

Standing Scientific Group on Physical Sciences (SSG-PS) Report

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Important Issues or Factors:

Expert Group IPICS was externally reviewed and received outstanding endorsement from all reviewers for its continuation.

Scientific Research Programme AntClim²¹ was enthusiastically supported by the external reviewers.

Recommendations/Actions and Justification:

Renewal of Expert Group IPICS is strongly recommended.

Continuation of Scientific Research Programme AntClim²¹ is strongly recommended.

Support for new Expert Group FRISP and Action Group TATE is strongly recommended.

Action Groups PACT and Southern Ocean Acidification will complete their activities by the end of 2016 and be disbanded.

Budget Implications:

SSG-PS requests \$28.5K in 2017 and \$28.5K in 2018 to support meetings and activities of the Expert Groups and Action Groups. These requests are designed to fit realistic totals likely available from SCAR; additional funding is needed and would be greatly appreciated.

Other Issues

- The Deputy Chief Officer position has not been filled so far because no suitable candidates were present at the business meeting. An email solicitation since has garnered 4 expressions of interest. An electronic election will be held for the post very soon.
- The SSG doesn't have a strong opinion on the replacement name. Physical Sciences Group – fine.
- The SSG prefers to keep Action Groups and Expert Groups – well defined entities and easy to manage. Tasks groups seem a vague and “one size fits all” approach.

FRISP: Forum for Research into Ice Shelf Processes – Proposed New Expert Group

- Developed by SCAR in 1983 with specific geographical focus on the Filchner-Ronne Ice Shelf.
- Broadened the scope to all of Antarctica and Greenland.
- Will hold 30th conference October 2016 in Sweden.
- Desires to be a SCAR expert group under SSG-PS to focus on the oceanic and atmospheric processes governing the behavior of ice shelves that are key to the ice sheet contribution to sea level change.

Steering Committee as of 21st August 2016

Chair: Adrian Jenkins, British Antarctic Survey, U.K.

National representatives:

U.K.: Keith Nicholls, British Antarctic Survey.

Germany: Hartmut Hellmer, Alfred-Wegener-Institute.

Norway: Svein Østerhus, Bjerknes Centre for Climate Research.

Sweden: Anna Wåhlin, University of Gothenburg.

U.S.A.: David Holland, New York University.

Korea: Sang Hoon Lee, Korean Polar Research Institute.

Australia: Richard Coleman, University of Tasmania.

Japan: Shin Sugiyama, Hokkaido University.

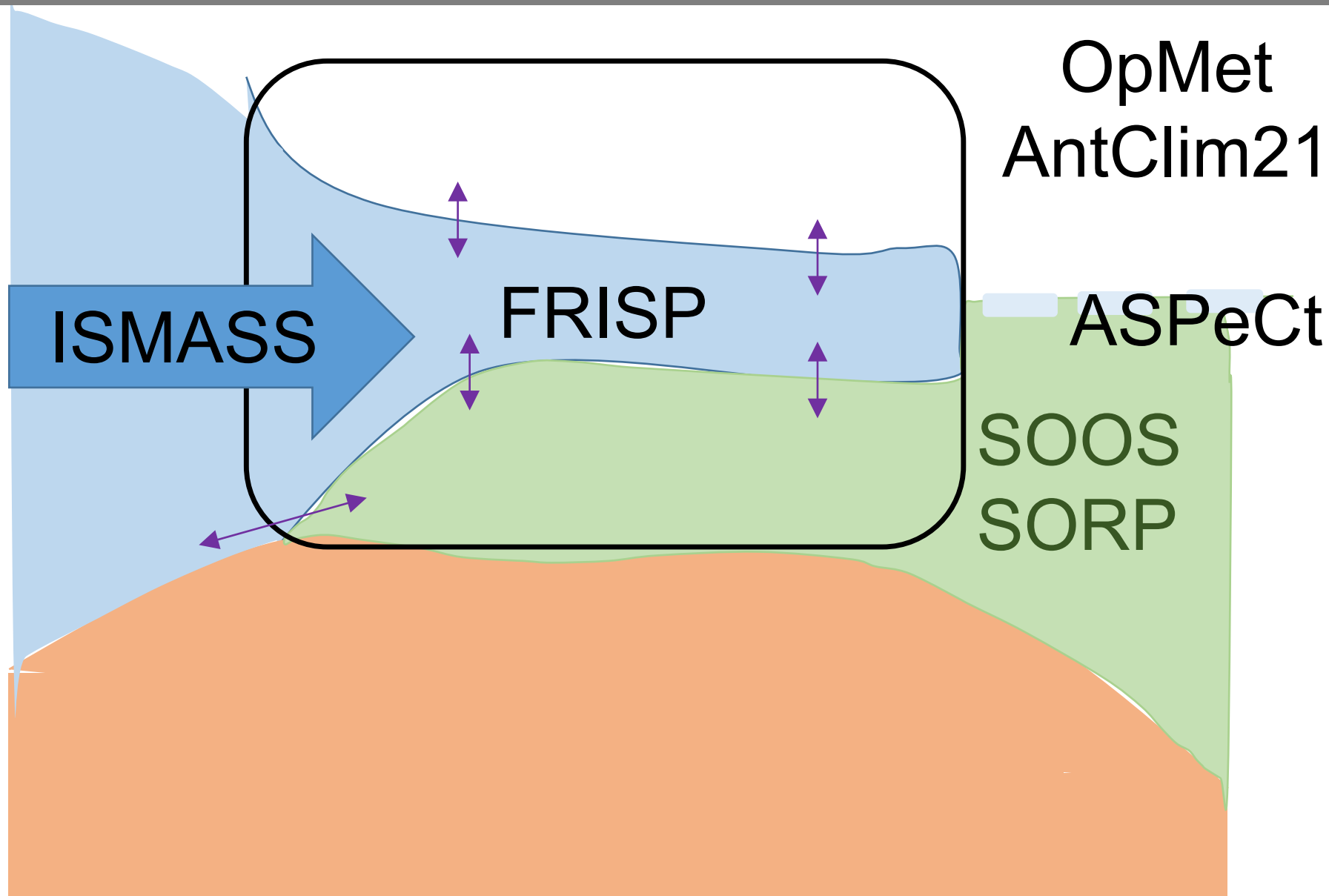
Early career scientist representatives:

Elin Darelus, University of Bergen.

Tore Hattermann, Alfred-Wegener-Institute.

Laura Herraiz-Borreguero, National Oceanography Centre Southampton.

Connecting existing SSG-PS expert groups



Funding request

- 3K USD each in 2017 and 2018 to support FRISP workshop participants who have limited access to travel support especially students and early career scientists.
- SSG-PS is acknowledged in all workshop announcements.
- Awarded individuals are referred to as “SCAR Bursaries.”
 - 1) The availability of SCAR Bursaries and the criterion for application (the need for financial support for attendance) will be indicated in the workshop announcements.
 - 2) Those wishing to apply for a SCAR Bursary will be required to indicate their intention when registering and provide a separate one page justification (including intended workshop contribution, an estimate of the total cost of attendance, including travel, and a justification for the award of a Bursary).
 - 3) The closing date for SCAR Bursary applications will be in advance of the general registration deadline and will be notified in the workshop announcements.
 - 4) Awards will be confirmed shortly (typically two weeks) after the closing date.
 - 5) No funds will be paid directly to awardees, but the bursary will be used by the local organising committee of the relevant workshop to subsidise the registration and accommodation costs, such that awardees can be charged reduced rates.
 - 6) The scheme will be administered by the local organising committee, but the distribution of awards will be subject to approval by the FRISP Steering Committee.
 - 7) The operation of the Scheme will be subject to periodic review by the FRISP Steering Committee.

Tropical Antarctic Teleconnections Action Group (TATE AG) – Proposed New Action Group

Proposers:

Azizan Abu Samah (Malaysia)

David Bromwich (USA)

Francisco Aquino (Brazil)

Jefferson C. Simões (Brazil, Chair)

Kyle Clem (New Zealand)

Seong-Joong Kim (Korea)

Overview

There are very distinct connections between tropical and Antarctic climates, particularly over the South Pacific and South Atlantic with the West Antarctic/Antarctic Peninsula regions, but these are not fully explored. For example, atmospheric wavetrains show spatial and temporal (seasonal, interannual) variations in both regions. Complements AntClim21 by focusing on processes rather than coupled climate modelling. Only nominal funds are requested to support this AG with most resources expected to come from external to SCAR.

Goals

1. This AG intends to increase discussion and collaboration to explore tropical and polar weather and climate interactions, carrying out at least one interdisciplinary workshop;
2. To investigate the tropical forcing of the atmospheric circulation in the present and in the recent past (the last 200 years based on proxy records such as shallow ice core studies);
3. To explore the air-sea ice coupled systems and their relation to weather and climate of the tropics and subtropics, including interactions with the monsoon systems;
4. To have case studies on the relation between complex weather and climate patterns in the South Atlantic, Indian and Pacific regions and the Southern Ocean sea ice cover, and how they are connected to natural modes of climatic variability (e.g., ENSO, SAM, PSA, PDO) or anthropogenic-induced changes;
5. To organize a session at the XXXV SCAR (Davos, 2018) exploring the tropical polar teleconnections (to be carried out together with IASC);
6. To produce at least a special volume of articles on the tropical polar teleconnections.

Proposed SCAR SSG-PS Budget for 2017 and 2018

<u>Group</u>	<u>2017</u>	<u>2018</u>	<u>Use/Comments</u>
ACCE EG	2000	2000	SCAR Budget Convenience
ANTOS EG (LS/GS)	2000	2000	Workshop. Database develop.
ASPECT EG	3000	3000	Meetings
FRISPE EG (TBD)	2000	2000	Meetings
GRAPE EG (GS)	4000	2000	Mtgs,-website.
IPICS EG	0	3000	Oldest Ice Meeting.
ISMASS EG	2500	2500	Workshops.
OpMet EG	2000	2000	AMOMFW Mtgs. 17 & 18.

SORP	2000	2000	SCAR Budget Convenience
ACAAG	0	0	No funds requested
Remote S. AG (LS)	500	500	Early Career Travel
SERAnt AG	1500	1500	Mtgs.
SnowAnt AG	2000	2000	Snow Schools
TATE AG (TBD)	500	500	Meetings
SSG-PS	4500	3500	Contingency/Early Career Travel.
Total:	\$28.5K	\$28.5K	