

Report on IPY Data Activities March – October 2007
for the 6th Meeting of the IPY Joint Committee
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Priorities

1. Identify what data are to be collected as part of IPY
2. Determine how and where those data will be available
3. Ensure the long-term preservation of IPY data

Data Coordinators

- Half-time IPYDIS coordinator—Mark Parsons
- Operational Data Coordinator—Øystein Godøy
- Half-time international coordinator—TBD, Canada

IPYDIS Services

- IPYDIS website (ipydis.org)
 - Discussion forum and help desk
 - Standards and policies
 - Presentations, news, events
 - Information on data access (e.g., ESA access) and submission
- IPY metadata profile—minimum discovery metadata for all IPY data (ipydis.org/metadata.html)
- IPY Repository criteria
- IPY metadata registry and portal (gcmd.nasa.gov/portals/ipy/) directly linked to developing Canadian, Norwegian, and US metadata systems.
- IPY Publications Database (www.nisc.com/ipy)
- Operational Data web site (ipycoord.met.no)
 - ECMWF data access: METNO is currently working on technical solutions to provide IPY-users with access to ECMWF data. The technical solution will be WMO WIS compliant in time, although the first version probably will lack some WIS functionality. In the mean time, check out OGC WMS access to ECMWF-data through openmetoc.met.no
 - Operational metadata registry
 - Sea Ice Logistics Portal (www.ipy-ice-portal.org)
- Distributed geobrowser, Web Mapping, and other geospatial services
- Arctic Portal for information and maps of the Arctic (arcticportal.org)

- Support with management of local and traditional knowledge and community based monitoring (nsidc.org/eloka)
- Developing an IPYDIS directory of services
- Planning a “how to interoperate” workshop for the St Petersburg IPY meeting

Outreach and Communication

- Focused discussion at WDC Directors meeting
 - Formal request for participation in IPY (see data centers below)
 - Initial definition of different levels of WDCs
- IPY GeoNorth: First International Circumpolar Conference on Geospatial Sciences and Applications (www.ipygeonorth.org)
- Presentations at JCADM, IUGG, GeoNorth, WDC Directors, Canadian IPY workshop
- IPYDIS "Town Hall" Meeting (<http://classic.ipy.org/start/index.php/forums/viewthread/13/>)

International Coordination Proposals

- IPYDIS coordination office and union catalog, US NSF—partially funded; no union catalog.
- Exchange for Local Observations and Knowledge of the Arctic: Pilot effort to provide data management and user support to facilitate the collection, preservation, exchange, and use of local observations and knowledge of the Arctic, US NSF—partially funded. Four projects supported, plus a general help desk.
- Web Information Services for Polar research: Union catalog and web services for discovery and integration, US NSF—declined (despite excellent reviews).
- IPY Data and Information Legacy in Europe, EU Framework 7—declined
- International Network of Knowledge of Sea Ice: Network development and enhanced interoperability, US NSF—pending.
- Data management workshop proposal in the works.
- Other US and European opportunities are being considered.

National Coordination Activities

Following is what I happen to know of national IPY data activities. I have not done an assessment, so there may be other activity, but it has not been reported to me.

Canada

- Very active data committee
- Developing a metadata repository

- IPY investigators data workshop (report pending) illustrated concern and lack of understanding on data policy

China

- Central IPY Repository at the Polar Research Institute of China

Norway

- Active data committee
- Data management plans from all projects
- Project pending to develop a shared metadata system

United Kingdom

- Acting national data coordinator appointed

United States

- Data management project for the Arctic Observing Network established (www.eol.ucar.edu/projects/aon-cadis/)

Project Status

Of the 80 “Substantially Funded” IPY Science projects, we have received information from 49. Table 1 summarizes the information while a separate spreadsheet provides more details. Several partially funded projects have responded and have established archives, but they are not included in this assessment.

Table 1: Basic assessment of the data management plans (short-term and long-term) for the 80 substantially funded science projects broken out by disciplinary placement on the honeycomb chart. Note: “Questionable” does not necessarily mean the plan is lacking, but only that I do not have sufficient information to assess it.

		Good	OK	Questionable	No Info	Total				
Atmosphere	short-term	1	14%	2	29%	1	14%	3	43%	7
	long-term	1	14%	1	14%	2	29%	3	43%	7
Earth	short-term	2	67%	1	33%	0	0%	0	0%	3
	long-term	2	67%	1	33%	0	0%	0	0%	3
Ice	short-term	3	20%	2	13%	3	20%	7	47%	15
	long-term	2	13%	2	13%	4	27%	7	47%	15
Land	short-term	4	20%	5	25%	6	30%	5	25%	20
	long-term	2	10%	3	15%	10	50%	5	25%	20
Ocean	short-term	3	23%	1	8%	1	8%	8	62%	13
	long-term	3	23%	1	8%	1	8%	8	62%	13
People	short-term	4	24%	2	12%	3	18%	8	47%	17
	long-term	2	12%	3	18%	4	24%	8	47%	17
Space	short-term	1	20%	3	60%	1	20%	0	0%	5
	long-term	1	20%	3	60%	1	20%	0	0%	5
Total	short-term	18	23%	16	20%	15	19%	31	39%	80
	long-term	13	16%	14	18%	22	28%	31	39%	80

Data Centers

The following organizations have expressed interest in helping with IPY data management. This does not necessarily mean they are funded to do so, but the next step is to match these organizations with the gaps in the table above.

- Arctic and Antarctic Research Institute, Russia
- Australian Antarctic Data Center
- British Antarctic Survey
- Canadian Cryospheric Information Network
- CLIVAR and Carbon Hydrographic Data Office, UCSB
- Danish Meteorological Institute
- Geographic Information Network of Alaska
- Lamont-Doherty Earth Observatory, New York
- National Marine Mammal Laboratory, USA
- Oak Ridge National Laboratory Distributed Active Archive Center, USA
- PANGAEA - Publishing Network for Geoscientific and Environmental Data (AWI/MARUM)
- World Data Center for Biodiversity and Ecology, Denver
- World Data Center for Glaciology and Geocryology, Lanzhou
- World Data Center for Glaciology, Boulder
- World Data Center for Glaciology, Cambridge
- World Data Center for Human Interactions in the Environment, New York
- World Data Center for Marine Environmental Sciences, Bremen
- World Data Center for Marine Geology and Geophysics, Boulder
- World Data Center for Meteorology, Asheville
- World Data Center for Meteorology, Obninsk
- World Data Center for Oceanography, Silver Spring
- World Data Center for Soils, The Netherlands
- World Data Center for Solar-Terrestrial Physics, Boulder

Scientist Support

- Lectures with active help desk at St. Petersburg meeting
- Developing data management checklist
- Considering data integration pilot projects
- *Need national coordinators*
- *Need discipline-specific international coordinators*

Archiving

- A critical need
- Particular issue with physical and biological samples (and transport)
- Some new archives need to be created
- *Need increased awareness and action at the top levels of government.*

Conclusion

We have a long way to go.