

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 core projects the Climate and Ocean: Variability, Predictability and Change (CLIVAR) and the Climate and Cryosphere (CliC), 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 2019 highlights of SORP activities were: (i) SORP co-organized a session at the IGS Sea Ice Symposium; (ii) members of the panel participated at the OceanObs'19 Conference; (iii) the SORP co-chairs are co-authors on the CLIVAR-led OceanObs'19 conference whitepaper; and (iv) eight current, immediate-past, and ex-officio panel members are co-authors of the OceanObs'19 conference whitepaper related to Southern Ocean observations.

Achievements for 2018-19

SORP has been very active during 2018-2019. SORP organized a panel meeting (SORP-13) alongside the Polar2018 Conference in 15-16 June 2018 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. SORP, together with NORP, co-organized a session at the IGS Sea Ice Symposium in 19-23 August, 2019 at Winnipeg, Canada. The session mixed Arctic and Antarctic modeling and observational research and it was a great success in terms of talks and posters.

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), Antarctic Sea-ice Processes and Climate (ASPeCt, which is co-sponsored by CliC and SCAR) and the Year of Polar Prediction Southern Hemisphere (YOPP-SH).

The panel has four new members (Katy Altieri, Ronald Souza, Michiyo Yamamoto-Kawai, and Neil Swart) and an ex-officio representative of SOOS (Matt Mazloff).

National reports were obtained from 11 countries for 2018 so far, which allowed SORP to see opportunities for further cooperation in the Southern Ocean. All national reports can be downloaded from the SORP website (<http://www.clivar.org/clivar-panels/southern/national-representatives>).

Besides having an early career scientist among its panel members (F. Massonnet), early career scientists have been recruited for some of the National Representative roles. 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. F. Massonnet is due to rotate off SORP at the end of 2019, so SORP plans to recruit a new early career researcher to the main panel to replace him.

SORP members are also active in other activities while representing SORP. e.g., Sandra Barreira was invited as a lecturer at the ninth ODC (UNESCO/IOC Regional Training and Research Center on Ocean Dynamics and Climate) training course on climate dynamics and air-sea interactions in June 2019.

Plans for 2020 and beyond

SORP, together with NORP, will actively participate in the 2020 GOOS/GCOS workshop on heat and freshwater transport and storage. Amy (NORP) and Niel Swart (SORP) are on the organizing committee.

SORP will organize its 14th panel meeting (SORP-14) on 29-30 July, 2020, alongside the SCAR OSC, in Hobart, Australia. Also, there will be a SOOS meeting just before the SCAR OSC (3-7 August) and there are preliminary plans for a SOOS-SORP joint meeting with the Workshop on Antarctic Meteorology and Climate during those days. For 2020, SORP will recruit three new panel members to replace Heimbach, Klepikov and Massonnet. SORP will encourage early-career scientists applications to replace one or more panel members. Targeted nominations will be considered in order to maintain and expand the skills acquired and focus on the panel needs, following CLIVAR policies and considering geographical and gender balance.

Articles published in 2018/19 as part of panel activities (if any)

Newmann, L., P. Heil, R. Trebilco, K. Katsumata, A. J. Constable, E. van Wijk, K. Assmann, J. Beja, P. Bricher, R. Coleman, D. Costa, S. Diggs, R. Farneti, S. Fawcett, S. T. Gille, K. R. Hendry, S. F. Henley, E. Hofmann, T. Maksym, M. Mazloff, A. J. Meijers, M. P. Meredith, S. Moreau, B. Ozsoy, R. Robertson, I. R. Schloss, O. Schofield, J. Shi, E. L. Sikes, I. J. Smith, S. Swart, A. Wahlin, G. Williams, M. J. Williams, L. Herraiz-Borreguero, S. Kern, J. Lieser, R. Massom, J. Melbourne-Thomas, P. Miloslavich, G. Spreen (2019), Delivering sustained, coordinated and integrated observations of the Southern Ocean for global impact. Proceedings of OceanObs'19, Frontiers in Marine Science. doi:10.3389/fmars.2019.00433

Stammer, D., A. Bracco, L. Beal, N. Bindoff, P. Braconnot, W. Cai, D. Chen, G. Danabasoglu, B. Dewitte, R. Farneti, K. Takahashi Guevara, B. Fox Kemper, J. Fyfe, S. Griffies, S. Jayne, R. Mathew Koll, A. Lazar, M. Lengaigne, X. Lin, S. Marsland, P.

Monteiro, W. Robinson, R. Rykaczewski, S. Speich, I. J. Smith, A. Solomon, J. Vialard (2019), Ocean climate observing requirements in support of climate research and climate information. Proceedings of OceanObs'19, Frontiers in Marine Science. doi:10.3389/fmars.2019.00444

Budget and other needs for 2020

Budget request for 2020:

CHF 5500

For SORP-14 in July 2020: Travel support for SORP members to attend SORP-14 and relevant side-meetings and the SCAR OSC.

(See Annex A for more details)

Other needs for 2020:

We continue to appreciate the excellent support of the CLIVAR ICPO. In 2020, we anticipate continuing the same draw on ICPO resources through administration such as minute-taking at teleconferences, use of Go-To-Meeting to host teleconferences, website updates, coordination of CLIVAR matters, and coordination with co-sponsors SCAR and CliC (e.g., for budgets and travel requests). We would also appreciate Liping Yin being able to attend SORP-14 in person so that she can take minutes for the meeting and help draft the report on the meeting.

Please keep in mind that the overall budget of CLIVAR is limited and this needs to be distributed between all activities and the SSG meeting.

Aim for a total length of ~2 pages, more is fine, but not necessary

Annex A

Proforma for CLIVAR Panel requests for SSG approval for meetings

1. **Panel name: Southern Ocean Region Panel**
2. **Title of meeting or workshop: The 14th Session of the CLIVAR/CliC/SCAR Southern Ocean Region Panel (SORP-14)**
3. **Proposed venue: Hobart, Australia**
4. **Proposed dates: 29-30 July 2019**
5. **Proposed attendees, including likely number: SORP panel members, including any national representatives who are able to attend. Likely up to 20 people for the panel meeting, plus another 30 for the half-day joint session with SOOS and WAMC.**
6. **Rationale, motivation and justification, including: relevance to CLIVAR science & WCRP Grand Challenges, and any cross-panel/research foci links and interactions involved: SORP-14 will be the first in-person meeting for SORP since 2018. The meeting will be an opportunity for some of the new members to present their work and discuss their involvement in SORP future plans.**
7. **Specific objectives and key agenda items: Coordination with SOOS, WAMC, and ASPeCt following YOPP-SH second special observing period. During the meeting SORP will discuss the recent IPCC Special Report on Ocean and Cryosphere in a Changing Climate and the progresses on SORP Task Teams. Also, there will be a discussion related to the GOOS/GCOS workshop on heat and freshwater transport and storage (which is co-organized by NORP and SORP) and how SORP can contribute to the science questions identified during the workshop.**
8. **Anticipated outcomes (deliverables): SORP-14 report**
9. **Format: Business meeting, as a side meeting before SCAR Open Science Conference**
10. **Science Organizing Committee (if relevant) Not applicable**
11. **Local Organizing Committee (if relevant) Not applicable**
12. **Proposed funding sources and anticipated funding requested from WCRP: SORP is co-sponsored by CLIVAR, CliC, and SCAR. SCAR has approved USD 4000 to support member travel to this meeting, targeted at early career members and members from countries with developing Antarctic research programmes. CliC and CLIVAR in 2018 coordinated support from WCRP between them, whereas previously requests were made by SORP separately to both**

organisations. The request for SORP funding from CLIVAR is for CHF 5500 to support member travel to SORP-14.