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Summary Report on IPY 2007–2008 by the ICSU-WMO Joint Committee

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The International Polar Year 2007-2008 (IPY), the largest coordinated polar program ever undertaken, came officially to an end in a ceremony in Oslo on 12 June 2010.

An estimated 50,000 researchers, local observers, educators, students, and support personnel from more than 60 nations were involved in the 228 international IPY projects (170 in science, 1 in data management, and 57 in education and outreach) and related national efforts. IPY generated intensive research and observations in the Arctic and Antarctica over a two-year period, 1 March 2007–1 March 2009, with many activities continuing beyond that date. IPY 2007–2008 involved a large range of disciplines; all IPY projects included partners from several nations and in some cases from Arctic indigenous communities and residents' organizations. IPY 2007–2008 included education, outreach, and communication of science results to the public, and training the next generation of polar researchers among its primary missions. It broadened the ranks of its participants and the diversity of their products and activities to an extent never realized or even envisioned in the earlier IPYs. It reached out to many new constituencies, including polar residents, Arctic indigenous nations, and millions of people on the planet with no direct connection to the high latitudes.

IPY 2007–2008 generated a much anticipated stimulus in the form of substantial new funding for polar research and monitoring programs, new observational and analysis technologies, integrated system-level approaches, and a broadened circle of stakeholders. It introduced new research and organizational paradigms that will have a lasting legacy of their own. It showed the power of integrative vision, and consolidated new trans-disciplinary practices in polar science. It sent a powerful message about the societal value of advanced and concerted studies on environmental change across the polar regions.

This paper reports to the ATCM on the closing of IPY 2007–2008 and introduces the IPY Summary overview produced by the ICSU-WMO Joint Committee for IPY.

2010 IPY Oslo Science Conference

The five-day IPY Science Conference, *Polar Science–Global Impact* (8-12 June, 2010) held in Oslo became the concluding event for IPY 2007–2008. This meeting was designed to celebrate the accomplishments of IPY 2007–2008, to display and explore the richness of IPY data, and to chart future directions for polar and global science.

The Oslo conference, in planning since 2006, emerged as the largest ever gathering of polar researchers, educators, science managers and public officials. It engaged more than 2300 participants from 49 nations and featured more than 2000 presentations (1050 oral talks and over 1000 posters - <http://ipy-osc.no/section/news>). IPY 2007–2008 was officially closed on the last day of the Conference.

Associated to the Conference was a workshop on 'Bringing Polar Science into the Classroom'. This was attended by 114 teachers from around the world. More than 600 early career scientists submitted abstracts (almost 25% of the total abstracts) to the OSC and competed for 400 travel support stipends. Another crucial event was the workshop on IPY legacy organized jointly by AC and ATCM attended by more than 70 representatives of IPY-JC, SCAR, IASC, AMAP and many national polar scientific and indigenous organizations.

Closing down of the JC and IPO

The ICSU/WMO Joint Committee for IPY 2007–2008 (JC) was officially terminated on 30 June 2010. The JC was created in November 2004 and held nine meetings between March 2005 and June 2010,

The role of the JC as the recognized leadership body and the ultimate authority in IPY was firmly backed by the IPY sponsors, ICSU and WMO. The primary role of the JC was to encourage and build multidisciplinary international polar research under the IPY umbrella and to assess submitted proposals against the IPY criteria. Additionally, the JC approved and authorized the membership and Terms of Reference for its

subcommittees; the establishment of the Eurasian sub-Office in St. Petersburg, Russia; the Ethical Principles for the IPY; and the selection of venues for major IPY conferences.

The IPY International Programme Office (IPO) based at the British Antarctic Survey (Cambridge, UK) since November 2004 was closed down on 30 September 2010. For almost six years, the IPO contributed the many administrative and organizational functions necessary for the smooth running of such a large multi-disciplinary international initiative. IPO arranged and maintained regular contact with representatives of the JC and was an interface between the international stakeholders WMO, ICSU, IASC, SCAR, AC, ATCM, IOC, and between National IPY Committees, Project Coordinators and Subcommittees. Among many other contributions to the IPY, between September 2007 and March 2010 the IPO conducted a series of eight Polar Days (eventually extending to Polar Weeks). IPO documentation and files have been deposited at the Scott Polar Research Institute (SPRI) following the agreement between IPO and SPRI signed in 2008, and the IPO/IPY website was migrated to Arctic Portal (<http://arcticportal.org/about>).

IPY Summary published by the Joint Committee

The ICSU-WMO Joint Committee for IPY produced a major summary overview of the IPY activities in which the Committee, its direct predecessors, the IPY International Programme Office, and associated teams were directly involved. The volume of 38 chapters in five parts (*Planning, Research, Observations, Outreach, and Legacies*) covers the development of IPY 2007–2008 for almost a decade, from 2001 until summer 2010. It has engaged almost 300 contributing authors and reviewers from more than 30 nations. This broad overview of IPY 2007–2008 demonstrates the extensive and essential contribution made by participating nations and organizations, and provides a prospective blueprint for the next IPY (see cover and table of contents attached).

The JC summary overview acknowledges the role of IPY sponsors, ICSU and WMO, of many other international organizations (ATCM among them), national agencies and IPY committees, members of the IPY subcommittees, secretariats and projects, the staff of the International Programme Office, and many thousands of IPY participants in successful implementation of IPY 2007–2008.

The 720-page volume (Krupnik et al., 2011) has been published in May 2011 by the Canadian Circumpolar Institute (CCI) Press in Edmonton, Canada, in collaboration with the University of the Arctic. The digital version of the IPY 2007–2008 summary overview is available for free download at several websites, including http://www.wmo.int/pages/themes/wmoprod/index_en.html, <http://www.icsu.org/publications/reports-and-reviews/ipy-summary/ipy-summary> and <http://www.arcticportal.org/ipy-joint-committee>. The volume was officially presented by ICSU and WMO on 30 March 2011, also at the Arctic Science Summit Week (ASSW) in Seoul, Korea.

Montreal 2012 post-IPY Conference

The next post-IPY conference, *From Knowledge to Action*, is scheduled for 22–27 April 2012 in Montreal, Canada. The conference is expected to attract a large group of science, policy and political delegates from around the world and to serve as the wrap-up event for IPY 2007–2008. This meeting will consider the policy implications of the IPY contribution to polar research, education, public status of science, and international collaboration in the polar regions (www.ipy2012montreal.ca/index.html).

Progress by SCAR and IASC in taking on elements of the IPY legacy

SCAR has been deeply involved since the initial stages in the IPY 2007–2008 planning, implementation and strengthening of its legacy.

SCAR and its northern counterpart, the International Arctic Science Committee (IASC) are committed to implementing key aspects of the IPY legacy, among them (i) the development and implementation of observing systems such as the Southern Ocean Observing System and the integrated Arctic Ocean Observing System; (ii) the implementation of an effective polar data and information management system, assisted by ICSU development of a Polar Information Commons; and (iii) the development of the next generation of

polar scientists (via APECS). The IPY legacy will also be a focus of the SCAR Open Science Conference in Portland, US (16-19th July 2012) (<http://scar2012.geol.pdx.edu/>).

SCAR and IASC signed in 2006 a Letter of Agreement and are working together to ensure that both communities together make an integrated and comprehensive contribution to addressing the urgencies of polar research. A Joint Bipolar Action Group was formed in early 2008 and it helped to initiate a number of joint bipolar activities. SCAR and IASC have agreed to maintain such Bipolar Action Group for another two years.

SCAR and IASC are working closely with ICSU on the development of a Polar Information Commons to facilitate polar data and information management and exchange; a first step was the publication of the SCAR data and information management strategy.

The International Polar Decade

After the end of IPY, WMO proposed another major polar initiative tentatively named ‘The International Polar Decade’ (IPD). The main goal of IPD is to launch a process of sustained and coordinated research and observations in the polar regions to meet the requirements of the long-term climate change studies and improve prediction to benefit societal needs. The initiative is currently under discussion in different fora, for example by WMO, ICSU, SCAR and IASC, amongst others.

ATCM involvement in IPY legacy

The ATCM has discussed and has been informed regularly about progress in the organization of IPY since the early stages of the IPY process, with the first interaction in ATCM XXVI (Madrid, June, 2003). In many cases the connection was produced by means of papers presented by SCAR reporting about state and progresses on programme planning.

The ATCM continued its support for, and overview of the IPY planning and implementation process at each of its subsequent annual meetings during 2004–2009 (ATCM XXVII, 2004, Cape Town; ATCM XXVIII, 2005, Stockholm; ATCM XXIX, 2006, Edinburgh; ATCM XXX, 2007, New Delhi; ATCM XXXI, 2008, Kyiv; ATCM XXXI, 2009, Baltimore).

The ATCM representative was invited to serve on the IPY Joint Committee as an observer since 2006.

The most critical ATCM Declarations and Resolutions related to IPY include:

- *Support of the ATCM for the International Polar Year 2007-2008*, (Resolution 2 (2003) (ATCM XXVI, Madrid, 2003).
- *Edinburgh Antarctic Declaration on the IPY 2007-2008* (ATCM XXIX, 2006).
- *Resolution 3 (2007)* (ATCM XXX, New Delhi, 2007) on extend and maintain long-term scientific monitoring of environmental change.
- *Ministerial Declaration on the IPY and Polar Science* adopted at the Antarctic Treaty-Arctic Council joint meeting in Washington on 6 April 2009.
- *IPY Report: Accomplishments and challenges (WP 48 by SCAR)*, and Resolution I (2009) about *Ensuring the legacy of the International Polar Year* (ATCM XXXII, Baltimore, 2009).

IPY 2007–2008 has demonstrated the benefits of an enhanced level of support for polar research into the future, as well as the need to establish and sustain comprehensive long-term polar observing systems for rapidly changing polar environments. The broad international effort of IPY contributed to a new level of inter-disciplinarity and to multi-faceted visions of polar regions and processes. It increased cooperation between scientists, organizations, and nations in the generation of knowledge and lessons for the sustainable use of our planet.

As a continuation of its previous actions in support of IPY 2007–2008, it is of great importance that the ATCM continues to be involved in developing and implementing the IPY legacy and related post-IPY initiatives.

References

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