YOPP Data Portal

- **Purpose**
  - To provide an overview of datasets relevant to YOPP
  - To provide access to datasets wherever possible
    - Real time data streams
    - Archived data
  - To connect YOPP with WMO Information System
    - Including WMO GTS

- **Physically Distributed Model**
  - One central discovery metadata repository harvesting information from contributing data centres
  - Does not host data (with some exceptions), all data served from host data centre
  - Contributing data centres considered authoritative for information on data sets
  - Standardisation of data documentation and interfaces to data and discovery metadata is required for full integration
PANGAEA serves as a YOPP Data Repository

- YOPP-relevant data flagged in PANGAEA
- Discovery metadata are harvested by the YOPP Data Portal
- Insert ‘YOPP‘ in label field when uploading data
- Use NetCDF/CF (including ACDD elements) for reuse purposes
- Think carefully through segmentation of data, especially modeling data
- Build relations between children and parent of a dataset
- Contact:
  - Øystein Godøy o.godoy[at]met.no
  - Amelie.Driemel[at]awi.de
  - office@polarprediction.net
Other data repositories...

Make sure the repository fulfils technical requirements

i.e. put them in contact with the YOPP data portal to clarify details

Technical documentation

Guidance for data centres contributing to YOPP
YOPP Data Portal Interaction

- Data discovery
  - Harvesting discovery metadata
    - OAI-PMH, (OGC CSW, OpenSearch)
    - Need GCMD Science Keywords
- Data access
  - OPeNDAP
    - NetCDF/CF preferably with ACDD
- Data visualisation
  - OGC WMS
Preparing data

● NetCDF following the Climate and Forecast Convention 1.6 or higher
  − Add global attribute featureType for non gridded data
  − http://cfconventions.org/
● Preferably including Attribute Convention for Dataset Discovery (ACDD)
  − http://wiki.esipfed.org/index.php/Attribute_Convention_for_Data_Discovery_1-3
● Segment data
  − E.g. separate surface, pressure levels and model levels in separate files
    ● Simplifies aggregation and visualisation through OGC WMS if supported
    ● Do not combine station data in files
WMO Year of Polar Prediction

YOPP Super Sites are all IASOA sites

Courtesy of Taneil Uttal
Current Status

- The data portal is up and running
  - Functionality
    - Search
    - Download - single products as is
    - Basket - download multiple products, combined visualisation etc some functionality to be implemented
  - Visualisation
    - Gridded
    - Timeseries – to be deployed
    - Profiles – in progress

- Data input
  - WMO GTS
    - Arctic Resolution 40 weather (fixed/moving) stations and radiosondes dumped to NetCDF/CF served through OPeNDAP – in progress
    - ITP data dump in place
    - Continuation of data download from WHOI, conversion to NetCDF/CF – in progress
  - Guidance documentation
    - Concept document available
    - Interoperability guidelines available
    - Contact form available
    - Issue tracker to be added
Thank you
## YOPP Data Portal

**Number of datasets found:** 15

### Search results

<table>
<thead>
<tr>
<th>Dataset name</th>
<th>Institutions</th>
<th>Project</th>
<th>Abstract</th>
<th>Collection period</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOPP Year Of Polar Prediction</td>
<td>European Centre for Medium Range Weather Forecasts</td>
<td></td>
<td>Enable a significant improvement in environmental prediction capabilities for the polar regions and beyond, by coordinating a period of intensive observing, modelling, verification, user-engagement and education activities. The Year of Polar Prediction (YOPP) is one of the key elements of the Polar Prediction Project. YOPP is scheduled to take place from mid-2017 to mid-2019.</td>
<td>2017-05-01T12:00:00Z to 2019-05-31T12:00:00Z</td>
</tr>
<tr>
<td>met-atmosphere-25km-forecast</td>
<td>Norwegian Meteorological Institute</td>
<td>Public service</td>
<td>Post processed forecasts based on the latest run of the AROME-Arctic model. Parameters like temperature, cloud cover, precipitation and wind have gone through additional post-processing. Hourly data resolution is 2.5km. The forecast is updated 4 times per day. For historical runs see <a href="http://thredds.met.no/thredds/catalog/atmos/rome/25km/catalog.html">http://thredds.met.no/thredds/catalog/atmos/rome/25km/catalog.html</a></td>
<td>2016-02-01T12:00:00Z to 2018-02-01T12:00:00Z</td>
</tr>
</tbody>
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