

The Observing System Monitoring Center (OSMC)

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Project Summary

The Observing System Monitoring Center (OSMC) is an information gathering, decision support, and display system for NOAA's Climate Observations and Monitoring (COM) Program. The OSMC helps COM to ensure that NOAA meets the long-term observational requirements of forecast and modeling centers, international research programs, major scientific assessments, and decision-makers. To monitor the full suite of ocean sensors the OSMC ingests real time ocean observations carried on the GTS as well as (increasingly) real time and delayed mode observations available through Internet web services and dedicated data assembly systems.

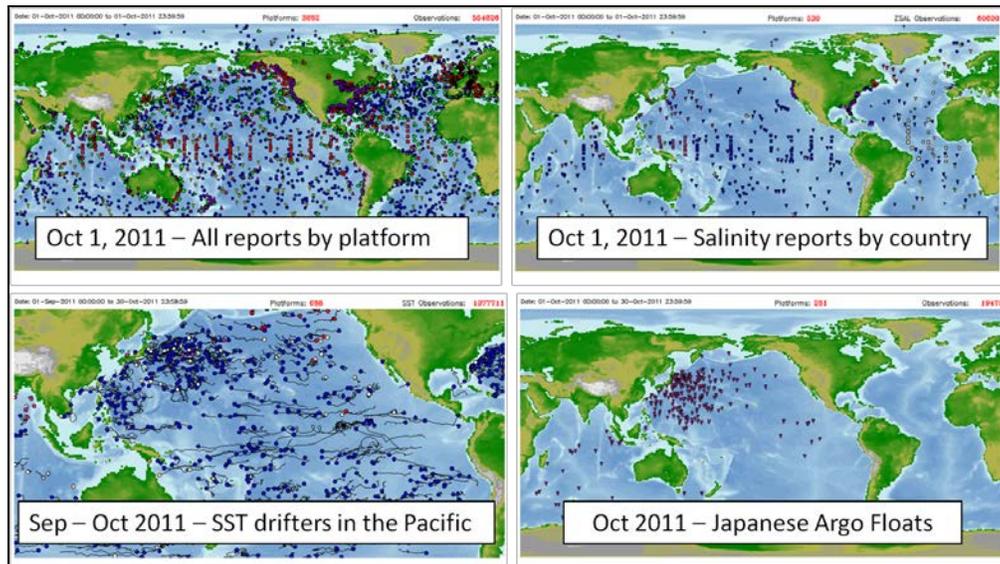


Figure 1. Several illustrations showing the status of the global observing system

The OSMC permits the many “networks” of *in situ* ocean observing platforms -- ships, surface floats, profiling floats, tide gauges, etc. -- to be viewed as a single system. It provides tools to help managers to assess the contributions of different countries and programs, and tools to help scientists track the effectiveness of *in situ* observations for assessing the state of measured parameters – temperature, salinity, etc. The OSMC is also a key component in guiding COM data integration strategies. It provides a single, simple portal for access to the full range of observations from the global ocean observing system, both real-time and delayed mode data. It integrates US coastal (IOOS) and global (GOOS) observations. It provides a project-level liaison with NOAA’s data centers to facilitate archival of observations. Increasingly it integrates *in situ* observations with gridded climate products – climatologies, state estimations and model

forecasts – and will play a key role in the fusion of observations, products and climate forecast models in support of such activities as IPCC AR5/CMIP5.

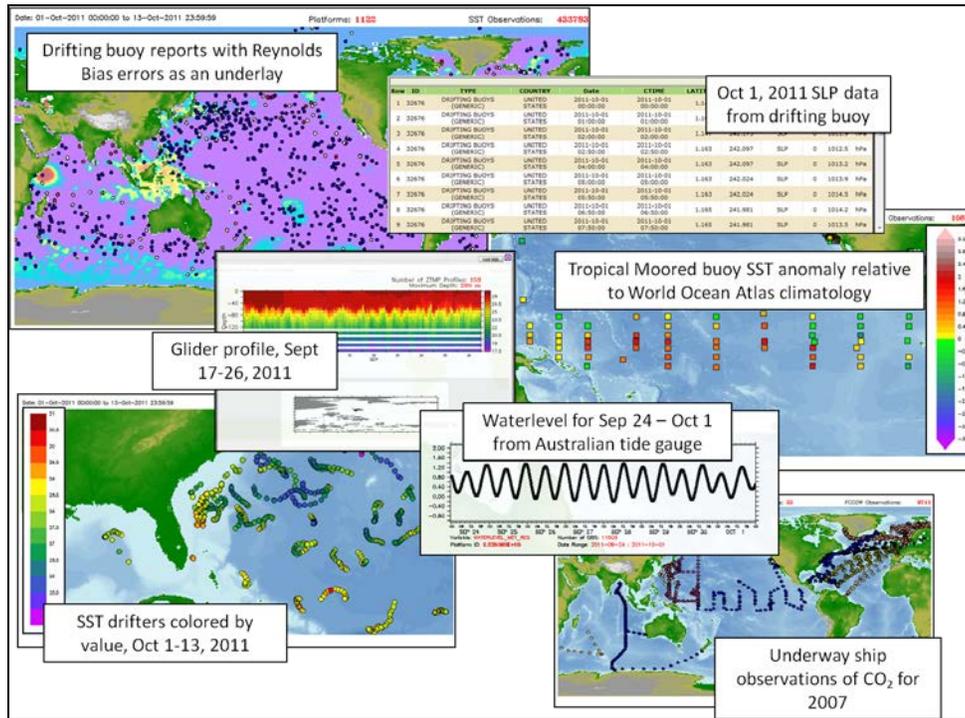


Figure 2. A sample of the drill down products available from the OSMC

Through the OSMC, a scientist or manager can “drill down” to obtain a detailed look at a particular platform and the measurements that the sensors it carries have made as shown in Figure 2, or can assess the long term trends in observing system coverage with analyses such as Figure 3.

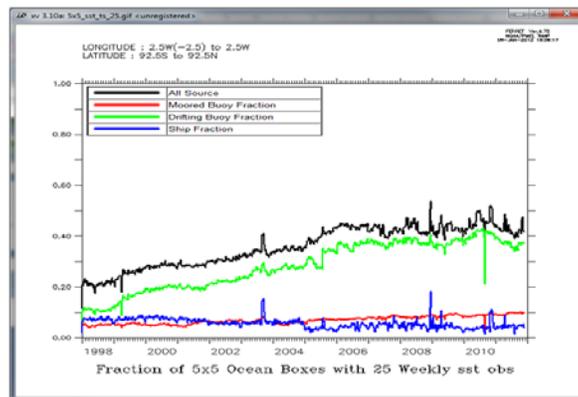


Figure 3. Time series showing progress implementing the ocean observing system