## **Achievements for 2016-17**

The SORP's main activity during 2016-2017 was to organize the 12th session (face-toface meeting) of its members and guests at the National Centre for Atmospheric Research (NCAR) in Boulder, Colorado, USA. The main obstacle to holding the SORP-12 was finding sufficient funds for travel and accommodation of members needing support, because CLIVAR funding administered through the ICPO was not available for any panel meetings in 2017. This obstacle was eventually overcome, with funding from US-CLIVAR, SCAR, and CliC, and a very successful meeting was held in conjunction with a Year of Polar Prediction (YOPP) - Southern Hemisphere meeting. The second main activity was to help instigate and support an initiative to establish a new northern panel as a natural cousin to the SORP. This new panel, titled the Northern Oceans Regional Panel (NORP), is now official under the auspices of CLIVAR and CliC. It is Co-Chaired by John Fyfe (Canada) and Amy Solomon (USA) and consists of 14 members organized into six task teams. The task teams are as follows: 1) Developing state-ofthe-art Arctic ocean reanalyses; 2) Understanding of the role of the Arctic ocean in Arctic amplification; 3) Advancing the understanding of climate variability due to Arcticmidlatitude linkages; 4) Quantifying the response to natural variability in the Arctic ocean: 5) Assessing model errors in Arctic projections through initialized forecasts: 6) Evaluating Greenland ice sheet and ocean interactions.

The CLIVAR/CliC/SCAR Southern Ocean Region Panel (SORP) has been very active, with a panel meeting in September 2016 alongside the CLIVAR Open Science Conference in Qingdao, China and another jointly with the Year of Polar Prediction Southern Hemisphere workshop in June 2017. Extensive participation in international research coordination and collaboration has occurred with several relevant programmes, including the Southern Ocean Observing System (SOOS), the Ocean Observations Panel for Climate (OOCP), the Year of Polar Prediction Southern Hemisphere (YOPP-SH) and the CLIVAR/CliC Northern Oceans Region Panel

(currently under formation). The panel has two new members (Robin Robertson and David Bromwich).

The SORP has proposed or help organize sessions at several international conferences including the CLIVAR Open Science Conference (Qingdao, China; September 2016) and Polar 2018. SORP co-sponsored a Townhall meeting on "Ocean-Cryosphere Interactions" at the CLIVAR Open Science Conference. The panel helped to organize a Polar Prediction Workshop in Bremerhaven, Germany (March 2017) co-sponsored by the Polar Climate Predictability Initiative (WCRP-PCPI), the Polar Prediction Project (WWRP-PPP), and the Sea Ice Prediction Network (ARCUS-SIPN). The panel was represented, with poster or oral presentations about SORP, at several international conferences/workshops, including the IGS/CliC/IACS International Symposium on The Cryosphere (Wellington, New Zealand, February 2017), the SOOS SSC meeting, and the SOOS/POGO Observing and Understanding the Ocean below Antarctic Sea Ice and Ice Shelves workshop (Bremerhaven, Germany, June 2017). The SORP has developed a template to maximize input from national reports, has solicited and posted to the website a series of national reports, and has strengthen coordination of national representatives between SOOS and SORP (led by Inga Smith).

The SORP has reported to several sponsoring and related organizations such as SOOS (Inga Smith and Jiuxin Shi; Bremerhaven, Germany, June 2017), the Ocean Observations Panel for Climate (OOCP; Katsuro Katsumata; WoodsHole, USA, March, 2017), the Polar Prediction Project (PPP) Steering Group (François Massonnet), the CLIVAR Scientific Steering Group (John Fyfe and Inga Smith, Qingdao, China, September 2016, and the CliC Scientific Steering Group (Inga Smith, Wellington, New Zealand, February 2017).

## Plans for 2018 and beyond

We propose that the thirteen meeting of the SORP be held 14-15 June 2018 in Davos, Switzerland in conjunction with the SCAR/IASC Open Science Conference (Polar 2018). Room bookings for SORP-13 are in place for 14-15 June with afternoon of Friday 15 June set aside for a joint meeting with NORP. Although this is outside the 18 months between meetings guidelines, SORP believes Polar 2018 is a unique opportunity for SORP to interact with the new NORP and to raise the profile of Southern Ocean oceanography in particular at the SCAR OSC aligned parts of Polar 2018.

Articles published in 2016/17 as part of panel activities (if any)

Not applicable.

Budget and other needs for 2018

Funding from SCAR is available to support the travel costs of members to this meeting. Funding from CliC will be requested to support the travel costs of members to this meeting. Funding is requested from CLIVAR of up to CHF 5000 for travel support for SORP members to attend SORP-13 on 14-15, June 2018 in Davos, Switzerland in conjunction with the SCAR/IASC Open Science Conference (Polar 2018).

#### Annex A

# Proforma for CLIVAR Panel requests for SSG approval for meetings

1. Panel or Working Group:

CLIVAR/CliC/SCAR Southern Ocean Region Panel.

2. Title of meeting or workshop:

13th Session of the CLIVAR/CliC/SCAR Southern Ocean Region Panel

3. Proposed venue:

Davos, Switzerland (alongside Polar 2018)

4. Proposed dates:

14-15 June 2018

5. Proposed attendees, including likely number:

SORP members (up to 14), and guests (up to 6 additional)

For joint meeting with NORP, up to 40 people (members of both panels and invited guests)

6. Rationale, motivation and justification, including: relevance to CLIVAR science & WCRP Grand Challenges, and any cross-panel/research foci links and interactions involved:

SORP believes Polar 2018 is a unique opportunity for SORP to interact with the new NORP and to raise the profile of Southern Ocean oceanography in particular at the SCAR OSC aligned parts of Polar 2018.

7. Specific objectives and key agenda items:

Build relationships and future collaborative activities with NORP, and also with SOOS (Southern Ocean Observing System: and international initiative of the Scientific Committee on Antarctic Research (SCAR) and the Scientific Committee on Oceanic Research (SCOR)). and ASPeCt (Antarctic Sea ice Processes and Climate: a SCAR expert group and co-sponsored by CliC) who will have members at Polar 2018.

Raise the profile of SORP and Southern Ocean oceanography in particular at the SCAR-aligned parts of Polar 2018. Southern Ocean oceanography has traditionally not been well-represented at SCAR Open Science Conferences, so SORP was actively involved in making sure oceanographic sessions were proposed for Polar 2018.

8. Anticipated outcomes (deliverables):

Pathway for future collaborations with NORP and SOOS and ASPeCt, as

recorded in meeting report.

Oceanographic and sea ice presentations by SORP members at Polar 2018. Specific "What SORP does" poster presentation.

**9.** Format:

Business meeting, with invited science talks and discussion.

10. Science Organizing Committee (if relevant)

Not relevant

11. Local Organizing Committee (if relevant)

Not relevant

12. Proposed funding sources and anticipated funding requested from WCRP:

SCAR: Up to approximately USD 3000 is available to support the attendance

of SORP members, particularly those who can contribute to building

relationships with SOOS and ASPeCt.

CliC: CHF2000 will be requested to support the travel costs of members to

this meeting.

CLIVAR: CHF 5000 is requested to support the travel costs of members to this

meeting.