

**DRAFT (v1.1)**  
**First Meeting of the IPY 2007-2008 Open Consultative Forum**

**UNESCO, Paris, March 10-11, 2005**  
(Thursday – 09:15 – 18:00, Friday – 09:00 – 16:30)

**Participants** - see Appendix

**Agenda** – see Appendix

### **1.0 Introduction**

A total of 63 participants attended the first meeting of the Open Consultative Forum. The Forum has been created to provide an opportunity for the various IPY stakeholders to interact with the Joint Committee (JC) and contribute directly to the development of the IPY 2007-2008 programme.

### **2.0 Progress in IPY Planning**

Ian Allison, JC Co-Chair outlined the background of IPY planning. ICSU formed a Planning Group in 2003 and WMO became involved. The Planning Group met four times and established Discussion for IPY stakeholders which were held immediately before Planning Group meetings 3 and 4. National Committees were encouraged to form and a total of 32 IPY National Committees (NCs) and National Points of Contact were established by Summer 2004. Two Calls for IPY “ideas” were made and a total of 500 ideas were submitted by the community. The Planning Group members undertook a substantial programme of IPY promotion – involving major international meetings. These ideas and the inputs from the Discussion Fora contributed substantially to an Initial Draft Science Plan and subsequently the document “A Framework for IPY 2007-2008” which provided a first pass at defining a Science and Implementation Plan for IPY 2007-2008. The Framework document identified six major IPY Themes under which a series of core projects could be developed and outlined the basis for an IPY management structure. The Joint Committee comprises 14 full members and -five ex-officio members representing, ICSU, WMO, IASC, SCAR, IOC. The need for at least two subcommittees dealing with Data Management and Education, Outreach and Communication was also identified. The Framework document proposed self-organising Project Steering Committees to coordinate activities within core projects and the formation of a Consultative Forum representing the stakeholders. An International Programme Office to support the JC was also proposed and following an international competition, was established at British Antarctic Survey, Cambridge, UK. An IPY Director to head the office has also been sought internationally. The JC announced a Call for Expressions of Intent from the polar community (deadline was Jan 14, 2005) proposing activities during the IPY, particularly targeting proposals with significant logistic requirements. The response of around 900 EoI’s clearly indicated how the IPY has captured the imagination of the polar community.

### **3.0 EoI Assessment Process**

**3.1 Overview** - The assessment has been based on 869 Expressions of Intent assembled by the end of February, though additional EoI’s continue to arrive at the International Programme Office (current total = 882) and are being assessed by the JC. The complete set of EoI’s is available on the IPY website ([www.ipy.org](http://www.ipy.org)). A total of 36 countries contributed to the EoI proposals, including Egypt and Greece, countries without polar research traditions, and Malaysia which is only just beginning polar research. The involvement of non-polar nations is one of the objectives for IPY 2007-2008 originally outlined by the ICSU Executive Board. More effort will be expended in encouraging greater involvement of these nations in the next Call.

Over a third of the proposals had involvement of scientists from the USA, whilst Canada submitted 175 proposals and was probably involved in over 200 in all. The United Kingdom led 59 proposals but was involved in a total of 168. Substantial numbers of proposals

(between 40 - 120 each) were also received from Denmark, France, Germany, Norway and Russia. Though North America and Europe dominated the submissions, there were also important submissions from Asian, South American and Australasian countries. The African continent and the Middle East remain areas for IPY to target with submissions being received only from South Africa and Egypt and the involvement of Israeli researchers in a single proposal.

Arctic research proposals (463) dominated the submissions but Antarctic research proposers contributed a further 159 EoI's. A significant number of bipolar proposals (136) were also received whilst 88 additional submissions were concerned with activities in non-polar areas with relevance for our understanding of the polar environment or in promoting these areas.

A coarse clustering of proposals under 8 broad science disciplines revealed a good spread of EoI's across all disciplines and good numbers of proposals relating to the Human Dimension, Education/Outreach and Communication (EOC), Data Management and Legacy issues. It will be important that IPY works closely with existing programmes and uses their infrastructure where practical rather than developing competing infrastructures. It was therefore encouraging to see that existing initiatives (e.g. AOSB, CLIVAR, CliC, International Permafrost Association, SEARCH) were identified by significant numbers of proposals as targets for IPY contributions.

**3.2 EoI Analysis** - The original aim of the Call for Expressions of Intent was to draw out those proposals requiring very substantial logistic requirements. In the event many in the community clearly felt that with time schedules so tight they needed to submit a proposal for the Jan 14 deadline whether or not the proposal had significant logistic requirements. The submission of close to 900 proposals indicates the degree of enthusiasm for IPY in the community but has posed significant problems for the JC in handling this very large number of EoI's in a short time frame.

To facilitate assessment of the 869 EoI's, it was decided to divide them up on disciplinary lines as the initial assessment indicated a relatively even distribution across disciplines and there was the necessary expertise within the JC to address these disciplines. In all cases at least two, usually three JC members examined each EoI and classified them as either category 1 – meeting all the IPY criteria, category 2 – meeting most of the criteria but needing to scale up its plans by greater internationalisation, and category 3 – national only and not undertaking science that required an IPY. The Category 3 proposals have a major task ahead to scale up to an IPY project but it was recognised that a number of small projects could “synchronise” their activities, data management, etc., to form an IPY-scale project. A very small number of proposals were considered to not meet the IPY criteria and therefore not thought appropriate for the IPY 2007-2008 programme.

It was accepted that this form of assessment could only be a relatively coarse breakdown and that EoI's crossing science disciplines would not fit comfortably in these categories. A number of large topics (or missions) were identified (around 50) and, to provide continuity with the Framework document, these have been related back to the original six IPY themes (see Appendix). Lead projects for each topic (mission) were identified that could potentially form core projects within the IPY programme and a number of other related EoI's clustered within each of the topics.

It will be for the EoI's within each cluster to interact and develop fuller proposals for a June 30 deadline. It is envisaged that within each topic, Project Steering Committees will be formed to manage each cluster. Cross-cutting proposals were identified and the JC encourages each cluster to consider these cross-cutting opportunities in developing fuller proposals. Each EoI will receive a letter from the JC giving their assessment of the IPY potential of the proposal. It is hoped to complete this task by March 30.

The Joint Committee agreed at its meeting that it would establish June 30 as a closing date for submission of fuller proposals to the IPO. Information on how to prepare proposals will be provided in April, through communication with the NCs and on the IPY website. It is envisaged that the June proposals will be 6-7 pages including a one page abstract. It will be important that all projects directly address the IPY criteria if they are to obtain full recognition from the IPY. This will particularly apply to project management, data management and EOC development. The JC decided that the proposals will be screened initially by the IPO to establish the submissions are correct and then each member of the JC will be sent all the proposals to assess. The assessment is to be completed by the end of July and the results returned to the IPO. The JC will then hold a teleconference to confirm the decisions and the IPO will mail the results. It is accepted that further proposals will come in after the June 30 deadline and the JC has committed itself to establish a mechanism for assuring that these proposals are assessed. Proposers are encouraged to contact the IPO about their idea before submitting to check if it is new or already in the system.

It was gratifying to see how many people have been inspired by the idea of IPY and the JC will be working to include as many as possible. Many projects are relatively small and the JC has a facilitation role to help bring together these small proposals. The JC is not intending to be dictatorial about clusters – these are suggestions and it is for the community to actually get together. It was also emphasised that the disciplinary approach used to help break down EoI's into manageable groups is simply an administrative exercise and the topics identified have been linked back into the original six themes. It was also recognised that this first time around it was not always possible for EoI's to fully internalise their proposal and that this will be more likely by June 30.

The OCF participants made several points: (responses in bold)

- a) There needs to be feedback to the National Committees at the same time as the individual EoI's get their feedback. Canada would prefer that the letters go to the NC's for them to distribute. **It was agreed that information will be sent in parallel but it would not be practical to send all the letters to the NC's as many nations involved in each proposal.**
- b) The letters should be sent by email and not by normal mail. **This will be the case.**
- c) Concern that there were still late submissions of EoI's coming in. **These will be assessed and comments returned to the submitters.**
- d) Will there be a penalty for EoI's not meeting criteria? **No – all proposals will be encouraged to develop further.**
- e) The structure and function of the proposed Project Steering Committees needs to be clarified. What should be the competence of the PSC? **There are details in the Framework document but these will be expanded.**
- f) How have the EoI's been clustered? Are there real links or is this simply lumping? **There are good potential links between many of the EoI's but in other cases there are opportunities to synchronize activities without becoming intricately interlinked.**
- g) Concern that June 30 not be the only deadline for project submissions. Some proposals still to be submitted and these will have problems scaling up for the June deadline. Also many Arctic researchers away on fieldwork in June. Suggestion that there be a second submission date in November/December? **Proposals can be submitted after June 30 – the JC will establish a mechanism to deal with these. JC will also consider in mid-August if there should be a second full Call.**

#### **4.0 Data Management and Education, Outreach and Communication**

Though these items were on the agenda for Friday some debate occurred on Thursday. These activities are important components of IPY but have been rather slow to develop. It is planned to establish two Sub-Committees for these areas and to identify a Data and Information System (DIS). However it will take time to assemble these sub-committees. National Committees are requested to submit names for these Sub-Committees. In the

meantime, there needs to be progress on data policy – several organisations (e.g. CLIVAR) have published policy documents that will provide useful examples. Ad hoc task groups were formed to move forward the policy issues of data management and the EOC agenda. The JC has already identified names for the Data and EOC task groups and it is envisaged these will have email exchanges, reporting to the JC in June. It is also proposed to set up a Sub-Committee on Observing Systems and small JC subgroup was established to formulate TOR for the proposed Sub-Committee.

It was suggested that there could be regional workshops held to deal with IPY data issues? ICSU are establishing regional offices in Africa, Caribbean, Asia and the Middle East and these could help coordinate IPY activities.

## **5.0 Regional Coordination Offices**

The OCF were informed of a proposal from Russia to establish a Regional Office in St Petersburg supported by funding from Germany, Norway, Sweden and USA. A full proposal is yet to be presented but an outline and ToR's were provided for consideration. It was proposed that this office work as a sub-office under the IPO in Cambridge and could assist in projects accessing the Russian Arctic. The JC felt that the ToR's for the St Petersburg office would need to be amended to refer to "Russian Arctic" rather than "Arctic". However the Russian representatives indicated that (having international funding) this office would be an international office for the Arctic and provide circum-Arctic assistance.

Canada has a national office for its territory with the necessary connections to people of the Canadian North and relevant expertise so questioned the need for an international Arctic office. Other national committees (including Germany and Denmark) felt that regional offices would simply put another layer of bureaucracy into IPY. The meeting welcomed the idea of a mechanism to facilitate access to the Russian Arctic and some suggested that the St Petersburg office should be a national not international activity. Others suggested that the Arctic Council and/or FARO could and should play an important role in helping facilitate access to the Arctic regions and coordinating activities. The JC are of the opinion that any proposal for a Regional Office would need to go through a full international competition but will need to have further discussions regarding this proposal.

## **6.0 Presentations and Comments by OCF Participants**

### **National Committees**

**Canada** – Have established a National IPY Office, an Executive Director, a website and newsletter. Also have established the CANIPY Map server, making Arctic maps available online. The Canadian Steering Committee (broad based from science and communities) is working with a Federal Government Secretariat (coordinating federal science initiatives), a Canadian Secretariat (coordinating national proposals and developing liaison and communication) and the Canadian Polar Commission (communication and liaison). An information database for Canadian scientists is being developed including information on licensing and community support. The Canadian programme is based on ensuring inclusion, Capacity building, infrastructure improvement, climate change, natural resources and health. There have been meetings with Canadian indigenous groups and issues raised include:

- a) *The North must take a leadership role in the IPY process and in the scholarship.*
- b) *All IPY programs and projects must build capacity in northern communities, especially in Indigenous peoples communities.*

- c) *The IPY must have a strong education component from kindergarten to post secondary levels. Schools, colleges, and the University of the Arctic are critical to the development of northern capacity.*
- d) *Data and information, including data archives, must be made available to all communities.*
- e) *Improved monitoring systems for research and for applied purposes, linked to permanent state-of-the-art research infrastructure in the North, are an essential part of the IPY legacy.*

**Denmark** – The NC (which involves Greenland) have held 10 meetings as well as workshops and they believe they have the Danish Science mobilised. They have established a website maintained by the Secretariat based at the Danish Polar Centre. They are very positive about getting funding from the agencies (mentioned bidding for €35 million) and are preparing papers to sell IPY to these agencies. Outreach - Danish Scouts are involved in polar activities during IPY. The one request to the JC was guidance on what did they think were the cutting edge projects?

**France** – French IPY committee formed, chaired by Claude Lorius. At least 40 proposals have French involvement and 21 are led by French scientists. There are no social science proposals but otherwise good coverage of themes. There are not enough links between the National Committees and the Joint Committee. This issue needs to be addressed.

**Finland** - The NC will finalise an Action Plan for IPY in the near future, certainly by June. Discussions on funding are ongoing but remain promising. Eleven EoI's led by Finnish scientists and involvement in more. They plan a National Arctic Research Programme. They plan an interdisciplinary expedition to Svalbard (in conjunction with Sweden and Norway) led by the Arctic Centre. They are developing Education plans for IPY and expect to involve the University of the Arctic in this endeavour. The NC is also working with industry and private funding to support IPY activities.

**Germany** – A National IPY Workshop was held in June 2004 to discuss the IPY Science Plan and science initiatives/ideas and consider developing a German IPY “White Paper” for the next Workshop in June 2005. 77 EoI's involving or led by German researchers have been submitted to the IPY Programme Office following general endorsement. Drafting and further discussion of a national IPY “White Paper” which will be completed and distributed by May 2005. The NC has also had talks/meetings with German funding agencies (BMBF, DFG) regarding funding for IPY. In Dec 2004 there was a Call for RV *Polarstern* proposals for the duration of IPY. German priorities lie with:

- a) *Polar regions and changes of global climate - recent and present changes;*
- b) *Moving continents and evolutionary processes in polar regions;*
- c) *Exploration of the unknown and*
- d) *Development and operation of innovative technologies for autonomous observatories.*

The German NC would like to see a clear selection of umbrella programmes and corresponding sub-projects by the Joint Committee. It is critical to link the EoI/proposal outcomes with national funding application schemes and logistic/infrastructural requests; the second half of 2005 will be the critical time.

**Iceland** – Now completed its work on the chairmanship of the Arctic Council where the AHDR was a major product as was the completion of ACIA. These have identified that many variables needed for modelling climate change are still missing and IPY could help. An NC was established in January. Currently refining IPY activities plans at present and submitted one EOI – more to follow. Suggested to the JC that the Arctic Council will be the best way to link up policy related activities with other IPY activities.

**India** – NC in place and submitted one large EoI on palaeoclimate – more to follow. India will be looking for international collaboration opportunities. They have two polar research vessels and will send these to the Southern Ocean during IPY. It will also be trying to involve social studies and particularly EOC activities in the Indian IPY Programme.

**Japan** – In addition to the existing science proposals submitted to IPY the Japanese NC is particularly targeting schoolchildren in a number of initiatives. Had a call in which children put forward polar science proposals for IPY - sixty four proposals were submitted and these were presented at a big meeting. Four will go forward as EoI's..Also used the regular series of Arctic Research Symposia to have a full day this year on Arctic research – this meeting was open to all.

**Malaysia** – Have no logistics but have had 57 researchers involved in Antarctic projects with other nations since 1999. Several major proposals including teleconnections between equatorial and Polar climatic variability, “Weather Permitting” - a proposal for a climatic communication system in the polar landscape, response of polar, tropical and temperate microalgae to Global Warming and increased UV radiation and effects of isolation on the genetic biodiversity of shallow coastal benthic communities in Antarctica. Malaysia are organising a meeting on outreach and this will involve a number of non-polar nations, including Philippines, Indonesia, Thailand in the region.. There is interest in IPY in these countries but how can they become involved? The Malaysian government has already set aside US\$500,000 for IPY research activities.

**Italy** – The existing NC has looked at the EoI's it received (around 60) and endorsed most of them. They have subsequently realised that a further 35 were sent straight to the IPO. Have started a discussion with the relevant Ministry about whether there should be a special initiative for IPY (which would need a new law to be passed) or to upgrade existing polar funding. A new NC will be formed soon and it will be equipped to deal with data and EOC issues.

**Norway** – Have taken a strong role in developing a Norwegian contribution to IPY and this is reflected in over 110 EoI's involving or led (~50)by Norwegian researchers. Proposals for IPY funding are still with national funding agencies but the NC is optimistic. A website has been established. Three tasks at present – securing funding, preferably new money; establishing a national secretariat (ready by Fall) and try to facilitate the next steps in IPY for the Norwegian proposals. Norway will take over the Arctic Council chair after Russia and hold it over the Polar Year.

**Portugal** – A national Committee will be funded by the Portuguese NSF and the objectives of Portuguese involvement in IPY are to strengthen the participation of Portuguese researchers in polar studies, highlight the importance of polar studies to national authorities and politicians, constitute a National Polar Committee, become a signatory to the Antarctic Treaty and join SCAR. There are treaty links between Portugal and Brazil that may assist Portugal in developing IPY activities.

**Russia** – Involves a collaboration of the Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet), the Russian Academy of Science (RAS), the Ministry of Natural Resources (MNR), the Ministry of Science and Education and non-governmental organizations, associations and foundations such as the Polar Foundation and the Association of the Indigenous People of the North (RAIPON). A draft of the “Scientific Program for Preparation and Implementation of International Polar Year 2007-2008” has been prepared and Russian IPY activities should include:

- a) *Study of current and assessment of future climate changes in polar regions*

- b) *Development of the scientific basis for forecasting the processes in the atmosphere, ionosphere, hydrosphere, cryosphere and the ocean in polar regions;*
- c) *Detection of anthropogenic and natural origin environmental state changes and their influence on the ecosystems of polar regions;*
- d) *Ensuring the development and availability of the technical infrastructure needed for research in the Arctic, Antarctic (including Southern Ocean);*
- e) *Assessment of the social and economic consequences of the environmental changes in polar regions primarily influencing the life activity of indigenous peoples of the Arctic.*

The breakdown of Russian EoI's is 27 Arctic, 12 Antarctic and 10 Bipolar with a particular emphasis on lithosphere studies. Roshydromet is responsible for 28 of the proposals. It is intended to have cooperation with governmental and non-governmental organizations activities: WMO, ICSU, IOC, Arctic Council, IASC, etc., participation in international programs and projects such as CLIC, AMAP, ACIA, IABP, IPAB, etc. and bilateral and multilateral cooperation with the countries of Europe, North America and Asia: EUROPOLAR ERA NET, DAMOCLES, CARE, ISAC, AWLAP/NABOS, LAPEX/TRANSDRIFT, RUSALCA, Ny-Alesund/Barentsburg, etc.

New ice drift stations are in place and more to come – launched every two years. Russia has proposed a regional office to be a Sub-office of the International Project Office (IPO) of IPY, and work under the direction of the IPO. The main responsibility of the Sub-office would be to support the implementation of IPY-projects in the Arctic.

**Spain** – Following a slow start, there is now growing enthusiasm for IPY in Spain. 20 EoI's were submitted and more activities are coming forward, funding bids are being made and logistic issues being considered. The research vessel, *Hesperides*, may be made available for Arctic work for the first time.

**Australia** – Has an NC and is almost entirely focussed on the Antarctic. 16 proposals led by Australians. Do not yet have additional funding in place for IPY – this is an ongoing issue.

**Belgium** – Started their NC in 2003 and it has endorsed 12 EoI's. Plans with IPF to set up a new station in Queen Maud Land in the vicinity of the original IGY Belgian station of 1957-58 which closed in 1966. The location is a poorly studied location in Antarctica. It is planning Education and Outreach and using IPF a great deal in this.

**Brazil** – An NC has been set up which includes scientists, funding agencies, Navy logistics and Ministry representatives. They put all their proposals into 1 EoI and are heavily involved in Census of Marine Life. Cannot sort out funding until 2006 – national rules. Have agreed that all their polar activities in 2007-2008 will be directed to IPY. Have plans to be involved in the International Antarctic Institute and outreach within Brazil.

**UK** – The committee has met twice and produced recommendations on appropriate IPY research topics, which have been passed to the IPO and Planning Group. In October an open Town Meeting was held at the Royal Society, London and a discussion held on UK involvement in IPY 2007-2008. Over 150 IPY proposals are led by or involve UK scientists. The Natural Environment Research Council announced at the meeting a £5.3m Arctic-IPY initiative to fund UK research in the Arctic region during IPY. It is also hoped to use the equivalent Antarctic Funding Initiative (AFI) to support UK activities in the Antarctic during the period of IPY, in addition to the activities of the British Antarctic Survey in that region. A UK-IPY website is about to be launched.

**USA** – The National Committee has produced an IPY Vision Report, it has held an Agencies Workshop in July 2004 to initiate a dialogue on IPY and discuss Agency programmes and needs. NSF has been designated as the lead agency for IPY. There have been an ongoing

series of Agency luncheons and meetings. There is a considerable focus on Education and Outreach and on indigenous studies.

**Mark Surkin (NSF)** – (standing in for Karl Erb) - IPY work will be supported by NSF through unsolicited proposals and special solicitations for large, multi-investigator projects. Funding decisions will be based on merit review of intellectual merit, broader impacts and supplementary IPY criteria. These latter will relate to ICSU and NAS/NRC criteria, IASC, SCAR and other International Input, Community Workshops and Input, National Academies Studies and Inter-agency Planning. Emerging key areas of science are Arctic climate change research, Ice sheet dynamics and stability studies and Studies of life in the cold and dark. There is enthusiasm to work with agencies in other countries

### **International Organisations**

**CAFF** - The Arctic Council programme, Conservation of Arctic Flora and Fauna, is responsible for research and conservation studies across the Arctic. Its brief is to address the conservation of Arctic biodiversity, and communicate the findings to the governments and residents of the Arctic, helping to promote practices which ensure sustainability of the Arctic's living resources. It has several component programmes, all relevant to IPY including its flora, seabirds and protected area groups. Its major initiative, the Circumpolar Biodiversity Monitoring Programme (CBMP) includes community-based monitoring activities and could form an umbrella for a number of EoI's. Monitoring will include not only flora and fauna but also human community vulnerability and impact of climate change on harvests of waterbirds in the Arctic. CBMP is intended to provide the biodiversity component to the EoI COMAAR being coordinated from Abisko, Sweden. An Arctic Portal is being developed across the Arctic Council Working Groups, which could have great significance to IPY. CAFF are also working with AMAP to develop a pilot project as an ACIA follow-up.

**COMNAP** – There have been a number of discussions relating to COMNAP involvement in IPY. A major survey of Antarctic shipping opportunities has recently been completed and COMNAP are planning to take the June 30 results to the SCAR meeting in Sofia for detail discussion.

**ESF-EPB** - The Polar Board is committed to assisting the IPY in any way it can. The new EU funded initiative, EURO-POLAR, beginning in 2005, will potentially provide a new level of integration in polar research amongst European nations. It includes Greenland and Russia so a clear Arctic element. Paul Egerton also made the suggestion of approaching IGFA for IPY funding support. It would be meeting in May.

**ESF-BOREAS** – Rudiger Klein presented the EUROCORES programme BOREAS ([www.esf.org/boreas](http://www.esf.org/boreas)). EUROpean Science Foundation Collaborative Research Programmes mobilise national funding for joint multidisciplinary research programmes, provides a framework for creating a critical mass for (European) collaborative research on specific topics and open possibilities for integration of non-European research teams into the network. BOREAS involves 10-20 funding agencies and has a budget of €10m to fund around 20 projects. The Boreas theme is Humanities and Social Science based research in the circumpolar North and links with IASSA and potential IPY activities. It is intended that human, social and natural sciences find areas of cooperation and exchange, while the research agenda is set by humanities scholars. Each project is required to build multinational, multidisciplinary teams with a strong fundamental research component. Collaboration is encouraged with Arctic social scientists in Canada, USA and Russia and exchange with projects associated with IPY social science is actively encouraged. Networking will provide the glue between BOREAS and neighbouring initiatives.



**IASSA** – The International Arctic Social Science Association has taken a strong lead in developing a human dimension component in IPY 2007-2008. It's IPY task Group has developed the sixth IPY theme and contributed a human dimension input to the other five themes. Through the IASSA website social scientists can access an IPY Facilitation Initiative to provide a forum for a vigorous exchange of ideas, discussion, and active communication in developing IPY EoI's and full proposals. The site includes a listing of EoI's submitted to IPY.

**IOI** – The IoI are in favour of IPY and asked Ed Sarukhanian to make a presentation to the Board. Well received and decided to link with and contribute to IPY. Operational centres of IoI in Canada, Sweden, Japan and China have offered help in providing knowledge and resources to IPY. Internationally IOI can offer help in education, training, promoting and socio-economic issues. The IoI produce an Ocean Year Book and they are proposing an issue dedicated to IPY. The Editors have approved this for 2007 or 2008. The IoI also organize Pacem in Maribus (Peace in the Ocean) conferences each year. The next one is in Townsville, Australia ( 31 Oct – 3 Nov) on the theme of Building Bridges between Science, Technology and Society, and IPY could make presentations there. In 2007 the meeting (Youth and the Ocean) will be in Malta and could again be relevant to IPY. Mentioned that starting Jan 2005 UNESCO And others are organizing the International Decade for Education for Sustainable Development – could be a further opportunity for IPY.

**IPA** – The International Permafrost Association ([www.geo.uio.no/IPA/](http://www.geo.uio.no/IPA/)) represents scientists from 23 countries and has made considerable efforts to develop a coordinated approach for permafrost research in IPY 2007-2008. It has a proposal, the “Thermal State of Permafrost”, which aims to acquire a global snapshot of permafrost temperatures. It incorporates several proposals including CALM – a circumpolar network monitoring the active layer and particularly the summer maximum thaw. There is also an Arctic Circumpolar Coastal Observatory Network (ACCO-Net) involving several projects and the developing initiative to build up a network of monitoring sites and boreholes for Antarctic and sub-Antarctic permafrost, periglacial and soil environments (ANTPAS). The IPA approach also includes related proposals such as PEACE (relating permafrost and potential carbon emissions), societal-ecosystem interactions, land use impact on polar environments, spatial data management and an international university course on High Arctic Landscape Dynamics. Jerry Brown pointed out that funding would be required for data handling. He also suggested that IPY and IPA could jointly sponsor a meeting to commemorate 50 years since IGY.

**IASC** - A number of points were made by Odd Rogne including the need for the various international organisations contributing to IPY to map out their involvement with the IPO, including finding glue money and organizing projects. The role of international organizations in IPY was overlooked in the Framework document and a statement was required similar to that defining the role of national committees. For IPY to be successful it will be necessary to harmonise the international and national components. The importance of access to indigenous lands was also raised and the potential role of national committees in facilitating access was stressed.

**IPF** – Involved with Belgium but also has its own initiatives, including the POLARIS center in Brussels - a new facility based around a large ice core. A further one being built in Toronto. They are also behind the Dome Centre – an initiative to showcase new technologies dealing with climate change. Have been commissioned by Belgian government to build the new Belgian Station in Antarctica.

**IPS** – Essentially present with a listening brief on behalf of indigenous people.

**ISPRS** – The International Society for Photogrammetry and Remote Sensing has over 100 member organizations. ISPRS has an important role in promoting international cooperation for the advancement of photogrammetry, remote sensing and spatial information systems.

ISPRS is associated with a large number of international organizations and international organizations, e.g., UNESCO, ISO, SPIE. ISPRS joined ICSU in 1994. ISPRS has recently joined ICSU's GeoUnions. ISPRS established a new working group on polar research in 2004 and has suggested *Polar Research* as a new research scheme for ICSU's GeoUnions (other themes are Hazard, Health, Cities and Megacities, etc.). ISPRS is currently developing IPY proposal ideas. Beata Csatho is chairing an ISPRS Working Group on Polar and Alpine Research. Suggested by JC that the ISPRS should put in an EoI and establish a marker for involvement with other organizations and EoI's.

**NySMAC** – Ny Alesund Station Managers Committee – Identified at last ASSW the need for involvement in IPY. Have submitted an EoI – SVALBASE – enhancing Svalbard as a research site. It involves UNIS so a strong Education/Outreach capability. Identified 10 EoI's that link to SVALBASE.

**NOAA/AMAP** – NOAA has submitted a number of proposals to IPY and would be interested in helping (sponsoring) IPY activities in the areas of exploration, climate observations, prediction and modelling and data, outreach and decision support. USGS and the National Institute of Health are also interested in assisting IPY. USGS would be interested in seeing development of a programme on river discharge into the Arctic Ocean whilst the NIH and the Centre for Disease Control are interested in Human Health initiatives

Within **AMAP** – there is interest in IPY activities dealing with human health, contaminants, climate change/UVB (with IASC?), has begun collaboration with CAFF on biodiversity monitoring, has interests in data centres and is involved in development of land-based stations for multidisciplinary studies.

U.S. supports the creation of sub-committees for data policy and education, outreach and communication. The U.S. will contribute people to serve on these committees if asked. AMAP will assist with the data policy sub-committee if asked.

IPY has made significant progress so what more can the JC do?

- a) *IPY JC identifies subject areas with high international interest*
- b) *IPY IPO alerts community to these high interest areas and invites organizations to sponsor efforts to promote international planning and collaboration*
- c) *Organizations willing to sponsor an activity work through IPY IPO to prepare an overarching paper/plan to serve as international context for preparation of proposals to funding agencies*

Later actions could include:

- a) *IPY IPO create data base of funded projects, sorted by high interest area*
- b) *Just prior to IPY time period, JC in consultation with organizational sponsors conduct gap analysis for each high interest area, and make gaps known to funding agencies to encourage supplemental funding*
- c) *IPY IPO focus on high interest areas for continuing ECO activities*
- d) *U.S. agencies (NOAA, USGS, NIH/CDC) and Arctic Council programme AMAP.*

**Russian Polar Foundation** – The Polar Foundation has been involved with the concept of IPY since a Russian-EC meeting in Brussels in 2001 and is committed to supporting it. Has been involved in deployment of Arctic drifting ice stations and is planning another one for the IPY period.

**WCRP** – Modelling of the Earth System currently has significant sources of uncertainty and whilst modern climate models have improved descriptions of chemistry, ice sheets and permafrost they remain weak with respect to sea-ice, snow and solid precipitation. IGOS-P

Theme on the Cryosphere will summarise all cryospheric observation requirements and ways to improve them. The attention of IPY community will be essential. There will be a CliC Data Management and Information Panel Meeting in Boulder, 9-11 June 2005. IPY will be invited. WCRP is ready to help coordinate, provide a platform for or a contribution to the assessment of relevance to global change, modelling, data assimilation, observation coordination or data and information management. It was pointed out that there will however be no extra financial resources available.

## **7.0 Role of National Committees**

here are differences in organisation (flexible vs. formalised) and differences in function (facilitating vs. managing directly). Possible large measure of agreement on:

- a) NCs will be different in different countries
- b) All have an essential function in facilitating funding as well as outreach and education (amongst other issues).
- c) Their function should not be too formalised (preserve international aspect) – this is particularly important for developing countries.
- d) They should be informed about EoI's in parallel with the EoI submitters but it is accepted that this will have practical problems as proposals are international not national, and many nations have “ownership” of any given proposal. The cluster tables offer a way for NC's to see the distribution of the proposals in which they are involved.

## **8.0 Logistic Issues**

Many of the IPY proposals will be using national logistics so how realistic is it for IPY to work through COMNAP and IPY? COMNAP have assembled a listing of ship availability in the Antarctic over the IPY period and will be able to assemble similar information for aircraft and land stations. FARO are less well developed than COMNAP but can play a similar role in assembling such information. Note that ships can be coordinated but more difficult for aircraft as many are commercial aircraft. It was suggested that a list of satellite data products availability could usefully be prepared for IPY. Another suggestion was that polar logistic operators consider setting aside ~10% of space on vessels/stations for young scientists to be involved in IPY. It is important that COMNAP and FARO interact with the JC and IPO in identifying what the berthing requirements will be for IPY projects. Clearly these requests need to be compatible with existing core programmes.

*ACTION – IPO to interact with COMNAP and FARO to develop a process for providing berthing information.*

It was again stressed that access to the Arctic will need permissions from indigenous communities and FARO may have a useful role here as will Arctic Council, relevant national committees and the Indigenous Peoples Secretariat.

*ACTION – IPO to provide information on EoI logistic requirements to COMNAP and FARO*

## **9.0 Funding for IPY**

Two elements of IPY funding – that required to fund the IPY management structure and that required to put together multi-national groups (which will mainly come from national sources).

Are there plans amongst international organisations for funding IPY? Paul Egerton considered that the EU Framework 7 funding initiative will come too late for IPY but there are other European initiatives where various European partners could develop a coordinated call. IPY needs a high level link to the European Commission if it is to have any chance of

influencing the Commission. A new EC Director-General (Environment) is being appointed and needs to be made aware of IPY. The example of EUROCORES was raised for international activities– the funding stays within countries but supports international actions. However a EUROCORES project takes up to two years to put together. Both the International Group of Funding Agencies (IGFA) and EuroHorcs were mentioned as possible targets for contacting funding bodies in a coordinated manner and finding some “glue” money for sub-committees etc.

Paul Egerton suggests that the JC provide a list of requirements to put on the agenda of the next EPB and IGFA meetings. A May meeting of IGFA will have SCAR and COMNAP present and could also involve IASC and others.

*ACTION – JC will need to make a decision on using the IGFA meeting in this way.*

Participants in the IGY are actually some of the greatest supporters of IPY 2007-2008 as they know how successful the Polar Year can be. We should use these enthusiasts to sell IPY to funding sources.

It would be helpful to share promotional material between countries to make the most of such efforts. A list of countries which have raised funding would be useful information for other countries to use.

*ACTION – IPO to regularly contact countries for information on funding.*

National organisations will need to fund their own national contributions to IPY first and then support international links. Is there merit in bringing national agencies together in an international meeting to discuss interactions? IGFA already does this but there is a major time constraint for IPY.

*ACTION – JC and IPO to contact key agencies to consider an international meeting. EPB have offered to help bring NSF, EC together.*

Colin Summerhayes presented a list of bullets defining “IPY in relation to Societal Issues” (see Appendix) . Such information would be useful in selling IPY to politicians. This provides a useful draft which could be amended with a bullet about providing indigenous people with the tools and abilities to tackle these societal issues and there could also be a further bullet relating to capacity building.

*ACTION – Further comments to be passed to Colin.*

## **10.0 Data Management**

Presentations by Mark Parsons (NSIDC/e-GY) and Taco de Bruin (JCADM). The Electronic Geophysical Year is concerned with data release, data preservation, integration and discovery and capacity building with a focus on “e-science” and virtual observatories. The objectives are to digitize and make available analogue records, make existing data sets available with free access to all, develop a system of Virtual Observatories and embrace and extend the IGY principles of data sharing and scientist involvement. It has the support of IUGG and IAGA and is endorsed by ICSU. The e-GY bridges to other international years and organizations such as the Group on Earth Observations (GEO). Its broader scope could help IPY determine and define appropriate data systems and practices and it could inform the IPY data strategy and augment the DIS. Collaborative outreach with e-GY could help get IPY data into the classroom and public consciousness whilst •IPY involvement will help move e-GY forward. Concerns about how e-GY would handle satellite data or terabytes of geophysical data. but

suggests it is not about technology, rather the relevant people and best practices. Will need capacity building to get enough people to deal with the vast amounts of data.

IHY have achieved virtual observatories and the IHY is part of both e-GY and IPY so a reasonable start has been made.

IPY will need its own data management and the IPY-DIS would need to do this. E-GY can help but would not do the management. There are already a number of management plans available and there is an existing data management policy report recently published by ICSU that could also contribute significantly. Also mentioned that there is a workshop advertised on the ICSU website about data relating to IGOS.

IPY data should be fully accessible but not necessarily freely available as there will always be some administrative overheads to cover. The issue of IPR was raised, particularly in the context of indigenous knowledge, and it was accepted that there will need to be some exceptions regarding availability of such data.

The proposed ad hoc task group can develop a policy framework that the Data Policy Committee can then take on and implement through the DIS. The same ad hoc group could look at the data content of IPY proposals come June 30 to assist the JC and IPO. The Data Policy Committee should have a JC member on it.

## **11.0 Education and Outreach**

Presentation by Lars Kallerud. The University of the Arctic involves 75 institutions with a further 20+ to come. Strong opportunities for graduate students to be involve in north2north and south2north student exchanges with laboratories of IPY researchers when the researchers are not in the field. Ministers of Arctic states have met to discuss Education and there is a plan for Russia (as AC chair) to do this in the 2006 programme. The U of A can usefully interact during IPY with ICARP activities (its WG 11 is dealing with Arctic Science in the Public Interest) and with the proposed International Antarctic Institute). U of A are prepared to coordinate the IPY education initiatives.

*ACTION - IPY JC will officially approach the University on this issue.*

The International Antarctic Institute (or University of the Antarctic) is currently being set up with agreements being made with a number of circum-Antarctic institutions. Several offers have already been made to bring students into the Antarctic through the IAI.

*ACTION - The NC's need to provide recommendations to JC about possible candidates for the the EOC committee.*

## **12.0 Interactions with other Organisations**

Bob Corell presented on ICARP II and ACIA. The goal of the ICARP II process is to prepare arctic research plans to guide international cooperation over the next 10-15 years. ICARP II is intended to complement ongoing national and international programmes and planned major initiatives both domestic and international such as the International Polar Year. IPY stands alongside ICARP II, ACIA, ISAC etc., in looking at the polar regions and these programmes should be linked to get the best return. There are interactions and in particular some good individual relationships but the current impression in the community is that these programmes are not integrating. An assessment has been made of the studies currently submitted to IPY and approximately 40 have been identified that would mesh to varying degrees with the proposed areas of ICARP interest, specifically with achieving some aspects of scientific question 1. An ongoing watch is being made of IPY submissions as countries further refine

their proposals. The ACIA authorship teams have identified several or gaps in knowledge and insights, all of which have relevance to IPY:

- a) *It is increasingly clear that we must substantially increase our collective understanding of the Resilience and Vulnerability of Coupled Human-Natural Systems.*
- b) *Understand the Asynchronous and Rate-limited Processes that govern the adaptive behavior of Arctic ecosystems, and the impacts of such on residents of the region*
- c) *Understand much more thoroughly the connected behavior of the hydro/cryosphere-human system of the Arctic Basin and its surrounding land masses.*

The challenge for the scientific community and the various polar research perspectives (e.g., IPY, ICARP II, ACIA Gaps, ISAC, etc.) is to demonstrate the connections among and between our many efforts to plan for and implement research across the polar regions. Bob considers the different programmes to be “similar in substance” but having “different taxonomies”. The challenge is to link programme activities without limiting intellectual curiosity or research effectiveness. It is proposed to:

- a) *Provide each other with, and integrate the details of, the planning and implementation documents within each others efforts*
- b) *Hold periodic conference calls between the leadership of the various efforts, and*
- c) *Provide funding agencies and planning/implementation teams with periodic updates on the coordination efforts.*

Other ideas are welcomed to assure connectedness ?

*ACTION – JC and IPO to organise exchange of information and investigate video conferencing between leading people in ICARP and IPY*

Current and on-going research efforts, include Search/ISAC, IASC Projects, AOSB/ASOF, ArcticNet, and 100's of projects focused on Arctic processes and conditions. Funding of science in the polar regions currently runs at around \$1bn. IPY and ICARP Planning now adds to the existing effort and will require another \$1bn. The challenge is to maintain coherence and interconnectedness without limiting innovation and cutting edge ideas. This is still relatively simplistic. There is a rhythm of legislative activities that needs to be mapped on to the above structure. Also need to deliver IPY products to match the timescale of societal needs, not scientists timescales. IPY researchers will need to tie in better with these timescales. A diagram to illustrate these relationships could prove useful in selling to funding agencies. Need a GEOS meeting to deal with these issues. A GEOS meeting will be needed to make progress on these issues. Agreed there could potentially be a session on IPY at ICARP II. There is an IPY item on the ICARP II agenda, November 2005. At least 3 of the ICARP II projects could be a home for Biological and Social Science projects from IPY. How can one make an interaction such as that with ICARP II substantive?

A final point – IPY needs to have visibility at the highest political level – Arctic Council should be an important player in IPY.

John Crump of IPS proposed modifications to Action Items 32 and 33 in the listed outputs and actions of JC meeting 1.

*Action 32 -JC will also engage the political and governmental communities, including ATCM and the Arctic Council. The JC especially appreciates the strong support for the IPY expressed by the council at its 2004 Ministerial meeting and will work with the Chair of the AC Senior Arctic Officials to ensure that the council's views are incorporated into its work.*

Action 33. *JC recognizes the special role of Indigenous Peoples at the Arctic Council and will invite an indigenous researcher/representative to join its work on education and outreach.*

These will be considered by the JC

### **13.0 Summary of Issues for the JC to consider**

- 1) Consider a Second Call in Late 2005 – will announce in August
- 2) Better info on the website on what is meant by a “deadline” and how the IPO/JC will deal with proposal submissions.
- 3) Better links to various polar institutions and demonstrate these links
- 4) Clarify role of National Committees.
- 5) Role of international organisations to be defined as this is missing from the Framework document.
- 6) Interaction with other international organisations (notably e-GY and ICARP II)
- 7) Action on data and EoC issues needed quickly. An observing system task group to be created. Also ToR’s for these committees.
- 8) IPO will extract out logistic requirements for COMNAP and FARO.
- 9) Need to develop strong justifications for funding. Why do we need additional money? Set up a meeting(s) with funding agencies, May-June.

**JCEE**

**20-04-05 (v1.1)**

## **Appendices**

*a) Agenda, b) Topic/Cluster Mapping, c) Societal Impact Statement,  
d) Participants List*

### **IPY 2007-2008 OPEN CONSULTATIVE FORUM**

**IOC Headquarters, UNESCO Building, Paris**

**March 10-11, 2005**

#### **INITIAL AGENDA**

##### **DAY 1**

**09:15** Welcome

**09:25** Participant Introductions

**09:40** Outline of IPY planning to date

**10:30** **Break**

**10:50** Outline outcome from EoI assessments

**12:00** Where do we go from here with proposals?

**13:00** **Lunch**

**14:00** Updates from National Committees/International Organisations

**15:30** **Break**

**16:00** Continue presentations to conclusion and then close meeting for the evening.

##### **DAY 2**

**09:00** Role of National Committees in IPY

**10:00** Logistics in IPY including issues of access/local involvement

**10:40** **Break**

**11:00** Data and Information Management

**12:00** Education/Outreach/Communication

**13:00** **Lunch**

**14:00** Linking IPY with other Organisations – e.g. ICARP, e-GY, AC, etc.

**14:45** Distributed IPY programme offices.

**15:30** Summary of OCF issues for consideration by JC



**16:00** Close

## **Framework Themes and Clustering of Expressions of Interest**

### **(Version 1.0)**

The list given here illustrates how the clustering of Expressions of Intent maps onto the original six themes of IPY 2007-2008

#### **THEME 1 - Status**

- Biodiversity of Polar Regions (Marine, Terrestrial, Lacustrine)
- Clouds, aerosols and atmospheric chemistry
- Hydrological cycle and freshwater budget
- Ocean circulation
- Space Snapshot
- Ice Caps, Ice Sheets, Glaciers and Permafrost
- Weather and Climate
- Biochemistry and Ecosystems
- Coasts and Margins
- Atmosphere ocean ice (THORPEX)

#### **THEME 2 - Change**

- Life Under Natural & Anthropogenic Changes: Stress, responses & adaptation
- Migration: Invasions, expansions reductions
- Paleoclimate (Glacier/Ice Core; Geosciences, Atmosphere & Climate)
- Adaptation and Vulnerability: coupled human environment systems
- Transitions and Border Zones
- Rapid Change Societal Responses
- Ecosystem Response to change and variability in the physical environment
- Evolution of Polar Glaciation

#### **THEME 3 - Global**

- Teleconnections between Pole and mid-latitude
- Plate tectonics and Polar Gateways

#### **THEME 4 - Frontiers**

- Exploration Beneath the Ice (traverses and earth history, sub-glacial lakes)

#### **THEME 5 - Vantage Point – Observing System**

- Life in the Polar Regions; Pattern evolution and adaptation
- Geophysical, Glaciological Atmospheric and Climate Observation Systems
- Local and indigenous visions
- ICESTAR
- Astronomy
- SPARC

#### **THEME 6 - Human Issues**

- Natural Resources Uses, Management and Conservation
- Northern Resources
- New Risks and Stresses (inc. contaminants)
- Resources – Geosciences

#### **Outreach and Education**

- Preservation of IPY Legacy*

## ***IPY IN RELATION TO SOCIETAL ISSUES (DRAFT)***

*The improvements that the IPY will bring to the polar regions in new knowledge, in enhancements to the systems observing change there, and in understanding of the natural and human processes at work there, will lead to societal benefits in a number of areas. These are:*

- Improving weather information, forecasting, and warnings;
- Improving predictions of climate variability and change;
- Mitigating and adapting to environmental factors affecting human health and well being;
- Reducing loss of life and property from natural and human-induced disasters;
- Improving the sustainable management of fisheries and agriculture;
- Improving the management of resources of water and energy;
- Improving the management and protection of terrestrial, coastal, and marine ecosystems;
- Understanding, monitoring, and conserving biodiversity.

Enhancements to the observing systems will make a direct contribution to the implementation of the polar elements of the Global Earth Observing System of Systems (GEOSS). Benefits will accrue most quickly to polar communities where data are shared rapidly, especially in the areas of weather forecasting and climate change. It is anticipated that the societal benefits will arise through national activities undertaken where appropriate through international collaboration.

**PARTICIPANTS IN THE OPEN CONSULTATIVE FORUM,  
IOC, PARIS, March 10-11, 2005**

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