



The HyMeX database

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The international HyMeX (HYdrological cycle in the Mediterranean EXperiment) project aims at a better understanding and quantification of the hydrological cycle and related processes in the Mediterranean, with emphasis on high-impact weather events, inter-annual to decadal variability of the Mediterranean coupled system, and associated trends in the context of global change. The project includes long term monitoring of environmental parameters, intensive field campaigns, use of satellite data, modelling studies, as well as post event field surveys and value-added products processing.

Therefore HyMeX database incorporates various dataset types from different disciplines, either operational or research. The database relies on a strong collaboration between OMP and IPSL data centres. Field data, which are 1D time series, maps or pictures, are managed by OMP team while gridded data (satellite products, model outputs, radar data...) are managed by IPSL team.

At present, the HyMeX database contains about 150 datasets, including 80 hydrological, meteorological, ocean and soil in situ datasets, 30 radar datasets, 15 satellite products, 15 atmosphere, ocean and land surface model outputs from operational (re-)analysis or forecasts and from research simulations, and 5 post event survey datasets.

The data catalogue complies with international standards (ISO 19115; INSPIRE; Directory Interchange Format; Global Change Master Directory Thesaurus). It includes all the datasets stored in the HyMeX database, as well as external datasets relevant for the project. All the data, whatever the type is, are accessible through a single gateway.

The database website <http://mistrals.sedoo.fr/HyMeX> offers different tools:

- A registration procedure which enables any scientist to accept the data policy and apply for a user database account.
- A search tool to browse the catalogue using thematic, geographic and/or temporal criteria.
- Sorted lists of the datasets by thematic keywords, by measured parameters, by instruments or by platform type.
- Forms to document observations or products that will be provided to the database.
- A shopping-cart web interface to order in situ data files.
- Ftp facilities to access gridded data.

The website will soon propose new facilities. Many in situ datasets have been homogenized and inserted in a relational database yet, in order to enable more accurate data selection and download of different datasets in a shared format. Interoperability between the two data centres will be enhanced by the OpenDAP communication protocol associated with the Thredds catalogue software, which may also be implemented in other data centres that manage data of interest for the HyMeX project.

In order to meet the operational needs for the HyMeX 2012 campaigns, a day-to-day quick look and report display website has been developed too: <http://sop.hymex.org>. It offers a convenient way to browse meteorological conditions and data during the campaign periods.