

# General introduction to WMO's Marine Service activities

## D/WDS

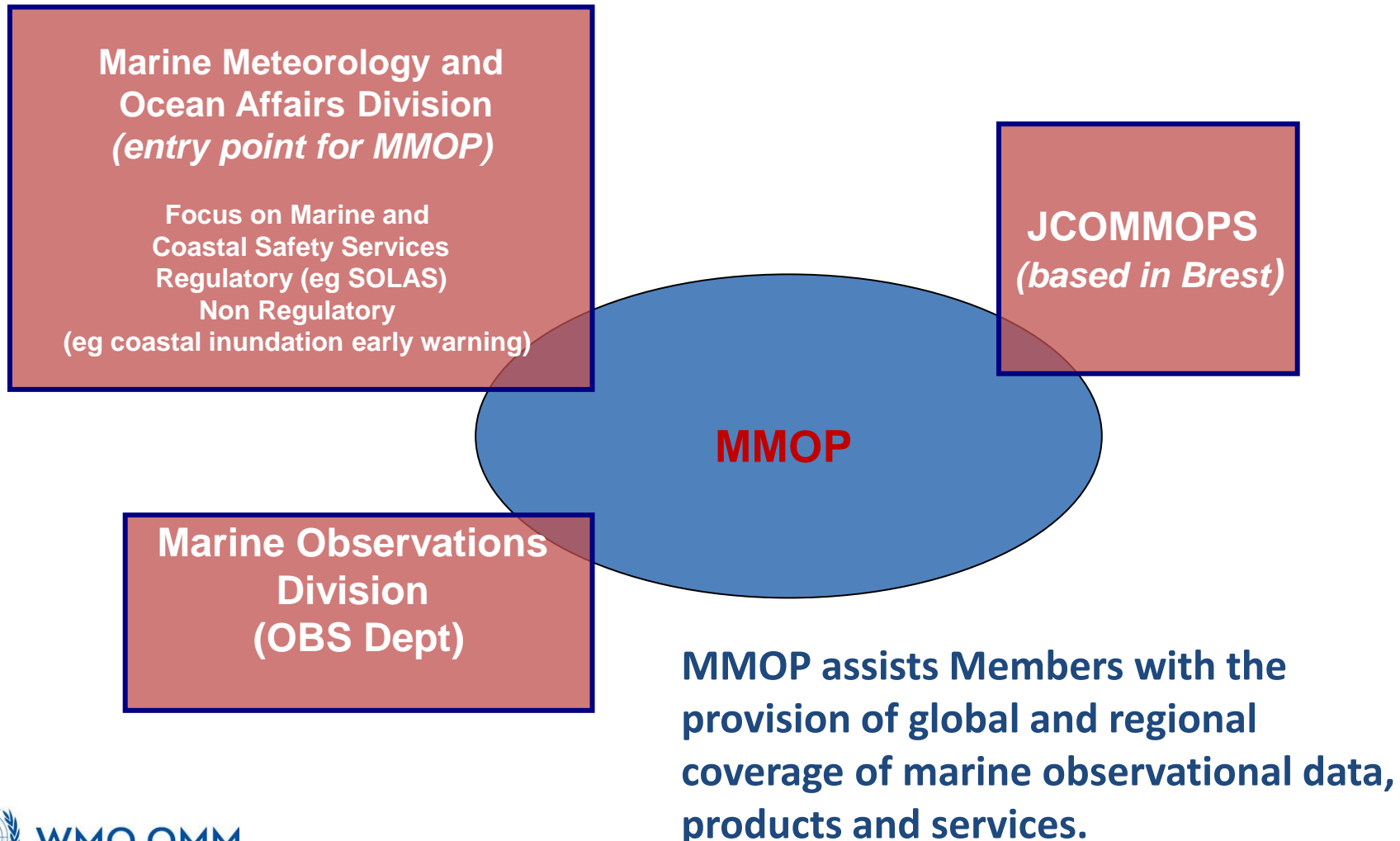


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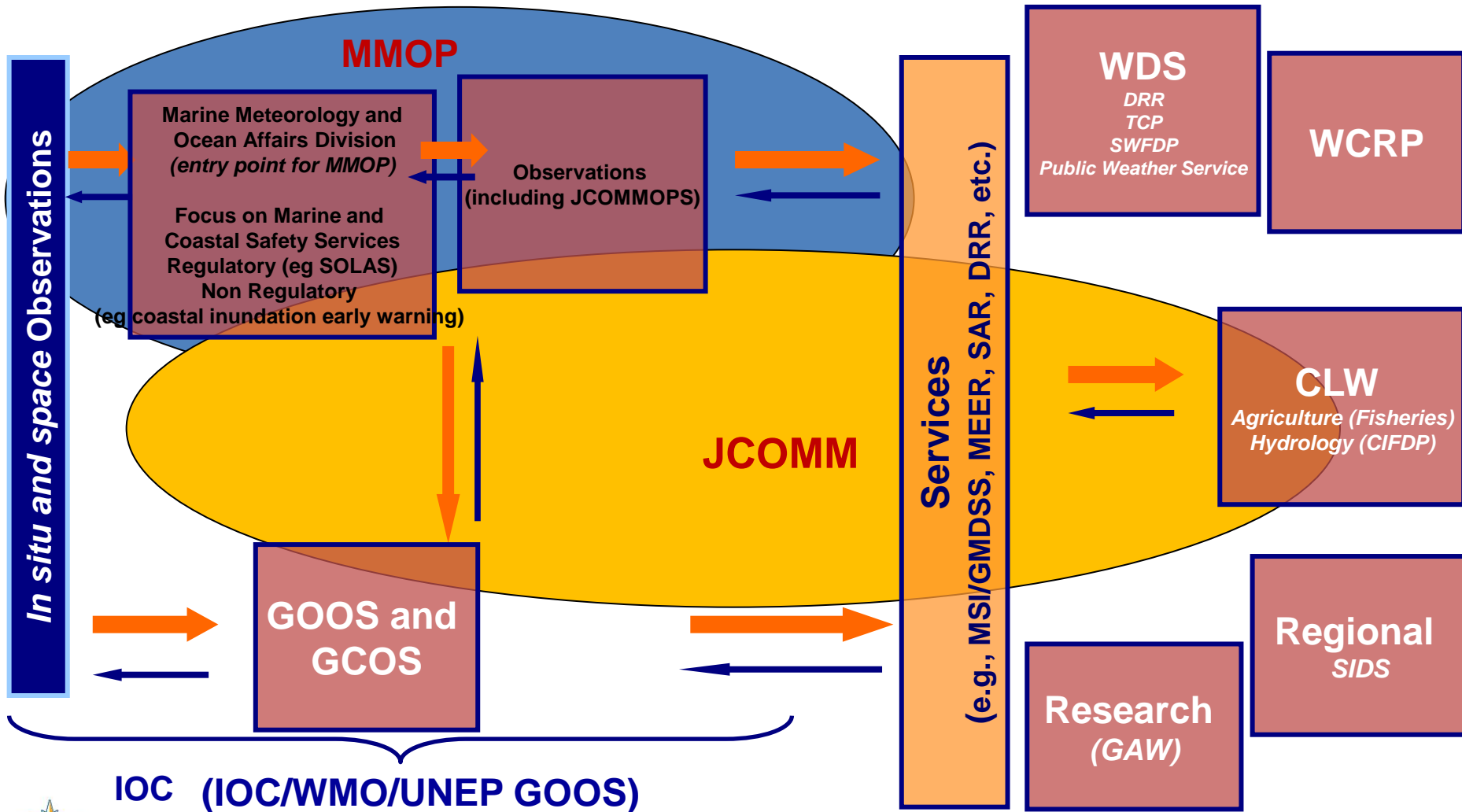
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# WMO Marine Meteorology & Oceanography Programme (MMOP)



# Marine Affairs at WMO



# Department of Weather and Disaster Risk Reduction Services (WDS)

- Supports Members in the provision of services to reduce the risk and impact of disasters

- 6 Divisions:

- Services Delivery
- Disaster Risk Reductions Service
- Global Data Processing Forecasting System
- Tropical Cyclone
- **Marine Meteorology and Ocean Affairs**
- Aeronautical Meteorological Program

supporting marine activities

**Marine Meteorology and  
Ocean Affairs Division**  
*(entry point for MMOP)*

Focus on Marine and  
Coastal Safety Services  
Regulatory (eg SOLAS)  
Non Regulatory  
(eg coastal inundation early warning)

# Marine Services via the MMO Division:

- Services for Safety of property and lives at sea
  - SOLAS (Safety of Lives at Sea Convention, 1974): International Maritime Organisation (IMO) leads. Contracting Governments are obliged to provide met information and warnings to shipping for the safety of Marine Transportation.
  - WMO's obligation to SOLAS is to coordinate (with IMO) the meteorological warnings through the IMO-WMO World-Wide Met-Ocean Information & Warnings Service; whilst supporting the capability of National Met Services to issue broadcasts for the Global Maritime Distress and Safety System (GMDSS). In particular, through development of METAREAs and collaboration with NAVAREAs.
  - Marine Environmental Activities
  - Arctic code and arctic marine forecasting and services
  - Supporting improved ocean analyses and forecasting products, especially for safety at sea
  - QMS and Competency in marine weather forecasting (approved Cg-17)



# MSI: METAREAS



\* The GMDSS is under implementation for the Arctic METAREAS and is expected to be fully operational by 2010/11

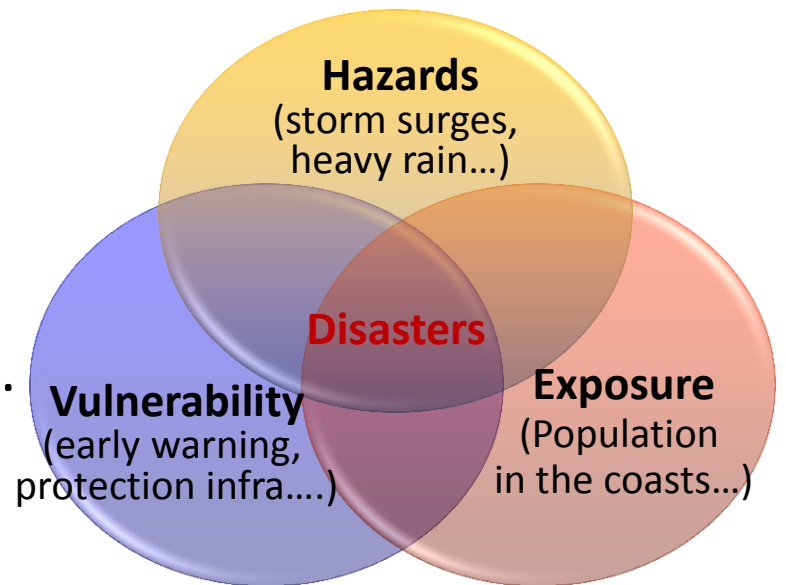


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WMO Metareas align with IMO Navareas

# Exposure to coastal inundation is large and growing

- Population is attracted to coasts by an abundance of local resources
  - Growing coastal population
  - Urbanising coastal zone
  - Tourism, recreation, retirement...
- In many parts of the world, the population is directly exposed to the coastal hazards and this will increase with Climate Change and Sea Level Rise.
- A reactive approach to adaptation increase the vulnerability.



**Disasters are more likely when Hazards and exposed population overlap with Vulnerability.**

# Marine Services via the MMO Division:

- Services for reducing the risk and impact of hazards and disasters in the coastal zones
  - Coastal Inundation Forecasting Demonstration Projects (CIFDP) – joint between JCOMM and WMO's Technical Commission for Hydrology (CHy):
    - improving capacity of met services for early warning of coastal flooding from multiples sources (eg ocean, river floods)
    - 4 countries: Fiji, Indonesia, Bangladesh, Dominican Republic.
  - Other Coastal inundation activities (eg storm surge training in met services combined with WMO Tropical Cyclone Programme)
  - Capacity development activities for public awareness





# Supporting Services Area of JCOMM

- JCOMM has 3 Programme Areas (Services, Observations and Data Management)
- MMO Division supports the Services Area: with several expert teams, providing technical advice to ensure the provision of marine safety services
- Services Expert Teams focus on:
  - Maritime Safety Services
  - Waves and Coastal Hazards Forecasting
  - Operational Ocean Forecasting
  - Services and forecasting in Sea-Ice (eg Arctic Polar Code)

# Other Marine Services in WDS

- Service Delivery – supports the delivery of marine services
  - Guidance on Impact based forecasting and warning services;
  - Implementation of WMO Strategy for Service Delivery
- DRR Service - supporting the development of Multi-Hazard Early Warning Systems (eg CIFDP); Hazard Identification and Global Meteo Alarm System (GMAS), for example, through:
  - IN-MHEWS (partners including IOC/UNESCO)
  - MHEWS Conference (Co-organizer: IOC )
- GDPFS – Global Data Processing and Forecasting System
  - Developing a Marine Aspect to ensure a seamless GDPFS
  - Severe Weather Forecasting Demonstration Project (SWFDP)
  - ERAs: Emergency Response Activities, collaborate with IAEA through the assistance made by 10 WMO RSMCs/ERA
- Tropical Cyclone – focus on tropical cyclone prone regions where impacts are on coastal populations.
- Aeronautic Meteorology Service Division through:
  - Implementation of WMO Quality Management Framework,
  - Coordination in the field of the development of WMO Integrated Services on Integrated Transportation including marine transportation aspect.

# Thank you



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