

# IPY Data Management

Archival and Data Access Status  
Catalogue Interoperability Status  
WIS-relation

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# Topics

- ▶ Constraints
- ▶ Metadata exchange
- ▶ IPY International Data Management Meeting
- ▶ DAMOCLES Symposium
- ▶ Data collection/transformation
- ▶ WIS

# Constraints

- ▶ Limited funding requires prioritising
  - ▷ IPY Operational Data Coordination did not receive the funding expected, implied a change in time plan/ambitions

# Exchange of metadata

## ▶ Various technologies

### ▷ OAI-PMH

▶ IPY, CEOS WGISS

### ▷ CSW 2.0.2/ISO23950

▶ INSPIRE, WIS, GEOSS, CEOS WGISS CIP

▶ EUMETSAT

## ▶ OAI-PMH

▷ Low cost/easy to implement

▷ Recommended for harvesting metadata by CEOS WGISS Interoperability Handbook 1.1



# OAI-PMH

## ▶ Implemented

### ▷ Supporting GCMD DIF for exchange

#### ▶ Dublin Core

#### ▶ Need to update mapping between GCMD and CF

### ▷ Experience gained with 1 year exchange of interdisciplinary metadata

#### ▶ Run time rules and best practise required

##### ▸ Who can update metadata?

#### ▶ All standards can be interpreted different

### ▷ GCMD harvest DOKIPY once weekly

### ▷ Regular (daily) export/import at 3 sites, to be extended



# CSW

- ▶ TBI through other funding
- ▶ ISO19115 adaptation of metadata
- ▶ Will be tested against EUMETSAT catalogue

# IPY International Data Management Meeting

- ▶ Ottawa September 29-October 1
- ▶ Lessons learned
  - ▷ Keep it simple the most important
  - ▷ Show benefit for scientists
- ▶ Important to utilise existing frameworks
- ▶ Drafting State of Polar Data Report
  - ▷ Recommendations for various groups
- ▶ Decided to establish a demonstration for exchange of metadata

# Demonstration

## ▶ OAI-PMH/GCMD DIF

- ▷ NSIDC
- ▷ Polar Data Catalogue
- ▷ BAS
- ▷ DOKIPY
- ▷ CADIS
- ▷ DAMOCLES
- ▷ GCMD



# DAMOCLES

- ▶ Symposium involving SEARCH scientists
  - ▷ Brussel November 10-12
- ▶ Session on operational forecasting
  - ▷ Huge need for data, gaps identified
- ▶ Increasing understanding of the data problem in the observational community
  - ▶ “My data are not useful in an operational context”
- ▶ Need to coordinate experimental and operational data streams in the Polar regions
  - ▷ Expensive observations

# Remote Sensing data sets

- ▶ Useful dialogue with CEOSS WGISS since last meeting
  - ▷ CIP is CSW, web site updated...
- ▶ Metadata exchange
  - ▷ EUMETSAT has established a CSW interface
    - ▶ Documentation received
  - ▷ Transformations of metadata required
- ▶ Metadata added
  - ▷ Several STG relevant datasets added at generic metadata level

# GTS data

- ▶ Working on cataloguing WMO distributed data
  - ▷ SYNOP, TEMP, DRIBU, ...
  - ▷ Data stored in offline archive
  - ▷ Transformation and addition of proper metadata in preparation
    - ▶ NetCDF/CF for access through THREDDS (OpenDAP and HTTP)
  - ▷ Limited online access to come when transformed
    - ▶ Several models possible

# Ad hoc data streams

## ▶ IMBB

- ▷ Stored

- ▷ Not being handled currently

## ▶ ITP

- ▷ NOAA preparing GTS distribution

- ▷ Mirroring and reformatting WHOI streams

  - ▶ More comprehensive than GTS streams according to WHOI





# ECMWF

- ▶ ERA Interim available offline
- ▶ Rolling archive of forecast data online available
  - ▷ NetCDF
  - ▷ OpeNDAP/WMS
- ▶ ECMWF long term archive

A horizontal banner image with a blue and white color scheme. It features a collage of scenes: a satellite dish on the left, a person with a camera on a tripod in the center, and a person on skis on the right. The background is a light blue sky with faint clouds and a white horizon line.

# METNO

## ▶ HIRLAM NWP

- ▶ Rolling archive online
- ▶ Offline long term archive

## ▶ Arctic OM

- ▶ Rolling archive online
- ▶ Offline long term archive

## ▶ SYNOP

- ▶ Quality controlled data streams

# EUMETSAT Ocean and Sea Ice SAF

- ▶ Products online available
- ▶ Sea Ice products catalogued
- ▶ All High Latitude products to be catalogued in 2010



# IPY-THORPEX

- ▶ Experimental data sets for 2008 experiment available
  - ▷ Lidar on way



# IPY Operational Data Coordination Technology

- ▶ <http://ipycoord.met.no/>
- ▶ METAMOD 2.x DAR -> WIS DCPC
  - ▷ To integrate IPY or scientific needs more seamless with the WMO community
  - ▷ Better support of operational data streams
  - ▷ OAI-PMH (adding CSW/SRU)
  - ▷ Shopping basket in 2010
- ▶ THREDDS Data Server
  - ▷ HTTP/OpeNDAP
  - ▷ Better support for WMO formats
  - ▷ Although trouble experienced with the BUFR format used
- ▶ OGC WMS (focusing at high latitudes)

# WIS-relation

- ▶ METNO continues work to establish an Arctic DCPC
  - ▷ Focus on metadata and shopping basket/push in 2010
- ▶ VGISC as a discussion forum still exist and is used continuously
  - ▷ It is also used for exchange of software/ideas
    - ▶ e.g. metadata generation
      - ▷ Meteo-France Volume C etc representations
      - ▷ DWD metadata generators