

Summary of the meeting goals and outcomes:

The goal for this meeting is a concise assessment of what has been accomplished so far and what specific tasks need to be undertaken in order to achieve predictions of climate on seasonal, interannual and decadal timescales in the context of the Southern Ocean region. Beyond improving modeling skill, these tasks include evaluating the current status of various assimilation products and filling gaps in the Southern Ocean Observing System. ***We urge the various presentations to focus on the specific questions each program has (or will have) answered – and what questions will remain.***

We would like to see our efforts lead to some form of paper or article/review. We are considering Reviews of Geophysics. This might take the form of a report on the status and role of the Southern Ocean system in climate, with contributions from each of us.

We would also like to help define the research needs for SOOS (Southern Ocean Observing System - note that ice, biology, are also part of this) and evaluating the SOOS plan for adequate sampling of the climate system. This effort will feed into the OceanObs09 effort.

We should also address SO reanalyses: to continue to lobby for and support a SO component of an "IPY data synthesis", and to provide input to GSOP, to begin to evaluate reanalysis products, etc.

Outcomes:

1. SOOS evaluation
2. Carbon science observing system within SOOS
3. Climate/Carbon process study development
3. Report of state of southern climate system variations and key modes
4. Identification of the key gaps in SO climate modeling – to be sent to CLIVAR WGOMD
5. Atmosphere and Ocean Reanalysis and fluxes in Southern Ocean/Ice system
6. Report and Reviews of Geophysics submission

Kevin Speer and Matthew England
December 17, 2008

Panel members

Matthew England (co-chair)
Kevin Speer (co-chair)
Yasushi Fukumachi
Steve Rintoul
Dave Thompson

Panel members NOT attending

Alberto Naveira Garabato
Michiel van den Broeke
Eberhard Fahrback (Ex-Officio)
Christian Haas
Alex Orsi (Ex-Officio)
Hugues Goosse
Doug Martinson
Ian Renfrew
Niki Gruber
Sabrine Speich

Confirmed invited guests:

Harry Van Loon
Gareth Marshall
Richard Matear
Joellen Russell
Siobhan O'Farrell
Alex Sen Gupta
Tony Worby
Jean-Baptiste Sallee
Harry Hendon
Ben McNeil
Simon Josey
Matt Mazloff
Ian Allison

ICPO:

Kate Stansfield
(Mike Sparrow) for SOOS/SCAR business items
(reported by Kate)

Other suggested contributions/topics (whether or not attending):

Kate Stansfield - CLIVAR issues
(Mike Sparrow) - SOOS/SCAR business items (reported by Kate)
Matthew England – ocean / climate models and processes – and lavish entertainment
Kevin Speer - Lateral exchange by AA-zone gyres and fronts; DIMES; SOSE
Dave Thompson - Climate trends and ocean-troposphere-stratosphere interaction
Yasushi Fukamachi - GSOP report; Transport measurements (e.g. Kerguelen boundary current and others)
Steve Rintoul - SO water mass changes (e.g. Boening et al); status of SOOS document
Sabrina Speich - Goodhope and related activities; Agulhas and SO climate

Confirmed invited guests (see also schedule)

Tony Worby - trends in sea-ice and polynya production, CLiC update
Richard Matear - Carbon community interest in sustained obs and process study
Harry Van Loon - SAO variability, 1970's crash, and the annual cycle
Gareth Marshall - SAM and SAO distinctions and other evidence for climate change.
Siobhan O'Farrell - SOPHOCLES
Alex Sen Gupta - modeling

Not attending but succinct updates requested:

(Niki Gruber) – Carbon system sustained observations
(Christian Haas) - sea-ice update, IPAB
(Doug Martinson) – Results from LTER
(Alberto Naveira Garabato) - Interaction of isopycnal and diapycnal mixing in the ACC and overturning
(Michiel van den Broeke) replaced by Gareth Marshall – Sustained observations and reanalyses
(Eberhard Fahrback) - Weddell Sea and surface freshening
(Alex Orsi) - exchanges at the slope/shelf, trends in shelf overflows
(Hugues Goosse) - IPCC class models and predictions; are there unobservable modes?
(Bourassa/Gille) - Will provide a statement of needed met obs for observing climate signals
(Ian Renfrew) – Evaluation of recommended meteorological observations