

Task Team on WIGOS Metadata - First Session J. W. (Joe) Swaykos joe.swaykos@noaa.gov

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What I do, Where I do it

- Data Management and Comms Branch Chief
 - National Data Buoy Center
 - National Weather Service
 - National Oceanic and Atmospheric Administration (NOAA)
- Stennis Space Center, Mississippi USA

Personal Background

- 35+ years oceanography and meteorology experience
- US Navy
 - Ocean modeling
 - Acoustics
 - Acoustic propagation forecasting
 - Mid latitude and tropical weather forecasting
- U.S. Integrated Ocean Observing System (US IOOS)
 - Gulf of Mexico Coastal Ocean Observing System (GCOOS)
- NDBC
 - Mission Control Center, information technology

A Glimpse Back

- DBC past participants in JCOMM/DBCP/WIGOS
 - Dr. Richard Crout
 - Naval Research Lab Satellite Applications Branch Chief
 - Stennis Space Center
 - Dr. William Burnett
 - Technical Director Naval Meteorology and Oceanography
 - Stennis Space Center

World Meteorological Organization

A “Fresh” Look

- DBCP 28th session October 2012
 - Guidance on the implementation of WMO Integrated Observing System (WIGOS)
 - Originally established Cg-XVI May-June 2010
 - Resolution 50
 - WIGOS should become operational 2016
 - Recognized the important role of WMO Info Systems
 - Data exchange and discovery
 - Provision of effective standards and practices for data mgmt

DBCP WIGOS Implementation Activities

- Data discovery, delivery, and archival
 - Initial WIGOS metadata standard approval – 2015
 - Initial access to WIGOS metadata through portal – 2013
 - Practices established in manual and guide – 2015
 - Body(s) created or identified for maintenance of metadata standard – 2013
- Responsibilities
 - JCOMM
 - ICG-WIGOS members

JCOMM

- Observations Program Area (OPA)
 - Candyce Clark
- Data Management Program Area (DMPA)
 - Sissy Iona
- Services and Forecasting Systems Program Area (SFSPA)
 - Ming Ji

OPA Priorities

- Among others:
 - Identify other ocean observation communities
 - e.g. gliders (profiling and wave)
 - Develop pilot projects as a means toward the rolling out of the new platforms, sensors, and technologies that will in due course become routine components of the observation network

DMMPA Priorities

- Among others:
 - Updating existing standards/best practices and developing new ones (for data collection, methods of observations, quality control, metadata discovery, data exchange and archive) in the marine community.....in support of the Global Framework for Climate Services (GFCS) and WIGOS implementation
 - Improvement of the instrument/platform metadata management, thus ensuring the high quality of the exchanged marine data is support of climate services
 - Improve the management of instrument/platform metadata

JCOMM Strategy 2013-2016

- Long term:
 - Enhance provision of marine meteorological and oceanographic sensors
 - Coordinate the development, enhancement, and delivery of climate services (Global Framework for Climate Services)
 - Coordinate the enhancement and long term maintenance of an integrated global marine met and ocean observing and data management system within the context of WIGOS/WIS
 - Embracing all maritime members/member states

JCOMM Specific Priority Areas (2013-2016)

- GFCS implementation
- Disaster risk reduction
- WIGOS implementation and capacity development

Metadata Challenges

- Exponential rise in observations (platforms and sensors)
 - Voluntary observing ship (VOS) program
 - Marine mammals and fish
 - Profiling gliders
 - Wave gliders
 - Small, less expensive, disposable sensors
- Growth in commercial vendors
 - e.g. SAIC, Liquid Robotics

Metadata Challenges

- More sensors at non-classic locations and positions
- Climate quality data and metadata
- Improved model forecast accuracies from higher quality metadata
 - In many case we “don’t know” where the data are coming from in terms of 3D positioning

Summarizing

- Metadata is a high interest area for:
 - WMO
 - JCOMM
 - DBCP
 - Climate community
 - The broader met and ocean communities

Concluding

- Thank you for offering me the opportunity to discuss my “fresh” perspectives
- Are there any questions??