

Executive Summary

The IASC Council and Regional Board meetings were held in Abisko, northern Sweden, 27-29 April, 1993. All 14 member countries were represented. Switzerland was invited as an observer.

1. **Reports from other arctic science organizations included**
 - Arctic Ocean Sciences Board (AOSB)
 - MAB-Northern Science Network
 - International Union for Circumpolar Health (IUCH), and
 - International Arctic Social Sciences Association (IASSA)
2. **IASC Mission and Strategy documents were finalized, consisting of two documents:**
 - A short and focused *Mission and Strategy* paper, and
 - *The Role of IASC in International Science*, including some basic information about IASC.

The very brief message from the mission and strategy paper is that IASC will focus on interdisciplinary science at a circumarctic or international level.

3. IASC will also provide a forum in which other arctic science organizations will be invited to join in interdisciplinary science (for example Global Change).

There is already an established relation with some other arctic organizations. Discussions are ongoing with ICSU and SCAR. IASC will apply for associate status with ICSU and will seek co-operation at working group level with SCAR, in addition to exchanging observers with SCAR at Council meetings.

4. **Global Change** was one of IASC's first initiatives and IASC has a co-ordinating responsibility for the Arctic region (START). A workshop was held last year and a *Scientific Plan for a Regional Research Programme in the Arctic on Global Change* is drafted, ready for a broad hearing, and will be published later this year.

The IASC Council accepted an offer from Finland to host an *Arctic Global Change Programme Office* at the Arctic Centre in Rovaniemi. This office is expected to be established within a few months. The previous IASC Working Group on Global Change will be replaced by a more co-ordinative structure with representatives from major Arctic Global Change activities as well as IASC.

5. How **Human and Social Sciences** could be integrated into IASC's interdisciplinary programs is a question that has been discussed for some time. IASC decided to establish an advisory group with representatives from IASSA and indigenous peoples of the Arctic in addition to a few from IASC.

6. **The Working Group for Geophysical Compilation and Mapping** is an extension and broadening of co-operation initiated earlier. A map showing magnetic anomalies of northern Russia was shown at the meeting as a product of the group's work. Sub-groups include: bathymetry, magnetics and seismics.
7. **The Ad-hoc Working Group for Marine Geology** had finalized their proposal in the form of an implementation plan which was accepted by Council. An ordinary working group will now be appointed. There will be a liaison between the geophysical and marine geology group.
8. **Arctic Glaciers:** An ad-hoc group reported good progress made by correspondence. Their final proposal is expected after a workshop meeting to be held in Cambridge, UK, in September.
9. **Arctic ozone depletion - causes and effects:** A proposal received positive response. The Scientific Advisory Committee of SCOPE/IUPAB will be asked for initial advice on the need for more knowledge of the effects of increased UV-B radiation on Arctic biota, possibly followed by a workshop.
10. **ISIRA - the International Science Initiative in the Russian Arctic:** Encouragement had been received from many quarters to the suggestion that IASC take a major initiative to the benefit of Arctic Russian science. An implementation proposal and a summary of a special group session suggested a need for more information on present bilateral programs, proposals on research needed (Russian scientists are drafting proposals), a strategy for linking bilateral programs together and science contents for new initiatives - and funding. A number of workshops were envisaged with a possible focus on some already established international science programs. A working group will be established to carry this initiative forward.
11. **Other issues** were discussed:
 - Arctic Scientific Data Bases: will not be established as a separate activity.
 - AGIS - Arctic Geographic Information System: awaiting specific proposals.
 - Workshop on Arctic Ocean Studies: partners will implement a tripartite initiative.
 - Guide to Arctic research stations: minor co-operative initiative will be established.
 - Radioactive waste: awaiting key research problems identified by planned conferences.
 - Arctic Co-operation in Space Geodesy and Geodynamics: initial information received, this contact will be kept open, awaiting specific proposal.
 - Impacts of Climate Change in the Arctic: referred to the Global Change working group.
12. **Regional Board:** An oral report was given by the Chairman. This body will monitor the specific scientific interests of the region, and provide a link to Arctic governmental agencies.
13. **Appointment** of President and Executive Committee was postponed until a new US Council member is appointed. A procedure was agreed upon for forming a new Executive Committee before 1 September.

14. The **Secretariat** will move to new offices in Oslo by 1 June. They operate on the basis of a workplan and are responsible to the Executive Committee. A request has been sent to the Norwegian Government to strengthen the Secretariat with one additional employee. An IASC Handbook will be published later this year. A logo for IASC was agreed upon.
15. **Economy:** Rules for the IASC General Fund were agreed upon. A revised budget for 1993 was accepted and a proposed budget for 1994 was presented. A *Standing Finance Committee* was appointed.
16. Holding an **Arctic Science Conference** in 1977 was discussed. Possible working title: *Priorities in Arctic Science*.
17. Reports were given about **Arctic intergovernmental co-operation**. IASC has been asked to perform an audit of AMAP (the Arctic Monitoring and Assessment Programme). This will be done by independent reviewers identified by the IASC Council, and the reviewers will report directly to AMAP.
18. **Next Council and Regional Board meetings** will be held in Greenland during the first week of May, 1994.

1. OPENING AND REPORTING SESSION

1.1 Welcome and introductions

Participants were welcomed to the third IASC Council Meeting by the IASC President, Dr. Fred Roots. New members of Council and the Regional Board were especially welcomed and introduced, as well as other observers to the Council meeting.

1.2 Adoption of the agenda

The agenda as such was adopted. However, a few additional items were included under 3.12, *New initiatives* and under 7.2.2, *Arctic Monitoring and Assessment Programme*, under which discussion of a recent request for an "audit" of AMAP was announced.

1.3 Organizing of the meeting

As the agenda list was rather comprehensive, it was agreed to divide the time available between plenary and group sessions.

Group sessions were used for more in-depth discussions. The various groups summarized their deliberations to Council for a final brief discussion and approval. The following items were initially agreed to be covered by this procedure:

- 2.1 Mission and Strategy documents, 3.2 Guidelines for new initiatives.
- 2.3 Relation to SCAR
- 3.7 ISIRA - the Russian initiative
- 3.9 AGIS
- 6.1 Rules for the IASC general fund, 6.2 Draft budget.

The Regional Board held their own meetings, but Regional Board members were invited to join Council plenary meetings and the group sessions whenever they wished.

1.4 Report from the 1992 Council meeting

Council formally approved the 1992 Council meeting report.

Comments received to the draft reports from previous years revealed different opinions as to the decisions made. This led to some correspondence that delayed the report. The Secretary suggested that at this meeting decisions be stated at the end of each item.

1.5 President's report

The President gave an introduction to the meeting, noting that science initiatives taken by IASC had made good progress during the past year.

The role of IASC had been both to take multidisciplinary initiatives such as that for Global Change research, and to be supportive to sciences in need of a circumpolar organization.

The President noted that IASC had broadened its **international relations**, and had been accepted as a useful organization by other science organizations, and by governmental organizations as well as non-governmental organizations.

IASC had also provided a **focus** for single science initiatives and good progress was reported from ad hoc groups such as *Arctic glaciers* and *Marine geology*.

The President ended his introduction by pointing to a series of **challenges** that IASC had to face covering topics such as: relation to established science programmes, funding, proper contact with the Arctic science community, relation to and involvement of Arctic indigenous peoples, and the relation to industrial science.

IASC is the closest heir and descendent of the International Polar Commission established in 1878(?), and this should inspire us to carry their ambitions forward.

1.6 Reports from other Arctic science organizations

1.6.1 Arctic Ocean Sciences Board (AOSB)

Dr. Eileen Buttle, past Chairman of AOSB, reported briefly from their annual meeting. (A more comprehensive report was given at the previous IASC Council meeting).

The meeting of AOSB this year had mainly consisted of a workshop on their polynya programme. Three polynyas are being studied and compared.

A résumé was given of the Greenland Sea Project, and it was reported that a possible conference is being considered for 1994.

Dr. Pentti Mälkki, the present Chairman of AOSB, reported on a need for a focus on paleoclimate, especially on the continental shelves. It was noted that this need also had been discussed by the IASC ad hoc working group on marine geology, see report from that meeting under item 3.4, and in **Appendix II**.

1.6.2 MAB - Northern Science Network

Dr. Fred Roots, who is also the Chairman of the International Advisory Group of the MAB - Northern Science Network, reported briefly on the major ongoing projects:

- Long-term studies of birch forest ecosystems
- ITEX - International Tundra Experiment, and
- Traditional Ecological Knowledge (coordinated by managers of Biosphere Reserves).

An updated report may be found in the last MAB/NSN Newsletter.

1.6.3 International Union of Circumpolar Health (IUCH)

IUCH is also a standing advisory body to IASC on circumpolar health and medicine.

Dr. Jens Peder Hart Hansen, the President of IUCH, mentioned that IUCH is an umbrella organization for several regional organisations. Their secretariat is located in Alaska, and a journal (*Arctic Medical Research*) has been published for a number of years.

IUCH will organize their 9th international congress on circumpolar health in Reykjavik, Iceland this year.

IUCH has close cooperation with indigenous people and other northern residents.

1.6.4 International Arctic Social Sciences Association (IASSA)

Information on IASSA is reported under item 3.2, and as an agenda paper under that item.

1.6.5 International Council for Snow and Ice (ICSI)

The relations with ICSI will be directly with the IASC ad hoc working group on Arctic glaciers.

2. IASC MISSION AND STRATEGY

2.1 Mission and Strategy documents

2.1.1 Mission and Scope

This document was discussed at the 1992 Council meeting, where it was adopted in principle but a few changes were suggested. At the 1992 Executive Committee meeting a revised text was commented and a few changes made. At this Council meeting it was agreed that it should be reviewed by the Strategy group.

As this document is intended to present IASC externally, the group suggested to change the title to *The Role of IASC in International Science*, and also made some small but significant changes in the text itself. See Appendix III for the full text of this document.

Council agreed to the suggested changes, which also include a procedure for new initiatives and establishing of working groups.

2.1.2 IASC Mission and Strategy

At the 1992 Council meeting there was an initial discussion on elements of an IASC strategy. It was agreed that a strategy document should be presented to the next Council meeting.

The Executive Committee had suggested a short Mission and Strategy document to Council. This document was reviewed by the Strategy group during this Council meeting.

Council agreed to the text suggested by the Strategy group after some minor changes had been made, and decided that this document would constitute the IASC strategy document for the years to come. For the complete text see Appendix IV.

2.2 Relation to other arctic science organizations

One of the intentions behind IASC was to serve as an umbrella for already established arctic science organisations and groupings, thereby creating a cooperative scientific network for arctic research.

Some guidelines for such co-operation had earlier been discussed both by Council and the Executive Committee. These guidelines had been formulated into a model letter for Council to comment.

Council agreed that the guidelines used in the model letter were acceptable. Council noted the letter to the International Permafrost Association (IPA), and their preliminary answer that they would consider the relation to IASC at their meeting in July this year.

Council decided that, except for SCAR, IASC should take a responsive mode as to seeking relationship with other organizations.

2.3 Relation to ICSU and SCAR

At the 1992 Council meeting several members expressed interest in a possible relationship between IASC and ICSU. Council agreed then that members should explore with their respective national scientific organizations the conditions, concerns and obstacles involved in establishing an ICSU affiliation.

As all comments then received were positive, ICSU was contacted informally. The alternatives for IASC to establish a relationship with ICSU were as:

- a standing scientific committee, or as
- an associate.

The Executive Committee decided to proceed with exploring the alternative of becoming a standing scientific committee. Informal communication indicated, however, that ICSU would ask the two polar research organizations (IASC and SCAR) to decide among themselves the appropriate ICSU structure for polar research.

Contact with SCAR had been initiated by a letter to the SCAR President, and the SCAR Executive Committee had discussed this issue at their meeting 13-17 April. Dr. Claude Lorius, a member of the SCAR Executive Committee as well as an IASC Council member, reported that SCAR would be interested in closer co-operation. Some ideas for practical co-operation were reported.

As a merger with SCAR was not likely in the near future, the other alternative for IASC seeking a relationship with ICSU would be becoming an *associate*.

Council agreed to apply for associate status with ICSU, noting the general ICSU rule that an associate organization should have been in existence for six years.

The IASC - SCAR relationship

A group had been appointed to develop some ideas on this relationship.

As merging with SCAR does not seem practical in the near future, the alternative suggested was developing closer scientific co-operation of mutual interest. Initially this could be achieved by:

- direct contact and exchange of information between the secretariats,
- reciprocal invitation to attend SCAR plenary and IASC Council meetings as observers,
- an invitation to SCAR to join IASC in a bipolar session at the occasion of the Arctic Science Conference. This would allow us to explore the range of disciplinary - interdisciplinary research themes of common interest.
- joint planning at the working group level of specific research programmes of mutual interest. Global Change regional research programmes may offer such an opportunity, as there are already promising complementary aspects which can be identified. Such a step could be initiated through direct contact between the GLOCHANT (SCAR) group of specialists and IASC Global Change structures.

The group had also developed some specific examples of bipolar scientific co-operation between IASC and SCAR.

Council agreed to these proposals and decided that IASC will write to the SCAR President, with a copy to ICSU, about reciprocal invitations to attend each others' meetings. Observers can be those who are dual representatives to both organizations.

It was also noted that it would be desirable to develop a relation between managers in both polar regions in the future.

3. SCIENTIFIC INITIATIVES

3.1 Global change research in the Arctic

Dr. Gunter Weller, Chairman of the IASC Working Group on Global Change studies, had been invited to the meeting to present the *Scientific Plan for a Regional Research Programme in the Arctic on Global Change* and for discussion on steps for implementation.

3.1.1 The Workshop report

The report from the Reykjavik workshop had been reviewed by the participants, and a final draft had been circulated to all working group members and participants at the Reykjavik workshop. Further, IASC Council and Regional Board members and other participants at the meetings in Abisko had received copies.

Council congratulated Dr. Weller on the solid work done, and suggested some improvements (a human health contribution, value of arctic science to other international programmes). The draft report with a cover letter will be circulated widely for external comments. A final version will be edited and published within the end of the year.

Action: Hart Hansen, Weller

3.1.2 Implementation

A. Arctic Global Change Programme Office

At the 1992 Council meeting members were asked to explore opportunities for supporting Arctic Global Change research including national funding of a secretariat.

Finland had subsequently offered to host, organize and provide the necessary funding for an IASC Global Change Secretariat to be located in Rovaniemi. The offer consisted of: a full-time researcher, an assistant/secretary and the director of the Arctic Centre devoting an appreciable amount of his time as the head of the secretariat. An operating budget had been agreed on which also covered travel funds for the staff of the secretariat.

Council accepted with thanks the generous offer made by Finland to host and fund this secretariat, which will be called the "Arctic Global Change Programme Office". Further details, such as the duration of the Finnish offer and finalizing the terms of reference for the office will be worked out by Weller, Rogne and Lange. The terms of reference will be reviewed by the IASC Executive Committee.

Action: Weller, Rogne, Lange

B. New Co-ordinating Structure

Dr. Weller suggested a number of other steps for implementation including a scientific co-ordination group or scientific council with appropriate representation of major disciplines and arctic projects.

Council agreed that there was a need for reorganizing, and tasked a group of Council meeting participants to draft terms of reference for a new working group. The new working group should consider steps for implementation and suggest priorities to the Executive Committee/Council who then would decide on actions to be taken.

Council agreed to the Terms of Reference for the new IASC Working Group on Global Change, enclosed as Appendix V.

Council decided that Council members should be asked to nominate members for this new group. The Working Group will initially be appointed for a period of four years. Dr. Bert Bolin was appointed as Council liaison with the group.

Action: Rogne, Council members

3.2 Human and Social Sciences

At the last Council meeting an ad-hoc group consisting of Drs. Hacquebord, Maxwell and Stenbaek had been asked to develop a proposal on how IASC could be involved in further development as to human and social sciences.

Their report had been discussed by the Executive Committee, who agreed that an advisory group on arctic human and social sciences should be established. The Executive Committee also agreed that this group should be given both tasks mentioned in the recommendations, as well as the original goal: a prioritized list of circumarctic science proposals in human and social sciences. Council members had been asked to nominate members for such an advisory group, and two nominations had been received (from Denmark and Norway).

IASC had also received a positive response from IASSA expressing an interest in becoming affiliated with IASC, and proposing possible ways of co-operation.

Council confirmed the decision made by the Executive Committee to establish an advisory group within IASC for the human and social sciences. In addition to being an advisory group on human and social sciences, the group should consider multidisciplinary projects integrating human and social sciences with biological and physical sciences. The group is expected to suggest feasible circumarctic multidisciplinary science projects to IASC.

Council appointed Dr. Hacquebord as leader of the advisory group and as liaison with Council, and agreed to invite IASSA to appoint three representatives. Representatives of the three major Arctic indigenous organizations and two members nominated by the IASC member organizations will also be included in the group.

Action: Rogne, Hacquebord

3.3 Working Group for Geophysical Compilation and Mapping

An implementation plan had been suggested to the Executive Committee by Drs. Ron Macnab and Jacob Verhoef, see **Appendix VI**. The Executive Committee had agreed that members of the group should be appointed for a limited period, as applies for all IASC working groups. A term of four years was suggested.

Academician Igor S. Gramberg reported on the activities of this working group and showed a map of magnetic anomalies covering all Arctic Russia, which was recently produced by the group.

Council also received a *Proposed composition of the first Executive Committee of the Working Group for Geophysical Compilation and Mapping* as a paper tabled at the meeting, see **Appendix VII**.

Council approved the implementation plan in principle and appointed Academician Igor S. Gramberg as liaison for this group with Council.

Council members were asked to nominate members of the working group, bearing in mind the principal investigators listed in the implementation plan, page 5.

Council members were also invited to propose any candidate for the missing representative of the Executive Committee for the working group.

Nominations are to be sent to the Executive Secretary of IASC.

Council members asked the group to provide all members of Council with a copy of the map.

Action: Rogne, Council members

3.4 Ad-hoc Working Group for Marine Geology

At the last Council meeting it was decided that an ad-hoc group chaired by Dr. Leonard Johnson should propose a science program and terms of reference, and report back to the Executive Committee.

The Executive Committee had received a progress report, and the ad-hoc group met in Copenhagen 19-21 April to finalize their proposals.

Dr. Dieter Fütterer reported to Council from the Copenhagen meeting and an implementation plan for a regular working group was tabled, see **Appendix II**.

Council agreed that there were sufficient grounds to establish an ordinary working group and noted the need for co-ordination. The group should be appointed for a three-year period. Dr. Dieter Fütterer was asked to serve as liaison to Council for this working group.

Council members were asked to consider any changes needed in the group's membership.

Action: Rogne, Council members

3.5 Arctic Glaciers

Council had agreed to establish an ad-hoc group at the last Council meeting to develop a scientific programme and terms of reference. The Executive Committee had been informed about the progress of this group.

The ad-hoc group had conducted their discussions by mail to date, and the progress had been delayed due to one or two key nominations.

A status report by the acting chairman, Dr. Jon Ove Hagen, concluded that all expected nominations were now received, and that progress had been made as stated in the report, see **Appendix VIII**.

There was a need for the ad-hoc group to meet, and a one-day workshop has been planned for 11 September in Cambridge, immediately after the FISAG-meeting and the IGS-workshop on Glacier Hydrology.

Council appreciated the progress report. It was noted that the ad-hoc group will develop a science plan and terms of reference at a meeting in Cambridge later this year. They are further expected to suggest a chairman and a secretary for a regular working group. The IASC Executive Committee will act on the report at its meeting in late autumn.

Council requested that all members of the group receive the Global Change report. Dr. Claude Lorius was appointed liaison with the Council for this group.

Action: Secretariat

3.6 Arctic ozone depletion - causes and effects

A proposal suggesting that IASC should promote a multidisciplinary research project within this field was discussed at the last Council meeting. Council had agreed that this proposal fit well into IASC strategy, and tasked Dr. Eileen Buttle to chair a group to suggest appropriate steps to be taken.

Council members had received Dr. Buttle's report together with proceedings from a workshop organized by SCOPE/IUPAB¹ on *Effects of Increased Ultraviolet Radiation on Biological Systems*. Dr. Buttle's report is included as **Appendix IX**.

Dr. Buttle introduced her report and pointed out her proposals under the way forward at the end of the document.

In response to Dr. Buttle's item 9, Council agreed that we need a strong scientific case before funding can be achieved.

As to item 8, Council decided that a letter should be sent to the Scientific Advisory Committee of SCOPE/IUPAB, seeking advice on what initiatives would be needed for increasing knowledge of the effects of increased UV-B radiation on arctic biota.

If a workshop should be required, the Executive Committee is asked to take necessary steps to plan and implement it.

Dr. Buttle agreed to serve as an advisor to IASC in these developments, and also to serve as a liaison to Council.

Action: Buttle, Rogne, Roots

3.7 ISIRA - The International Scientific Initiative in the Russian Arctic

After some alarming reports on the situation for Russian Arctic science, the Executive Secretary had drafted a working paper last year entitled *The Great Siberian - From the Barents to the Bering Sea*, see **Appendix X**. This working paper had been circulated to members of the Executive Committee and received favorable comments and support. It had thereafter been sent to Council and Regional Board members for comments, and to some key persons within Arctic science and funding.

The IASC Executive Committee had agreed that this was a good and important idea that should lead to an IASC initiative. The Executive Secretary was given a mandate to take necessary steps to achieve progress. This was done through a number of international contacts and by visits to Russia and other countries.

At this Council meeting, possible **steps for implementation** were discussed. Dr. Gramberg reported that on the Russian side all Arctic science communities had been contacted, and a

¹ SCOPE: Scientific Committee on Problems of the Environment.
IUPAB: International Union of Pure & Applied Biophysics

great number of proposals had been received. These proposals would be reviewed and prioritized.

During the discussion, representatives briefly informed about ongoing or planned bilateral programmes, in what way ISIRA could be helpful to them, and possible ways forward. The discussion is summarized in **Appendix XI**, together with the outcome of a small group which met during the Council meeting.

Council agreed that ISIRA was an important initiative that IASC should give priority. A special group should be identified as soon as possible to carry this initiative forward and report to the Executive Committee. The group was given the following tasks:

- 1. Assemble information on national, bilateral and international agency contacts. Provide information on Russian scientific resources and facilities.***
- 2. Identify international science programmes that can provide, benefit from, or need international support, bearing in mind the Council advice to focus on a few major programmes.***
- 3. Assist Russian scientific community in identifying and formulating scientific arctic projects that qualify for international or bilateral support, including resources needed.***
- 4. Develop ISIRA structure and identify committees needed.***

Council members should be asked to nominate a representative to this working group. Dr. Fred Roots was asked to chair the group and act as liaison with Council.

Action: Rogne, Council members

3.8 Catalogue of Arctic Scientific Data Bases

This project idea has been on the IASC agenda for a while. Council members were given a brief summary on its origin and later lack of enthusiasm.

A proposal to form a joint data group with AMAP on Arctic environmental data had not resulted in any nominations from IASC members.

Council decided to organize any scientific data bases in connection with its own programmes and not as a major separate activity.

Council agreed that the Executive Secretary should provide a link to the planned Arctic Environmental Data Base.

Action: Rogne

3.9 AGIS - An Arctic Geographic Information System

An agenda paper proposing an AGIS covering all Arctic land areas to a proposed scale of 1:200,000 and to extend it to continental shelf areas to the same scale was discussed. Later the deep oceans of the Arctic could also be included in an agreed scale.

Another paper was also included, giving a preliminary report on the availability of digitized topographic information for the Arctic.

The proposal suggested, as a first step, bringing representatives of national mapping agencies working in the Arctic together to clarify how and on what conditions their basic data could be made available to the science community, and how these data holdings could be harmonized.

Discussions revealed a strong concern that an initiative in this field was expected to require major funding, and such an undertaking would compete for funding with science initiatives. IASC should be willing to act as a broker for such activities, but await specific proposals for a specific region or from science groups.

3.10 Workshop on pollution in the Arctic

At the last Executive Committee meeting a proposal was tabled suggesting a multimedia expert workshop to evaluate the scientific knowns and unknowns about the sources, fates and effects of pollution in the Arctic.

Shortly before Council meeting it became known that another organization had planned a similar conference, hence further discussion was referred to 7.1, *Arctic Science Conference*.

3.11 Workshop on Arctic Ocean Studies

The initiator of this workshop was Professor Gotthilf Hempel. After getting the support of the IASC Executive Committee in 1991, the idea was discussed by The European Committee on Ocean and Polar Sciences (ECOPS), who supported it strongly.

The Arctic Ocean Sciences Board (AOSB) also had a similar interest in the workshop.

ECOPS had organized a small workshop of about 10 participants on this topic earlier this year. A note suggesting a tripartite larger workshop on Arctic Ocean research was included in the agenda papers.

Council decided that IASC should join in this tripartite initiative. However, it was expected that one of the other partners would take the lead and that all IASC members will be invited.

Action: Rogne

3.12 New initiatives

An agenda paper pointing out the need for some **guidelines** or routines for deciding what initiatives should be given priority, was dealt with by the Strategy group at the Council meeting. Their proposal reads as follows:

A preliminary evaluation of the merits of proposals will be provided by the IASC Executive Committee prior to submission to the IASC Council. The criteria for such evaluation will be whether or not the proposal is for international and interdisciplinary arctic science and has the support of either an IASC member or an IASC Working Group. The Council's and Regional Board's endorsement of the proposal will signal its relevance and priority to the arctic region or global science.

(Incorporated in *The Role of IASC in International Science*, item number 5, paragraph 2. These guidelines will also be included in the IASC Handbook)

The other part of the agenda paper was an appeal to national committees to consider proposing those national prioritized programmes that would benefit from international co-operation under IASC, or in other ways activate their arctic research communities to generate good science proposals.

3.12.1 Guide to Arctic research stations

A minor initiative was suggested to collect some standard information in a common format on all Arctic research stations and sites.

Some efforts had already been made, covering one nation (Canada), or for a single science purpose.

The main work could be organized by inviting those persons who have already collected parts of this information to join a small co-operative group.

Council noted that some guides already exist for some parts of the Arctic or fields of science. Council encouraged the Secretariat to initiate co-operation to produce a general guide to all Arctic research stations around a common format.

Action: Rogne

3.12.2 Radioactive Waste in the Arctic

An agenda paper summarized this issue. The paper stated that several conferences had been held or were being planned with international co-ordination under IAEA (International Atomic Energy Agency). All international concerns had focused on the marine environment only. AMAP (Arctic Monitoring and Assessment Programme) would also have radioactive pollution as one of their concerns.

Some ideas on the need for an IASC initiative had been mentioned on the Russian side, but no specific proposal had been received. The paper concluded that any IASC initiative as to the marine environment would not be necessary. A field that could deserve some priority is research concerned with eliminating risks to the terrestrial environment.

Council decided to await any key research problems arising out of the conferences being held this year, or proposals from any member organization.

3.12.3 Arctic Co-operation in Space Geodesy and Geodynamics

A late paper tabled at the meeting informed about contact made with the IASC Executive Secretary by a co-operative group being established, see **Appendix XII**.

Council noted this initial information and decided to keep the contact open. IASC will wait for a possible proposal from the group, including what they specifically would require from IASC.

Action: Rogne

3.12.4 Circumpolar Research on the Impacts of Climate Change in the Arctic

A proposal was tabled at the meeting, see **Appendix XIII**. This matter was introduced by Dr. Barrie Maxwell, from Canada. There had also been a workshop in Potsdam, Germany (report available from the IASC Secretariat). The proposal received an initially positive response.

Council decided that the proposal should be sent to the working group for Global Change.

Action: Rogne, Weller

4. REPORT FROM THE REGIONAL BOARD

The Regional Board held several sessions in Abisko, and their members were also invited to and joined the Council meeting.

An oral report was presented to Council in plenary by the Chairman of the Regional Board, Dr. Anders Karlqvist.

The Regional Board had revisited their terms of reference, and concluded that the original ideas for a Regional Board as laid down in the Founding Articles are still valid. They confirmed their policy of a low-key presence at the Council meeting and their supportive role to Council.

Dr. Gerald Lock, Canada was elected vice-chairman of the Regional Board for one year. Chairman and vice-chairman will act as an Executive Committee between meetings.

The Regional Board could serve as a bridge to governments from IASC as a non-governmental organization. Resources for Arctic research could also be a topic for the Regional Board, in consultation with non-Arctic members.

The Regional Board had no agenda of its own, but would respond to the Council agenda. For this purpose it was agreed to meet immediately before the next Council meeting to agree on comments to Council agenda items.

As to the 1993 Council agenda, they had discussed and provided input to the following items: the Russian initiative (3.7), Arctic Science Conference (7.1), AGIS (3.9), Arctic Council (7.2.1) and the AMAP audit (7.2.2).

Council encourages a closer relationship and contact with the Regional Board, and welcomes the decision by the Regional Board to meet prior to the Council meeting.

Council decided that items presently on the Council agenda about intergovernmental co-operation in the Arctic should be transferred to the Regional Board agenda in the future. The Regional Board should suggest to Council only those aspects which have a direct science implication.

5. ADMINISTRATIVE ISSUES

5.1 Appointments

At the first Council meeting in 1991, the present President and Executive Committee were elected for a two-year period.

At the 1992 Council meeting an appointment procedure was adopted (see paragraph 4 in the Rules and Procedures). At the 1992 Executive Committee meeting some issues were discussed for composing a new Executive Committee, including its role and delegating some areas of responsibility to the vice presidents. Further, Dr. Fred Roots was appointed as a nominating committee for proposal to the 1993 Council meeting.

Consultations took place before and especially at the Council meeting, but as the USA was not represented by an ordinary Council member at this meeting, *Council decided as follows:*

1. *The present Executive Committee shall function until a new Committee has been agreed upon.*
2. *A nomination committee consisting of: Magnusson (Chairman), Lorius and Omholt is to start consultations as soon as the US Council member has been appointed.*
Action: Magnusson, Lorius, Omholt
3. *The nomination committee was tasked to suggest a slate that should be approved by all Council members before 1 September.*
4. *All Council members are eligible. However, members should advise Magnusson on their availability.*

5.2 Other administrative issues

5.2.1 The Secretariat

At the 1992 Council meeting it was agreed that the Secretariat should be accountable to the Executive Committee. The Secretariat did not therefore report in detail to Council, but some general questions from the last Executive Committee meeting were reported in the agenda papers for information to Council and possible comments. These issues were:

a. The Secretariat as an information centre.

A question at the last Council meeting whether or not the Secretariat should become an arctic science information centre had been discussed by the Executive Committee. In the terms of reference for the Secretariat there were two items related to this question:

- *initiate and operate internal and external information service for IASC, i.e. to serve IASC's own information needs internally and externally, and*
- *act as an information referral centre on arctic science.*

The Executive Committee had noted that the broader information service referred to by the question in Council was partly covered by others, and agreed that the present terms of reference in this field were adequate and realistic.

b. Workplan for the Secretariat

Council was informed that the earlier annual workplan for the Secretariat had been replaced by semi-annual plans. The basis for each workplan would be follow-up work after Council and Executive Committee meetings respectively, adding some information on activities that the Secretariat may be engaged in during these periods.

c. Strengthening the Secretariat

The Secretariat consists of the Executive Secretary (full time) and an administrative secretary (80%). This small secretariat had reached its limits as to workload. The Executive Committee had agreed that the Secretariat was vulnerable with its present staff, and had asked Dr. Omholt and Mr. Rogne to produce a document that justified an increase of one person to the Norwegian government.

Council was informed that this had been done, but that it is too early to report any outcome.

An additional information item to Council was that the Secretariat would be moving to new offices during the last week of May, and the following will apply after 1 June:

IASC Secretariat
Middelthuns gate 29
Post Office Box 5072 Majorstua
0301 OSLO, NORWAY

Phone: int. + (47) 22 95 96 00
Fax: int. + (47) 22 95 96 01

Direct, Odd Rogne: int. +(47) 22 95 96 02
" Maryanne Rygg: int. +(47) 22 95 96 03

Council noted the information given, and expressed support to strengthening the Secretariat.

5.2.2 IASC Handbook

It had earlier been agreed that an IASC Handbook should be published. The Secretariat had suggested a table of contents, and pointed to the need to finalize some of the documents presently on this Council meeting agenda before a draft can be worked out.

In addition to the proposed table of contents, **national contact points**, that is national polar institutes, centres or secretariats, should be listed.

Council decided not to include a survey of national arctic science programmes, as was proposed by a Council member, but members were encouraged to inform the Executive Secretary of any new plans. Information would be included in IASC-Progress.

5.2.3 IASC Logo

Council was informed about the rather long history of finding and agreeing on an IASC logo. The Secretariat had, as the latest effort, engaged a senior design student who worked in collaboration with a group of students and a design professor. They had received all earlier proposals and ideas, and also some guidance.

The result was a proposed logo portraying winter darkness and midnight sun symbolized by a white top of a globe contrasted with a dark sky, see **Appendix XIV**.

Another proposal (globe and stars) had been received but not yet discussed by Council or the Executive Committee, and was included in the agenda papers. A third proposal showing a polar bear on top of the IASC acronym was tabled at the meeting.

Council decided by a qualified majority that a globe illustrating winter darkness and midnight sun should be used as the IASC logo.

5.2.4 Comment to Rules and Procedures

A comment received in 1992 to the revised Rules and Procedures concerning a possible conflict between paragraphs 1.4 and 3.1.2 had been clarified by the Executive Committee concluding that no change was needed.

6. IASC ECONOMY

Council appointed a small group (the "Finance Group") to review the proposed rules for IASC General Fund, suggest a revised budget for 1993 and a proposed budget for 1994, and to comment on any other aspects of funding and budgeting.

6.1 Rules for IASC General Fund

The drafted rules were reviewed by the Finance Group. They recommended that the rules be accepted by Council without changes.

Council decided that the Rules and Routines for the IASC General Fund were acceptable as proposed.

6.2 Draft budget for the IASC General Fund

A draft budget for the IASC General Fund for 1993 had been worked out at the last Executive Committee meeting. However, several needs were dependent on decisions to be made at this Council meeting.

An estimate of the incomes for 1993 and 1994 was compiled on the basis of information given by Council members. This estimate was given to Council members only - and in strict confidence.

The Finance Group suggested a revised budget for 1993 and a proposed budget for 1994 with totals of US\$95,500 and US\$101,500 respectively. Around US\$100,000 is expected to be the limit within which IASC must prioritize in the years to come.

Council advised that the income part of the budget should be deleted, and that the same headings should be used for 1993 and for 1994. The Executive Committee was asked to revise the proposed budget for 1994 at their autumn meeting. Chairmen of working groups should be asked to specify their needs for 1993 and 1994 and submit an application.

A need to set aside a small amount for initiation of an Arctic Science Conference was noted.

With these comments, Council approved the 1993 budget and referred the proposed budget for 1994 to the Executive Committee.

6.3 Other financial issues

6.3.1 Standing Finance Committee

The Finance Group proposed that IASC should have a Standing Finance Committee (SFC) to advise Council on budgets and finances. The SFC should be headed by a member of the Executive Committee and have one or two other members.

Council decided that a Standing Finance Committee (SFC) should be appointed, and its Chairman should be one of the members of the Executive Committee. The SFC should revise the draft budget worked out by the Executive Committee, and draft a proposed budget for the coming year. Both documents shall be presented to and accepted by the Council.

Council appointed Drs. Hacquebord and Lorius as members of the SFC. Dr. Hacquebord is to act as Chairman until the composition of the new Executive Committee is known.

7. OTHER BUSINESS

7.1 Arctic Science Conference

There was general strong support for holding an Arctic Science Conference.

As a well-planned conference needs a long lead time, it was suggested that a year and a broad working title should be identified. *Priorities in Arctic Science* was suggested as a working title. The years 1995 or 1997 were mentioned as suitable.

Council concluded that 1997 would be a suitable year, and tasked the new Executive Committee to initiate planning for a conference as an immediate high priority.

7.2 Reports from Arctic intergovernmental co-operation

7.2.1 Intergovernmental Arctic Council

Reference is made to last year's Council meeting for more background information about the Intergovernmental Arctic Council. Consultations have continued during this past year without reaching any final conclusion. No formal papers have been released during this period.

7.2.2 AMAP - the Arctic Monitoring and Assessment Programme

A report by Dr. Fred Roots dated 16 December 1992 was included in the agenda papers and provided a good summary of the AMAP activities.

IASC, in co-operation with ICES² (marine environment), had been asked by AMAP to perform an audit of the monitoring programme for the first period of AMAP (1992-1996). The audit is to be performed by independent experts and a report is to be presented before 15 August, 1993.

The Executive Committee had given a preliminary positive answer to the request, and had asked for an extended deadline for identifying appropriate experts and also to allow for a discussion of other aspects of the request at our Council meeting.

A separate group was appointed to consider the AMAP request and to suggest nominees for a group of experts.

Council discussed the role IASC as an organization could or should have in this audit. One positive role for IASC could be to identify the best available scientists and ask them as a group to submit an independent audit (review) directly to AMAP. As IASC does not have any relevant working group or other appropriate group of scientists to review their report, evaluations and opinions had to be that of the audit group.

² ICES: International Council for the Exploration of the Seas

Council concluded that the role of IASC Council in this audit has been to identify the best available scientists within the limited time given. Council requested a brief report to Council from the group about their experiences in performing this type of review, and any advice they could offer as to future reviews.

Council nominated the following scientists to take part in the audit:

GENERAL: (Leader)	Dr. Manfred Lange, Arctic Centre, University of Lapland, Rovaniemi, Finland
MARINE:	To be nominated by ICES
ATMOSPHERE:	Professor Øystein Hov, University of Bergen, Norway
TERRESTRIAL:	Dr. Gregory Hendry, University of British Columbia, Canada
FRESH WATER:	Dr. Patrick L. Brezonik, University of Minnesota, USA
HUMAN HEALTH:	Dr. T. W. Clarkson, University of Rochester, USA (on the advice of IUCH)³

Council members were asked to suggest alternates for the terrestrial and fresh water environments, and include brief biographic data when sending suggestions to the Executive Secretary.

Drs. Magnusson and Roots were asked to review these proposals and to appoint any alternates needed.

7.2.3 Co-operative Measures for Conservation of Flora and Fauna (CFF)

The *Inaugural Meeting on the Conservation of Arctic Flora and Fauna* was held in Ottawa, April 7 - 9, 1992.

Dr. Fred Roots had been invited to that meeting and reported to the IASC Executive Committee.

Dr. Roots also informed Council about CFF activities, and noted that this was the other "scientific leg" of the Arctic Environmental Strategy (AEPS).

CFF is mainly concerned with threats to habitats and reasons for such threats. Their intention was to identify and list all endangered species and areas in the Arctic, and they had started with sea birds.

A proposal on possible linkages between AMAP and CFF had been discussed.

According to Dr. Roots, CFF was most interested in advice and co-operation in their areas of responsibility.

IASC has been invited to the second CFF meeting to be held in Alaska 25-27 May, 1993. Dr. Fred Roots will participate.

³ IUCH: International Union for Circumpolar Health

7.2.4 Other reports about Arctic intergovernmental co-operation

a. **Euro-Barents Arctic Council**

This co-operation was initiated last year by the ministers of foreign affairs in Norway, Sweden, Finland and Russia. The intention was to encourage regional co-operation between the northernmost counties of these four countries (European part of Russia only). Only terrestrial area and questions were to be addressed.

b. **The Northern Forum**

This is co-operation between the leaders (governors) from the northern regions of the world. Most of its members are in the Arctic, (although not all arctic governors are members) but members from Korea, China and Japan are also included. Its mission is "to effect global change through regional action". Their next meeting will be in Tromsø, Norway, in September 1993 back-to-back with the 5th World Wilderness Congress.

c. **Expert meeting on the Northern Sea Route**

An expert meeting was held 13-14 October, 1992 at the invitation of the Ministers of Foreign Affairs in Finland and Norway. Proceedings of the meeting have just been published and are available from the Fridtjof Nansen Institute, Oslo, Norway.

d. **Workshop on Circumpolar Trade**

A workshop had been held on Arctic trade and industry, with mostly Canadian participants. A report will be published by the Canadian Polar Commission. Council members will be informed through *IASC Progress*.

7.3 Invitation to the Nordic Council's Arctic Conference

The Nordic Council is the co-operative organization for parliamentarians in all the Nordic countries. They have invited parliamentary delegations from all the Arctic countries, as well as the European Parliament, parliaments for indigenous peoples and a number of observers, including IASC.

The conference is to be held in Reykjavik, Iceland 16-17 August, 1993. The invitation and the program were circulated to meeting participants as a late paper.

Council appointed Dr. Anders Karlqvist, Chairman of the IASC Regional Board, to attend this conference and to inform about IASC on Tuesday, 17 August.

Action: Rogne, Karlqvist

8. NEXT MEETINGS OF COUNCIL, REGIONAL BOARD AND THE EXECUTIVE COMMITTEE

8.1 Council and Regional Board meetings

Time: The first week of May was identified as most suitable. Wednesday 4 May to Friday 6 May can serve as preliminary dates for the Council meeting.
(An Antarctic meeting was too close to our traditional last week of April)

Place: Dr. Jens Peder Hart Hansen, on behalf of the Commission for Scientific Research in Greenland, invited Council and Regional Board to hold their next meeting in Greenland, either in Søndre Strømfjord or Nuuk.

Council accepted with thanks the offer from the Commission for Scientific Research in Greenland to host the Council and Regional Board meetings in Greenland during the first week of May, 1994.

8.2 Executive Committee meeting

The meeting time and place will be decided as soon as the new Executive Committee is appointed.

9. CLOSING

The Royal Swedish Academy of Sciences and The Abisko Scientific Research Station were heartily thanked for serving as excellent hosts to the 1993 Council and Regional Board meetings.

10. INFORMATION SECTION

Participants received a number of documents for information purposes. A list of the contents is attached as **Appendix XV**. The documents themselves are not included in this report, but copies are available on request to the IASC Secretariat:

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