

SCOR AFFILIATED PROGRAMME - International Antarctic Zone (iAnZone)
Report of Activities for 2006 - 2007
40th Executive Committee Meeting of SCOR
Bergen, Norway, August 2007

Dr Alejandro H. Orsi and Dr. Andrea Bergamasco (co-Chairs of iAnZone)

Introduction

iAnZone was conceived in the late 1980s with the **goal** to advance our knowledge of Southern Ocean processes, with emphasis in ocean-ice-atmosphere interactions within the vast regions south of the Antarctic Circumpolar Current, their seasonal cycle, inter-annual and decadal variability, and the links between the Antarctic Zone and the global ocean and climate system. At formal biennial meetings iAnZone researchers, primarily physical oceanographers, develop and coordinate new observational and modelling programs. iAnZone was accorded SCOR Affiliated Programme status in early 1997, and SCAR affiliation started in 2004. The Chair of iAnZone represents the programme on the CLIVAR/CliC/SCAR Southern Ocean Panel, and on the SCAR/SCOR Expert Group in Oceanography.

iAnZone **objectives** are (i) to provide an active forum for Antarctic oceanographers to exchange ideas, plans, results and data; (ii) to identify, develop and coordinate research projects; (iii) to facilitate coordination among Antarctic and global climate programmes, and among other Southern Ocean programmes; and (iv) to advise on the development of appropriate observing systems, datasets and modelling strategies needed to assess the scales and mechanisms of climate variability in the Antarctic Zone.

A series of five coordinated, multi-investigator, international and highly successful iAnZone projects have been developed at previous iAnZone meetings. Among these programs are the Ice Station Weddell in 1992, AnzFlux in 1994, Dovetail in 1997-1998, AnSlope in 2003-2004, and ISPol-1 in 2004-2005, and MaudNESS in 2005.

Current and Future Scientific Activities

iAnZone plays a major role during the **International Polar Year** by overseeing the Synoptic Antarctic Shelf-Slope Interactions Study (SASSI), a leading project for a cluster of proposals addressing scientific topics on the Antarctic coasts and margins. SASSI is the next (6th) major project coordinated by iAnZone, scheduled for 2007-2009 as a contribution to the **International Polar Year**. Its sampling strategy includes a web of synoptic sections across the Antarctic continental slope and shelf. These would measure water mass properties and transports, deploy moorings, drifters and floats, and provide a resource for other measurements such as biogeochemical analyses. The scientific goal of SASSI is to monitor and understand the processes of water mass formation and transformation on the Antarctic continental shelf and slope. More information about this project can be found on the SASSI website: <http://sassi.tamu.edu>. Participation by countries new to iAnZone, or new to Antarctic research, is warmly welcomed. SCOR, through this report, may be able to extend our invitation to such scientists to join our research cruises where appropriate.

Future Meetings

The 10th iAnZone biennial meeting will take place 27-28 August 2007, in Bergen, Norway, collated with the Open Science Conference of the Polar Dynamics Meeting. It will provide a valuable mechanism for coordinating ongoing research programs in the Southern Ocean. A dedicated session to exchange plans for upcoming IPY-SASSI activities is scheduled during this meeting.

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Committee Membership

Alejandro Orsi (Co-Chair; USA)

Andrea Bergamasco (Co-Chair; Italy)

Karen Heywood (ex officio as past Chair; UK)

Shuki Ushio (Japan)

Zhanhai Zhang (China)

Mauricio Mata (Brazil)

Alexander Klepikov (Russia)

Timo Vihma (Finland)

Vicky Lytle (Norway; CliC)

Emanuelle Houssais (France)

Mike Schroeder (Germany)

Mar Flexas (Spain)

Guy Williams (Australia)

iAnZone website, <http://www.ldeo.columbia.edu/res/fac/physocean/ianzone>, and mailing list, ianzone@ldeo.columbia.edu, are open to all for the exchange of information regarding projects and opportunities in the Antarctic Zone.