

## **ASPeCt (Antarctic Sea ice Processes and Climate)**

ASPeCt is a program of multi-disciplinary Antarctic sea ice zone research within the SCAR Global Change and the Antarctic (GLOCHANT) program.

<http://www.antcrc.utas.edu.au/aspect>

The overall aim of ASPeCt is to understand and model the role of Antarctic sea ice in the coupled atmosphere-ice-ocean system. This requires investigation of the key processes that determine the character of Antarctic sea ice, and the determination of physical, chemical and biological properties of the sea ice zone.



These are addressed by two key objectives which are:

- I To establish the basic physical properties of sea ice that are important to air-sea interaction and to biological processes within the Antarctic sea ice zone. These include:
  - ice and snow cover thickness distributions
  - structural, chemical and thermal properties of the snow and ice
  - floe size and lead distribution
  - upper ocean hydrography

These data are required to derive forcing and validation fields for climate models and to determine factors controlling the biology and ecology of the sea ice-associated biota.



- II To understand the key sea ice zone processes necessary for improved parameterisation of these processes in coupled models.

The Antarctic sea ice zone remains one of the least understood regions of the earth's surface. Apart from satellite derived data on ice extent and concentration, there are few reasonable climatological estimates of ice conditions that can be used for validation of numerical models. What limited information we have, mostly from the Weddell Sea, indicates that the ice characteristics and the dominant processes in the Antarctic are substantially different from those in the central Arctic.



One of the major projects of the SCAR Global Change and the Antarctic ASPeCt program is to develop a seasonally and regionally varying climatology of sea ice thickness and characteristics around Antarctica.

To achieve this objective it is planned to conduct ship-based ice observations between the ice edge and the continent at least once each season in the period 1998 - 2007 at approximately 15° longitude spacing.

Your data will help us to achieve this goal. Record your data on the Observation forms and then transfer them to the PC database using the software provided on this CD-ROM. Forward the complete **digital** data set to the ASPeCt Project scientist.



## Address:

Dr Anthony Worby  
Australian Antarctic Division  
Channel Highway  
Kingston  
Tasmania 7050  
AUSTRALIA

email: [A.Worby@utas.edu.au](mailto:A.Worby@utas.edu.au)

ph: +61 3 6226 2985

fax: +61 3 6226 7650

