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Southern Ocean Deep Ocean Change Workshop – June 21-23 June

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Overview

Accurate estimates of the total sea level budget and carbon inventory must include all components of the earth system that contribute to sea level rise and carbon storage. The deep ocean component (below 2000m) of the observed sea level budget is highly uncertain. Comparison of repeat hydrographic sections has revealed statistically significant warming of the abyssal oceans. While the sparse data makes quantification of these changes difficult, they do appear large enough to be significant contributors to global heat, and sea level budgets. Accurate simulation of the abyssal ocean properties and circulation in climate models would enable us to use the models to explore the processes governing the deep ocean warming, freshening and carbon sequestration needed to provide reliable projections of global and regional carbon and sea level budgets.

Southern Ocean Workshop Aims

This workshop will bring together members of the Southern Ocean, Indian and South Pacific and South Atlantic Oceans observational (physical, chemical, biogeochemical, carbon, tracers) and modeling communities to discuss the observed abyssal property changes and simulation in climate models. The expected outcome of the workshop is a synthesis manuscript of observed changes and their model simulations for consideration of the IPCC AR5 report. The workshop will also provide the stimulus for future model and observation comparison studies.

Agenda

3 Day workshop will comprise of:

- Short (15-20 minute) talks that highlight new insights and research directions currently underway in the research and climate modeling communities.
- Significant time for discussion between talks to open discussion of similarities of changes in each basin and formation regions of Antarctic Bottom Water.
- Break out group discussions to develop topics for collection of synthesis papers in preparation of IPCC AR5

Details

- CSIRO Wealth from Ocean Flagship and CSIRO Office of Chief will provide funding for accommodation and meals for approximately 30 participants. Flight cost will have to be covered by participants.
- Dates of Workshop: 21-23 June 2010, Hobart Australia
- Target individuals are those involved in analysis of Southern Ocean, Pacific, Indian and South Atlantic abyssal change and variability and have the motivation to participate in preparation of synthesis papers
- Notice of workshop and invitation to be sent by early March. Please see me or email if interested in participating in workshop

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Thank you

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