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WMO WP-32
Prepared by WMO
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INTERNATIONAL POLAR YEAR (IPY)

(Submitted by WMO)

Summary and purpose of document

To inform CGMS-34 on the current status of the preparation of the International Polar Year 2007-2008 (IPY), the joint initiative launched by WMO and ICSU in 2003. IPY 2007-2008 should result in an intensive burst of internationally coordinated, interdisciplinary research and observations focused on the Polar Regions. Substantial progress has been made by international scientific community and Joint Committee for IPY (JC) resulting in preparation and endorsement by JC of more than 200 project proposals for IPY of which at least half would significantly improve the observational networks for atmosphere, ocean and cryosphere in Polar Regions.

A preliminary subset of satellite data requirements for IPY projects has been established thanks to an Announcement of Opportunity in support of IPY issued by ESA in June 2006 and the IPY Project "Global Inter-Agency IPY Polar Snapshot Year (GIIPSY)". In order to assist in establishing a dialog between IPY projects and satellite operators to meet requirements for satellite data, products and services, the IPY Sub-Committee on Observations created a Space Task Group that should consist of representatives of satellite agencies. This group should ensure that satellite systems be used to their maximum potential for IPY purposes. Satellite operators are urged to actively participate in the IPY implementation through provision of satellite data, products and services on request and involvement in IPY projects implementation.

DISCUSSION

1. IPY 2007-2008 initiated by ICSU and WMO will be an intensive and internationally coordinated campaign of high quality research activities and observations in Polar Regions. Following Res.34 (Cg-XIV), Res.11 (EC-LVI) and Resolution of 28th ICSU Assembly, ICSU and WMO as lead agencies for the IPY preparation and implementation had established in November 2004 a Joint Committee (JC) for IPY. Membership of the JC, its Terms of Reference and other relevant material are available (www. ipy.org). The JC had established three Sub-Committees: on Observations, on Data Policy and Management, and on Education, Outreach and Communications.

2. The main role of the JC is to facilitate projects and activities within IPY that are consistent with the six themes and observational initiatives outlined in the Framework for the International Polar Year 2007-2008. The official observing period of the IPY is from 1 March 2007 to 1 March 2009. The main geographic focus will be the Earth's high latitudes, but studies in any region relevant to the understanding of polar processes or phenomena will be encouraged.

3. In order to collect the information on IPY projects planned by the nations, ICSU and WMO, in November 2004, issued a call to ICSU Scientific Unions, WMO Permanent Representatives and to National Committees on IPY to provide the JC with Expressions of Intent (EOI). About 1200 EOI were collected by mid-January 2005 at the International Programme Office on IPY (IPO) established by ICSU and WMO in Cambridge, UK. They have been evaluated by the JC and, as result, all EOI proponents received a response from the JC, indicating the category of EOI and requesting to develop full proposals based on EOI by 31 January 2006.

4. In April 2006 JC had completed an evaluation of 452 full project proposals received from nations up to 31 January 2006 for scientific or educational significance, for consistency with the IPY themes, for evidence of international collaboration, and for evidence that activities proposed would contribute to an IPY legacy. Out of these 452 project proposals JC endorsed 225 (172 scientific proposals, one for data services and 52 for education and outreach). These internationally coordinated, interdisciplinary projects are addressing a wide range of research topics in both Polar Regions, and through their implementation the IPY will involve more than 50,000 individuals from at least 60 nations. The core participants of IPY are self-organizing groups of researchers, their parent organizations, national institutions and international bodies with a role in Polar Regions research and monitoring. Over 100 scientific projects are focused on comprehensive studies of the atmosphere, ocean, cryosphere and hydrological cycle, ecosystems in Polar Regions as well as on the study of climate change impact on socio-economic and living conditions of local population.

5. The IPY Sub-Committee on Observations (SCOBS) established by JC in November 2005 has recently finalized the assessment of the observing systems that are contained in IPY scientific projects endorsed by JC. The assessment covered all projects within the domains Atmosphere, Ocean, Ice, Land, People, and Earth & Space (partially). The results of the assessment are presented in table forms for each domain and are available at IPY website. The assessment results are very informative, in particular with respect to observational data requirements, data sources, technology/institutional gaps, data management requirements and potential legacy of observing systems planned to be established during the IPY. Regarding the requirements for satellite data, products and services, the assessment showed that they were not always consistent or sufficiently detailed to establish an immediate dialog between the project coordinators and the satellite agencies. Coordinators of IPY projects have been requested recently by International Programme Office for IPY to specify their requirements to satellite agencies through special IPY data survey. Replies are expected in near future. However a preliminary subset of satellite data requirements was set up thanks to Announcement of Opportunity in support of IPY issued by ESA in June 2006 and IPY project "Global Inter-Agency IPY Polar Snapshot Year (GIIPSY). This provides the SCOBS with an opportunity to assist in establishing a dialog between IPY projects and satellite operators.

6. To carry out this dialog an appropriate mechanism such as Space Task Group (STG) was established within SCOBS on recommendation of WMO High-level Satellite Policy Meeting (Buenos-Aires, Argentina, January 2006) under chairmanship Dr D. Williams, Director-General of British National Satellite Centre. This group has to ensure that space-based observing systems are to their maximum potential optimized for IPY purposes and for this reason to assemble concrete mission plans for the space agencies, including access to the planning tools (e.g. mission planning software for each satellite) and specifications on the various instruments for trade studies. The nomination of representatives of satellite agencies to serve in STG is underway.

7. CGMS is invited to provide guidance to the IPY Sub-Committee on Observations and its Space Task Group in particular regarding effective use of satellite facilities in IPY.