

CLIVAR/CliC/SCAR Southern Ocean Region Panel

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Panel overview

The Southern Ocean Region Panel (SORP) is co-sponsored 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.

During the period 2017-2018 SORP organized two panel meetings, one in 29-30 June, 2017 at NCAR in Boulder, Colorado, USA (SORP-12) alongside the YOPP-SH workshop and another one in 14-15 June, 2018 at Davos, Switzerland (SORP-13) alongside the Polar2018 Conference. One of SORP co-chairs (R. Farneti) represented SORP at the SOOS SSC Meeting in May, 6-11 2018 in Hangzhou, China. One of the SORP co-chairs (Inga Smith) attended the following Polar2018 side meetings (Davos, Switzerland, 16-18 June 2018) of relevance to SORP: AntClim21 (workshop participant), ASPeCt (meeting participant), Southern Ocean Observing System (SOOS) Air-Sea Fluxes (meeting participant), SCAR Physical Sciences Group (presented SORP report to delegates and contributed to discussions). Some SORP members (Smith, Farneti, Katsumata, Robertson, Mazloff, Assmann) are contributing to the writing of a SOOS-led white paper for OceanObs19.

Katsuro Katsumata attended meetings of the Ocean Observations Panel for Climate (OOPC) 2015-2017 to represent SORP, and planned to do this in 2018, with hand-over to Robin Robertson planned for this liaison role in 2019. OOPC is sponsored by GCOS, GOOS, and WCR and is "a scientific expert advisory group charged with making recommendations for a sustained global ocean observing system for climate in support of the goals of its sponsors" (<https://public.wmo.int/en/programmes/global-climate-observing-system/ocean-observations-panel-climate-oopc>, accessed 16 August 2018). Since CLIVAR is also under WCRP, CLIVAR Basin Panels have been invited to OOPC annual meetings to broker recommendations and challenges. Partly due to funding cuts to WCRP and partly due to the shift in the range of activities in WCRP (e.g. Grand Challenges), OOPC and their hosts are in the process of restructuring the link between OOPC and other co-sponsored panels. There were no invitations issued to the CLIVAR Basin Panels in the OOPC meeting held in March 2018. Katsuro and the current and one of the former co-chairs of SORP (Lynne Talley) have been in email discussions with

Katherine (Katy) Hill (Scientific Officer, Ocean Observations, Global Climate Observing System and Global Ocean Observing System) and Mike Sparrow (WCRP Senior Scientific Officer, WMO Polar Focal Point) to gain insights into how best SORP can contribute to the on-going work of OOPC.

Achievements for 2017-18

SORP has been very active during 2017-2018. SORP organized a panel meeting jointly with the Year of Polar Prediction Southern Hemisphere workshop in June, 29-30 2017 (SORP-12) at the National Centre for Atmospheric Research (NCAR) in Boulder, Colorado, USA and a panel meeting alongside the Polar2018 Conference in June, 15-16 2018 (SORP-13) at Davos, Switzerland. During SORP-13, a joint session from SORP and the Northern Oceans Research Panel (NORP) was organized to discuss future collaborations and common research goals.

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 (OOPC) and the Year of Polar Prediction Southern Hemisphere (YOPP-SH).

The panel has two new members (Robin Robertson and David Bromwich) and an ex-officio representative of SOOS (Matt Mazloff).

National reports were obtained from 10 countries for 2017, which allowed SORP to see opportunities for further cooperation in the Southern Ocean.

Besides having an early career scientist among its panel members (F. Massonnet), early career scientists have been recruited for National Representative roles for Belgium, Germany, New Zealand and the UK. These roles are separate to full panel membership, and provide capacity building by involving more early career scientists in SORP activities than is possible with the strict fourteen member panel membership.

Plans for 2019 and beyond

During 2019, SORP members will attend OceanObs'19 in Hawaii, USA. A representation of SORP activities will be of particular importance in order to highlight international advances in the understanding of climate variability and change in the Southern Ocean, promote internationally-coordinated Southern Ocean research and the synergetic approach involving Southern Ocean observing and modeling communities including physical oceanography, cryosphere research, atmospheric science and biogeochemical oceanography.

Also, SORP panel members are contributing to two OceanObs'19 Community White Papers. One, drafted together with SOOS members and other Southern Ocean experts, is focused on *Delivering an Integrated Southern Ocean Observing System for Global Impact*. The second White Paper, in collaboration with all CLIVAR SSG members, panel chairs and RF leaders, is centered on *Ocean Climate observing requirements in support of Climate Research and Climate Information*.

In 2020, the fourteenth meeting of the SORP (SORP-14) will be held in conjunction with the SCAR Delegates' Meeting and Open Science Conference (OSC) in Hobart, Australia. Meeting during the SCAR OSC will provide a unique opportunity for organizing sessions and stimulating discussions with SOOS members.

During the joint SORP-NORP session at SORP-13/NORP-1, both panels decided to organize joint workshops on topics of common interest in order to strengthen collaboration. NORP and SORP have submitted a proposal for an Aspen Global Change Institute Workshop in 2019 on "*The role of fresh water in polar climate change and global linkages*". SORP and NORP are also considering jointly organizing an ICTP-CLIVAR Summer School in 2021.

Articles published in 2017/18 as part of panel activities (if any)

Not applicable.

Budget and other needs for 2019

Annex A

Proforma for CLIVAR Panel requests for SSG approval for meetings

- 1. Panel or Working Group:**
- 2. Title of meeting or workshop:**
- 3. Proposed venue:**
- 4. Proposed dates:**
- 5. Proposed attendees, including likely number:**
- 6. Rationale, motivation and justification, including: relevance to CLIVAR science & WCRP Grand Challenges, and any cross-panel/research foci links and interactions involved:**
- 7. Specific objectives and key agenda items:**
- 8. Anticipated outcomes (deliverables):**
- 9. Format:**
- 10. Science Organizing Committee (if relevant)**
- 11. Local Organizing Committee (if relevant)**
- 12. Proposed funding sources and anticipated funding requested from WCRP:**