WMO Interactions on Ocean Matters

Weather and Disaster Risk Reduction Services Department
Marine Meteorology and Oceanography Division
Intergovernmental organization established in 1950

Coordinates the activities of the National Meteorological and Hydrological Services (NMHSs)

188 Members (182 States + 6 Territories)

Originated from the International Meteorological Organization founded in 1873

Specialized Agency of the United Nations since 1951 for meteorology (weather and climate), operational hydrology and related geophysical sciences.
Goals

- To provide a rapid and free exchange of meteorological and hydrological information
- To ensure the publication of observations and statistics
- To further the application of meteorology to aviation, shipping, water management, agriculture and other human activities
- To encourage research and training in meteorology
- To reduce the impact of weather-, climate- and water-related hazards, through timely and reliable forecasts and warnings
- To prevent and mitigate natural disasters
In situ and space Observations

Operational Ocean Forecasting System (GDPFS for Ocean) (e.g., Waves, Storm Surges, Sea Ice, SST, ocean circ., etc.)

Ocean Climate (e.g., Waves, Storm Surges, Sea Ice, SST, etc.)

IOC (IOC/WMO/UNEP GOOS)

IMO and IHO

Services (e.g., MSI/GMDSS, MPERSS, SAR, DRR, etc.)

Users

ICS
Intertanko
Intercargo
Oil and Gas Industry
Fisheries
Etc.

IMO and IHO IOC

Users

IOC/WMO/UNEP GOOS

WMO Interactions on Ocean Matters, November 2010
Marine Meteorological and Oceanographic Services

- Needs of cooperation between meteorology, oceanography, hydrography
- Community welfare, socio-economic impacts, hazard mitigation, climate change, marine environment….
- National and international cooperation essential – IOC, WMO, IHO, IMO, met and ocean agencies
Initial Global Ocean Observing System for Climate

Total in situ networks

November 2010

- Surface measurements from volunteer ships (VOSclim)
  - 200 ships in pilot project
- Global drifting surface buoy array
  - 87% completion
  - 5° resolution array: 1250 floats
- Tide gauge network (CCOS subset of GLOSS core network)
  - 100% completion
  - 170 real-time reporting gauges
- HOPE surface temperature section network
  - 59% completion
  - 51 lines occupied
- Profiling float network (Argo)
  - 81% completion
  - 3° resolution array: 3000 floats
- Repeat hydrography and carbon inventory
  - 100% completion
  - Full ocean survey in 10 years

Milestones
- Drifters 2005
- Argo 2007

Reference time series
- 58 sites
- 29 moorings planned
- 119 moorings planned

Global reference mooring network

Global tropical moored buoy network

48% 34% 73% 62%
Services Achievements

- Guide to Storm Surge Forecasting
- Development of a storm surge and waves watch scheme, and inclusion of marine meteorological elements in the SWFDP
- Pilot project to model and forecast coastal inundation from combined oceanographic and hydrologic events
- Symposium on climate change and the offshore oil and gas industry
- Delivery of a range of climate data products and services.
Services Achievements

• Work with IHO to develop and display ice objects in shipboard electronic display systems, which may also provide a basis for the delivery of meteorological information to ships in graphical form

• Ongoing enhancements to the marine broadcast system for the GMDSS, and the implementation of five new Metareas in the Arctic, through close collaboration with IMO and IHO

• User feedback on the quality, timeliness and utility of maritime safety services

• Several major forecast centres are now making a range of marine forecast products freely available on the web, to support developing countries, together with the provision of supporting capacity building
Challenges

• To serve communities in:
  – Maritime safety, search and rescue, navigation, polar regions; offshore industry
  – Coastal safety and management; recreation; marine environmental protection; fisheries
  – Climate research, forecasting and adaptation
  – Marine accident response and emergency support
• Interface with the maritime services user community
• Quality management system
Limits of METAREAs

* The GMDSS is under implementation for the Arctic METAREAs and is expected to be fully operational by 2010/11
HOME PAGE

The operational JCOMM official web site provides the marine weather information broadcast via Inmarsat-C SafetyNET by all National Meteorological Services (NMS) appointed as Issuing Services within the framework of the WMO Marine Briefing broadcast by NAVTEX is also included.

Caution: The Internet is not part of the Maritime Safety Information's open and warning information. Access to the Site may be interrupted or delayed from sources, Inmarsat SafetyNET or international NAVTEX services, for more.

Links to Issuing Services and to some Preparation Services web sites are also.

Mariners are welcome to use information presented in this web site. In cases NMSs shall be given.

This JCOMM website is developed and maintained by Meteo-France. It will be.

Transmission schedules

FQNT50 LFW 120855

A
SEURITE
Weather bulletin for METAREA 2, METEO-FRANCE, Toulouse, Monday 12 February 2007 at 09 UTC.

- Wind speed in BEAUVFT SCALE - Sea : Total significant -
- Please be aware, wind gusts can be a further 40 percent stronger than the averages given here, and maximum waves may be up to twice the significant height.

Part 1 : WARNING : 96

Part 2 : General synopsis, Monday 12 at 00 UTC

Low 974 52N10W, moving east, expected 978 over east of England by 12/12 UTC.
Low 989 42N40W, moving northeast and deepening, expected 972 48N32W by 12/12 UTC, then 988 55N28W by 13/12 UTC.

7N10W 4N20W...TO THE EQUATOR AT 30W...154W...INTO NORTHEASTERN BRAZIL AT 3548W.

Part 3 : Area forecasts to Tuesday 13 at 12 UTC

FARADAY :
Cyclonic 8 to 10, occasionally 11, becoming Westerly 7 to 9 soon, then backing southwest 5 or 6 later. Severe gusts. High. Thundery rain or squalls.
Coastal Inundation Forecasting Demonstration Project (CIFDP)

- Regional Specialized Meteorological Centres
- International Charter "Space and Major Disasters" (activated through Civil Protection Authorities or other selected Agencies)
- Service Provider (e.g. UNOSAT)
- National Meteorological and Hydrological Services
  - High Resolution Images
  - Forecasts
- Users
  - Disaster Management and Civil Protection Authorities
  - International and Regional Humanitarian Agencies
- Specialized Products
  - Forecasts and Warnings
  - Products based on High Resolution Images and Forecasts
- Requirements
- High Resolution Images and forecasts

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Capacity Development

- JCOMM is jointly sponsored by the WMO and the UNESCO/IOC and therefore its capacity-building/development activities must operate within, and draw upon, the overall principles of its governing bodies.

- WMO and UNESCO/IOC assist with the development of partnerships with potential donor agencies and with links with other UN and other relevant regional and global organizations.

- The activities also must be compatible and work with similar efforts in other WMO and UNESCO/IOC Programmes, including the requirements of the WMO Regional Associations and GOOS Regional Alliances (GRAs).
Gracias!

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