An Overview of the WMO Information System (WIS)

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WMO and Data Management

The mission of the World Meteorological Organization (WMO) includes facilitating scientific understanding, and the comprehensive exchange of information world wide. Data is collected and exchanged around the clock by the 189 WMO Members--data from sixteen satellites, one hundred moored buoys, six hundred drifting buoys, three thousand aircraft, seven thousand ships, and ten thousand land-based stations.

Global Climate
Observing
System
(GCOS)

Global
Climate
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System
(GCOS)

Global
Ocean
Observing
System
(GCOS)

From the beginning of WMO, timely data exchange has been crucial. Operators have been routing data messages over

international lines using systems dedicated to WMO. This is the WMO Global Telecommunication System (GTS). Now WMO is taking a step beyond managing messages. In committing to WIS, WMO moves to an overarching approach based on managing data and information.

WIS Implementation

In 2003, WMO Members decided that WIS will use international industry standards for protocols, hardware and software; build on the existing WMO GTS, with special attention to a smooth and coordinated transition; provide time-critical data exchange, as well as data access and retrieval services; and support all WMO and related international programmes. The most visible, new facility provided by WIS is the comprehensive Discovery, Access and Retrieval (DAR) catalogue for all of the data, products, and services encompassed by WIS and has been operational since Jan 2012.

WIS Benefits

- WIS enhances the collection of critical data needed to monitor and predict aspects of the environment, including hazards;
- WIS catalogues the full range of data and products, simplifying search and assuring equitable access per WMO policies;
- WIS enhances the availability of time-critical data and products at centres in all nations, ensuring the effective provision of services to their populations and economies;
- WIS opens up WMO's private network (the GTS) to other types of environmental data so that all programmes have stronger infrastructure support; and
- WIS exploits opportunities as they become available with technology innovation.

Cross-cutting Task Team for Integrated Marine Meteorological and Oceanographic Services within WIS (TT-MOWIS)

JCOMM decided in 2015 to establish a Task Team, TT-MOWIS, with the objective to find ways to increase the availability of marine meteorological and oceanographic data in the WIS system. TT-MOWIS will work on:

- Formulating a "Guidance for integrating marine meteorological and oceanographic services within WIS" and having it approved by JCOMM and its mother organizations IOC and WMO;
- Promote the importance of being part of the WIS system to a number of large and important preselected marine datacentres worldwide.