

SCAR WORKING GROUP ON GEOSCIENCES
MINUTES OF MEETING
15th -16th July 2002, Shanghai

The meeting started with the agreement that Phil O'Brien should chair the meeting and Rudolph Trouw act as secretary.

The meeting was opened and participants introduced themselves. The list of participants is attached.

We discussed the agenda and the initial order of business was agreed to be:

- a. New SCAR structure
- b. International Projects
- c. Reports of Groups of Specialists and other groups.
- d. National reports

New SCAR Structure

The proposed structure of SCAR was described.

The merger of the Working Group on Geosciences with the Working Group on Geodesy and Geographic Information was discussed. A number of members expressed their concern that it will be harder to get national organisations to support participation of several representatives with a range of necessary expertise.

The relationship between the new Standing Scientific Group on Geosciences and subgroups such as Action Groups were discussed.

The group held a consultation process to identify the major issues that the Standing Scientific Group will need to address through subgroups such as Action Groups.

The major issues identified were:

- Antarctic Neotectonics.
- Climate and environmental change
- Observatory Geophysics
- Subglacial Lakes
- Subice geology
- Antarctic basement geology
- Permafrost and surficial processes
- Geological and geophysical data exchange and management
- Environmental impacts of marine acoustic technology
- Antarctic continental margin evolution

It was decided to return to this agenda item later (see page 3).

International Projects.

Antarctic Geological Drilling Project (ANDRILL) - A report on progress in establishing the project structure was given by Ross Powell.

Reports of Groups of Specialists and other groups

Aeromagnetic Digital Map of Antarctica (ADMMap) - Detlef Damaske reported that the map was published however the data base was not obviously available. He undertook to locate the data base and arrange with the custodians to make it available to the scientific community.

Age, Growth and Evolution of Antarctica (AGEANT) - A meeting was held in Strasbourg in 2001 and another will be held in association with the ISAES in Potsdam. Work is underway on the development of a web-based geochronological data base.

Environmental impacts of marine acoustic technology - There was a workshop in Cambridge in September 2001 involving members of the WGs of Geoscience and Biology and experts in the field of marine mammals and acoustics and geophysics. The report has been written and was tabled. It is still being reviewed externally. A meeting was organised by DFG (German funding agency) in Berlin in June 2002. The recommendations of the SCAR report were largely supported by the leading experts in the field.

Antarctic Neotectonics (ANTEC) - Terry Wilson gave a brief summary of recent progress in this GoS. A workshop was held in Siena 2001 with 60 participants. A more detailed account was scheduled for the meeting of the Standing Scientific Group on Thursday or Friday.

Subglacial Antarctic Lake Exploration Group of Specialists (SALE) - Robin Bell described the results of 2 meetings held in November 2001 in Italy and May 2002 in New York. The meetings have produced a list of priority activities and a timetable for implementation. The technical, scientific and logistical difficulties are such that many tasks will require 6-10 years to complete.

Antarctic Ice Margin Evolution (ANTIME) - Ross Powell reported on two workshops; one in Sweden in September 2000 and another in Hamilton, New York State in April 2002. There was some discussion about communication problems since the closure of the GLOCHANT office in Hobart. Ross Powell suggested that ANTIME activities be incorporated in the Antarctic Climate Evolution (ACE) proposal (see below).

IX ISAES, International Symposium on Antarctic Earth Sciences, Potsdam, 2003 - Hubert Miller presented the Second Circular and a request for \$8000 US to SCAR to support travel expenses of participants from developing countries. This was formally approved by the Working Group.

Proposal for X ISAES in the USA 2007 - Robin Bell proposed that the X ISAES be held in the USA, possibly in Lamont-Doherty, New York. The meeting accepted this proposal.

International Geological Congress Firenze, 2004 - Carlo Alberto Ricci presented the First Circular for the next IGC. He announced that there would be Antarctic sessions in the meeting. He also announced a post-conference workshop on Frontiers and Opportunities in Antarctic Geosciences in Siena organised by Scott Borg and himself.

Formation of European Geoscience Union - Roland Schlich explained the merger of European geoscience organisations into the European Geoscience Union to be completed in the near future.

Permafrost - Wayne Pollard presented correspondence from the International Permafrost Association (IPA) on developing permafrost work in Antarctica. The meeting agreed to form an Action Group to prepare a paper to identify research needs in Antarctic permafrost and to communicate with the IPA.

Antarctic Stratigraphy Program (ANTOSTRAT) - Peter Barrett reported on the workshop in Erice in September 2001 in which ~100 papers and posters were presented. The workshop report was published in EOS in January 2002 and ~15 papers will be published as a special issue of Palaeogeography, Palaeoecology and Palaeoclimatology.

Attendees at the workshop also agreed to develop a new project proposal on Antarctic Climate Evolution to SCAR (see next item).

New Proposal

Antarctic Climate Evolution (ACE) - Ross Powell presented the proposal for ACE, a new, international research initiative to study the climate and glacial history of Antarctica through palaeoclimate and ice-sheet modelling investigations. He presented a proposal document that was developed at meetings in Erice in 2001 and Massachusetts in May 2002. The proposal was discussed and it was concluded that it was valuable and important. It was suggested that the planning process should refine the objectives further.

Continuation of discussion of new SCAR structure

Subgroups

The meeting then returned to discuss what issues require the establishment of Action groups or some other body within SCAR. The list was as follows:

- Antarctic Neotectonics (ANTEC).
- Climate and environmental change (ACE, ANTIME)
- Observatory Geophysics
- Subglacial Lakes (SALE)
- Subice geology
- Antarctic basement geology (AGEANT)
- Permafrost
- Geological and geophysical data exchange and management
- Environmental impacts of marine acoustic technology

It was decided not to include surficial processes and Antarctic continental margin evolution in the list yet because it is still too early to decide whether SCAR involvement is needed in these areas. WG members were assigned the task of developing brief terms of reference for each group.

Leadership and structure of the new Standing Group on Geosciences.

A discussion was held on the proposed structure, including the possibility of not merging. A consultation process involving all those present produced a majority view favouring the merger but also significant concern that geology and geophysics be fairly represented in the new leadership structure.

National Reports

Because national reports had been tabled and distributed via e-mail it was decided, because of time pressure, to take them as read.

Ice Divide of East Antarctica (IDEA) project

Heinz Miller presented a proposal for the Ice Divide of East Antarctica (IDEA) project involving a traverse along the ice divide of East Antarctica to mark the 50th anniversary of IGY.

Philip O'Brien
Rudolph Trouw