



PROGRESS

INTERNATIONAL ARCTIC SCIENCE COMMITTEE • MAY 2008

In March 2008, the IASC Secretariat published the first IASC yearbook, the IASC Bulletin 06/07. The main purpose of this annual publication is to distribute IASC information to the Arctic research community. The IASC Bulletin generally covers the period between two Arctic Science Summit Weeks (ASSW), ending with a report of the last ASSW. The yearbook has been widely distributed and is available for download at the IASC website <http://arcticportal.org/iasc/services/publications>.

The present newsletter provides an update of the latest developments since the release of the IASC Bulletin.

New Structure of IASC

At the ASSW 2007 in Hanover (USA), IASC Council generally agreed to follow the recommendation of the IASC Review and Strategy Group (IASC R & S Group) on adopting a new organizational structure to reflect the progressively more integrative nature of today's polar science.

Considering the recommendations of the IASC R & S Groups, the comments received from IASC Council Members and other subsequent discussions, the IASC Executive Committee developed a proposal for the new IASC structure and strategy to support science development. To inform the relevant Arctic (and Antarctic) organizations about the IASC restructuring and to involve them in the restructuring process, the heads of all organizations that are linked to the new IASC structure

SCAR/IASC IPY Conference

More than 1200 abstracts have been received and, to date, more than 1400 participants have registered for the SCAR/IASC IPY Conference. Please visit the conference website <http://www.scar-iasc-ipy2008.org> for more information.

were invited to a one day workshop in Stockholm (Sweden), 5 February 2008 (<http://arcticportal.org/iasc/news3/iasc-workshop-stockholm-5-february-2008>).

The proposed new structure, which was presented at the ASSW 2008, includes Scientific Standing Committees and Action Groups as the core working elements of the new IASC. Thus, the most important change is a much larger possibility for the member countries to participate in IASC activities, in particular in overall science planning as the Scientific Standing Committees will hopefully be populated with top scientists from all IASC member countries and other Arctic science organizations as ex-officio representatives.

In short, the proposed new IASC structure is based on three main pillars:

1. Council, Executive Committee and Secretariat;
2. Scientific Standing Committees;
3. Action Groups.

The main IASC instruments proposed for supporting science development are:

- Assessments/Science Planning Initiatives;
- Long-Term Programs;
- Workshops
- Networks etc.

Detailed information is available in the minutes of the Council Meeting held at the ASSW 2008 (<http://arcticportal.org/iasc/services/meeting-reports>).

In essence, Council has approved the proposal and mandated the Executive Committee to modify the structure considering the comments received by Council Members within the next six months. An Action Group consisting of Sara Bowden (lead author), Jörn Thiede, Barry Goodison, Hugues Lantuit and the IASC Executive Secretary was formed to assist the Executive Committee with developing draft Terms of Reference for the new IASC structure.

IASC Regional Board

When IASC was established in 1990, the IASC Regional Board (RB), comprised of representatives from governmental scientific organizations in the eight Arctic countries, was formed to ensure that the activities of IASC are consistent with the interests of the Arctic countries.

The RB members have been discussing the future role and responsibilities of the RB within the new proposed IASC structure. The Board has also examined its role in light of the changes that have occurred over the last 10 years such as the establishment of the Arctic Council and the increased linkages between IASC and other international Arctic organizations.

In the final analysis, members agreed with the recommendation of the IASC R & S Group to disband.

However, members noted that they had found the Board to be a

useful forum for discussing issues of particular interest to Arctic-8 science officials and that they might consider forming a new group for that purpose.

IASC's Relationship to Other Organizations

Following the recommendations of the IASC R & S Group, IASC has been working towards strengthening its relationship with several polar and global organizations over the past months.

Arctic Ocean Sciences Board

During the 27th meeting of the Arctic Ocean Sciences Board (AOSB), held at the ASSW 2008, the Board agreed on plans for AOSB to merge with IASC in order to strengthen both organizations. AOSB will become one of five IASC Scientific Standing Committees.

With the merger, IASC will gain the expertise of a strong organization with membership from 15 countries, active and ongoing programs, and a long history of contributions to Arctic science. AOSB, on the other hand, will become part of an organization with strong outreach to disciplines beyond the marine system as well as excellent links to the larger policy community in the Arctic. The merger will implement the suggestion of the IASC R & S group to recognize the increasingly integrative nature of science in the North.

<http://www.aosb.org>

International Arctic Social Sciences Association

A proposal for a Letter of Agreement (LoA) between IASC and the International Arctic Social Sciences Association (IASSA) was presented to the IASC Council at the ASSW 2008. In this LoA, IASSA and IASC agree to combine

their efforts in selected fields and activities so as to raise the level of impact of both organizations in terms of making scientific advances and of advising policy makers, as well as to avoid duplication.

The proposed LoA between IASC and IASSA was formally approved at the ASSW 2008 and signed by the IASC President.

<http://www.iassa.gl>

The Sixth International Congress of Arctic Social Sciences (ICASS VI), which is an IPY endorsed project, will take place in Nuuk (Greenland) 22-26 August 2008 (<http://www.icass.gl>).

Climate and Cryosphere

IASC has been in contact with the World Climate Research Program (WCRP) and the Scientific Committee on Antarctic Research (SCAR) on coordination of research on Arctic and global change.

WCRP and SCAR proposed to IASC to become a sponsor of their joint Climate and Cryosphere (CliC) project. The proposal for an updated version of the existing WCRP/SCAR MoU on the co-sponsorship of CliC, which includes IASC as a new CliC sponsor, was introduced to the IASC Council at the ASSW 2008.

IASC Council welcomed the proposed MoU and decided that it should be signed by the IASC President during the SCAR/IASC IPY Conference in St. Petersburg.

<http://clic.npolar.no>

Pacific Arctic Group

Organized under IASC, the Pacific Arctic Group (PAG) has the mission to serve as a Pacific Arctic regional partnership to plan, coordinate, and collaborate on science activities of mutual interest. PAG is a very successful initiative of IASC and has become a well established and self-contained group. At the ASSW 2008, it was decided that PAG will not be part of the formal new IASC structure, but rather an independent body.

PAG will, however, maintain the link to IASC through the participation in IASC's new Scientific Standing Committees and Action Groups.

<http://www.pagscience.org>

Arctic Science Summit Week

ASSW 2008

The ASSW 2008 was held in Syktyvkar (Russia) 26 March - 1 April 2008, and hosted by the Government of Komi Republic, the Russian Academy of Sciences (RAS), the Komi Science Centre of the Ural branch of the RAS, the Arctic Research Centre of the RAS and the Council of Rectors of Komi Republic.

<http://www.assw2008.org>

The theme for the ASSW 2008 Project Day was *Post-IPY Scientific Cooperation, Infrastructure and Assessments*. The Science Day symposium was arranged in conjunction with the Northern Social and Environmental Congress and the theme was *Northern Dimensions of Global Problems: First Results of the IPY*.

A report of the Northern Social and Environmental Congress will be published by the Russian hosts. A full report of the ASSW including the abstracts of the Project Day presentations and summaries of the business meetings held by the various organizations during the week will be published in the IASC Bulletin 07/08 which will be available before the ASSW 2009.

ASSW 2009

The ASSW 2009 will be held in Bergen (Norway), 23-28 March 2009 and will be the first ASSW that is organized according to the new structure with a three-day Open Science Conference in the center of the week. Consequently, a Scientific Steering Group (SSG) has been appointed by the Arctic organizations that are represented on the ASSW International Coord-

dination Group. IASSA and the Association of Polar Early Career Scientists (APECS) have been invited to join the Coordination Group and to nominate a representative for the SSG. The overall conference theme for the ASSW 2009 will be: *Arctic Connections: Results of 150 Years of Research*. More information is available at the ASSW 2009 website (<http://www.imr.no/assw2009>).

ASSW 2010

Denmark/Greenland has kindly offered to host the ASSW 2010 in Greenland. The ASSW 2010 will be the first one to be organized as an "Arctic Science Business Week" according to the new structure of the ASSW.

Sustaining Arctic Observing Networks

The Sustaining Arctic Observing Networks Initiating Group (SAON IG) has been formed in January 2007 to develop a set of recommendations on how to achieve long-term Arctic-wide observing activities that provide free, open, and timely access to high-quality data that will realize pan-Arctic and global value-added services and provide societal benefits. A process which primarily involves a series of three workshops.

The first SAON workshop, held in Stockholm (Sweden) on 12-14 November 2007, focused on the question: *Are current Arctic observing and data and information management activities sufficient to meet users' needs?* The second SAON Workshop, took place in Edmonton (Canada), 9-11 April 2008, and addressed the question: *How will Arctic observing and data and information management activities be coordinated and sustained over the long-term?* The third workshop, to be held in Helsinki (Finland) 15-17 October 2008, will be host-

ed by the Finnish Meteorological Institute. An important element of this workshop will be a synthesis of the advice and information gathered at the previous workshops into the final set of recommendations. In order to include observations and monitoring activities in Russia and in the Asian countries, and to gain additional perspective on how sustained Arctic observing networks should be implemented, one day workshops will be held on 7 July 2008 in St. Petersburg (Russia) and on 23 September 2008 in Incheon (Korea).

For more information, please visit the SAON website <http://www.arcticobserving.org>, which is constantly updated and includes all material presented at the workshops.

Climate Change and the Cryosphere: Snow, Water, Ice, and Permafrost in the Arctic

Climate Change and the Cryosphere: Snow, Water, Ice, and Permafrost in the Arctic (SWIPA) is an Arctic Council project in cooperation with IASC and CliC and utilizing IPY results. At its last meeting in Svolvær (Norway), 23-24 April 2008, the Arctic Council approved this project for implementation. Generally, SWIPA does not intend to initiate any new research, but will be based on recent or ongoing national and international projects, including IPY research.

The project focuses on key areas of cryospheric science where effects of climate change have potentially far-reaching implications for both the Arctic and the globe. SWIPA aims to integrate scientific information on the impacts of climate change on the ice, snow and permafrost characteristics of the Arctic, considering impacts within the Arctic and

beyond. SWIPA is conceived as an integrated project - integrating information on the physical changes to the system, but also considering impacts on humans. However, for practical purposes the project implementation plan is based on dividing the work into three main components focusing on:

- * Climate Change and Arctic Sea Ice (Component 1), lead country Norway;
 - * Climate Change and the Greenland Ice Sheet (Component 2), lead country Denmark; and
 - * Climate Change and the Arctic Terrestrial Cryosphere (Component 3),
- the latter being further divided into four modules dealing with:
- Changing snow cover and its impacts (Module 1), lead country Sweden;
 - Changing permafrost characteristics, distribution and extent and their impacts (Module 2), lead country Sweden;
 - Mountain glaciers and ice caps (Module 3), lead countries Russia, USA and Canada; and
 - Hydrology: Rivers and lakes (Module 4), lead countries Russia, USA and Canada.

The major deliverables will be (1) scientific reports of the components and modules based entirely on peer-reviewed publications, (2) an integrated synthesis and (3) a summary document synthesizing the technical reports in a format suitable for use by policy and decision-makers.

The main project implementation is scheduled to take place between 2008 and 2011. The first report from the Greenland project will be presented to the United Nations Climate Change Conference (COP XV) in December 2009. The main delivery is planned for the Arctic Council meeting in 2011.

Other New IASC Activities

Arctic Coastal Dynamics II

Arctic Coastal Dynamics (ACD) was an IASC Project that ended in 2007. The project group has developed a Science Plan for a second phase of the project. At the ASSW 2008, it was decided that ACD II will receive continued IASC endorsement as an IASC Network. For more information, please visit the ACD website <http://www.arcticportal.org/acd>.

White Paper: Responding to Change on Arctic Coasts - Circumpolar State and Capacity Assessment

IASC and the Land-Ocean Interactions in the Coastal Zone (LOICZ) project of the International Human Dimensions Program on Global Environmental Change (IHDP) / International Geosphere Biosphere Program (IGBP), along with the Arctic Monitoring and Assessment Program (AMAP) and the International Permafrost Association (IPA) sponsored two workshops looking into the impact of climate change on the Arctic coastal zone. Both workshops were held in Tromsø (Norway), the first one on 1-3 October 2007, the second one on 24-25 January 2008.

As an outcome of these workshops, IASC and LOICZ developed an outline of a White Paper: *Responding to Change on Arctic Coasts - Circumpolar State and Capacity Assessment*. The purpose of the White Paper is to provide the scientific community, the interested public including local peoples and decision-makers

with the state-of-the-art scientific knowledge of relevant change processes and prospects in the Arctic coastal zone. The White Paper is anticipated for early 2009. For more information, please visit the website <http://coast.gkss.de/events/arctic07>.

Arctic Paleoclimate and its Extremes

Arctic Paleoclimate and its Extremes (APEX) is an IASC endorsed network research program aiming to understand Arctic climatic changes beyond instrumental records. The Second International APEX Conference and Workshop was held at the Department of Geography of Durham University (UK), 1-4 April 2008. For more information, please visit the APEX website <http://www.apex.geo.su.se>.

Working Group on Arctic Glaciology

At its last annual meeting in Obergurgl (Austria), 30 January 2008, the Working Group on

Arctic Glaciology (WAG) elected Andreas Ahlstrøm (Geological Survey of Denmark and Greenland) and Martin Sharp (University of Alberta, Canada) as new co-chairs. At the ASSW 2008, the former IASC Working Group was formally approved as an IASC Network.

http://www.phys.uu.nl/~wwwimau/research/ice_climate/iasc_wag/

IASC Membership News

At the ASSW 2008, the IASC Council re-elected Byong-Kwon Park as Vice-President and elected David Hik as a new Vice-President. David Hik is filling the position of Louwrens Hacquebord who served as a Vice-President for the last eight years.



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