



WMO

World Meteorological Organization

Working together in weather, climate and water

Fourth International PMO Workshop & support to
global ocean observations using ship logistics
Orlando, Florida, USA, 8-10 December 2010

Recommendations from the workshop



Outline

- Recommendations from PMO-IV
- Advisory to PMOs
- Recommendations in terms of ship support to global ocean observations

PMO-IV Recommendations 1/5

- Develop a web site where the names of ships wanting to join VOS (including de-recruited ships) can be advertised so the nearest PMO can recruit the ship
- Review the classification of all ships in national VOS fleets to ensure that all ships are assigned to the correct VOS Class
- Work towards upgrading as many ships as possible to VOSclim Class standard
- US to upgrade SEAS software so that it is VOSclim compliant (or use TurboWin)
- Target existing ships which are doing only one observation per day to increase their daily reporting frequency



PMO-IV Recommendations 2/5

- Get existing VOS to report along their total route, including coastal voyages and coastal transits
- Encourage countries with no database to use the WMO pub 47 metadata tools
- Submit national VOS Pub47 metadata to WMO monthly or at least quarterly
- Use the Foreign VOS Inspection Form



PMO-IV Recommendations 3/5

- Post inspection details on existing international VOS databases
- All countries to monitor the quality and quantity of their Observations using the QC monitoring tools
- Make use of the tools and resources on the VOS web site
- WMO to write to all NMS which receive and disseminate Obs from LES to request that these NMS produce intermediate and non-standard ship bulletins for all geographical areas, so that non-synoptic (asynoptic) Obs are captured and sent on GTS



PMO-IV Recommendations 4/5

- Promote PMO international exchange programmes
- Install a Drifting Buoy as an autonomous AWS on ships to provide a low cost, quality observation solution
- Avoid over tasking the same ships repeatedly for ocean deployments
- Use PMOs to recruit ships so as to avoid multiple people communicating with the shipping staff and company



PMO-IV Recommendations 5/5

- Encourage SOOP ships to do VOS observations as well
- Explore virtual PMO workshops
- Approach insurance companies and advertise programme; liability issues; benefits in terms of maritime safety
- Approach maritime routing companies who also collect ocean observations



Advisory to PMOs

- Beware that migration to BUFR is to be completed by 2012 and that some metadata will need to be collected and assembled for distribution



Ship support to global ocean observations recommendations 1/2

- Create a unique database, or a web page, with all available links to research and cargo ship schedules
- Have an updated list of PMOs from around the globe, with their pictures, email, phone numbers, addresses, etc, all their contact information
- Have and maintain an updated list of ships that are being served by each PMO
- Continue having the SOOP community involved in collaboration with the international VOS and PMO communities



Ship support to global ocean observations recommendations 2/2

- Encourage international PMOs to brief their IOC representatives on work being done on ocean observations and equipment deployment
- Create awareness of international law, restrictions for deployment of instruments, observations, and data distribution
- Support the design of smaller Argo floats that can be easily deployed by the crew of a ship
- Enhance the international participation in SOOP
- Include drifter and float deployments in VOS log sheets

