



# OceanSITES

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# OceanSITES

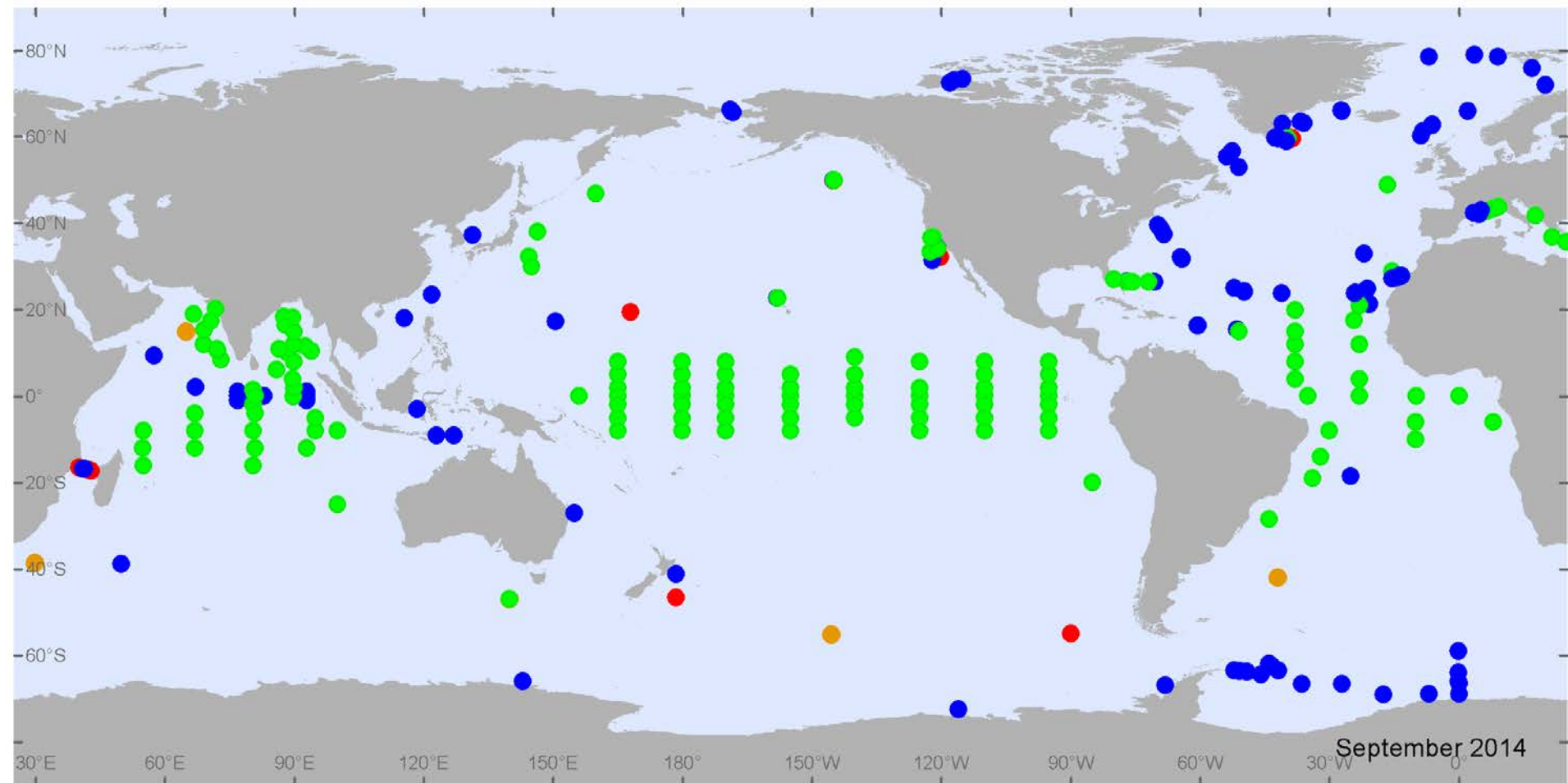
- A worldwide system of long-term, deepwater reference stations measuring dozens of variables and monitoring the full depth of the ocean, from air-sea interactions down to 5,000 meters.
- Seeks to fill a gap that existed for the coordination and data management of the time series component of the global ocean observing system, providing a home for the otherwise isolated and independently operated sites around the globe
- OceanSITES continuously invites and encourages all operators of sustained open-ocean time series at fixed sites to participate in the project, on the condition that the data will be shared freely and publicly



# Components

- Global Network of nearly 200 reference sites in the deep-ocean
- An additional 72 standard meteorological sites (TAO, RAMA, PIRATA).
- Goal - to have data freely available (in real-time, if possible).

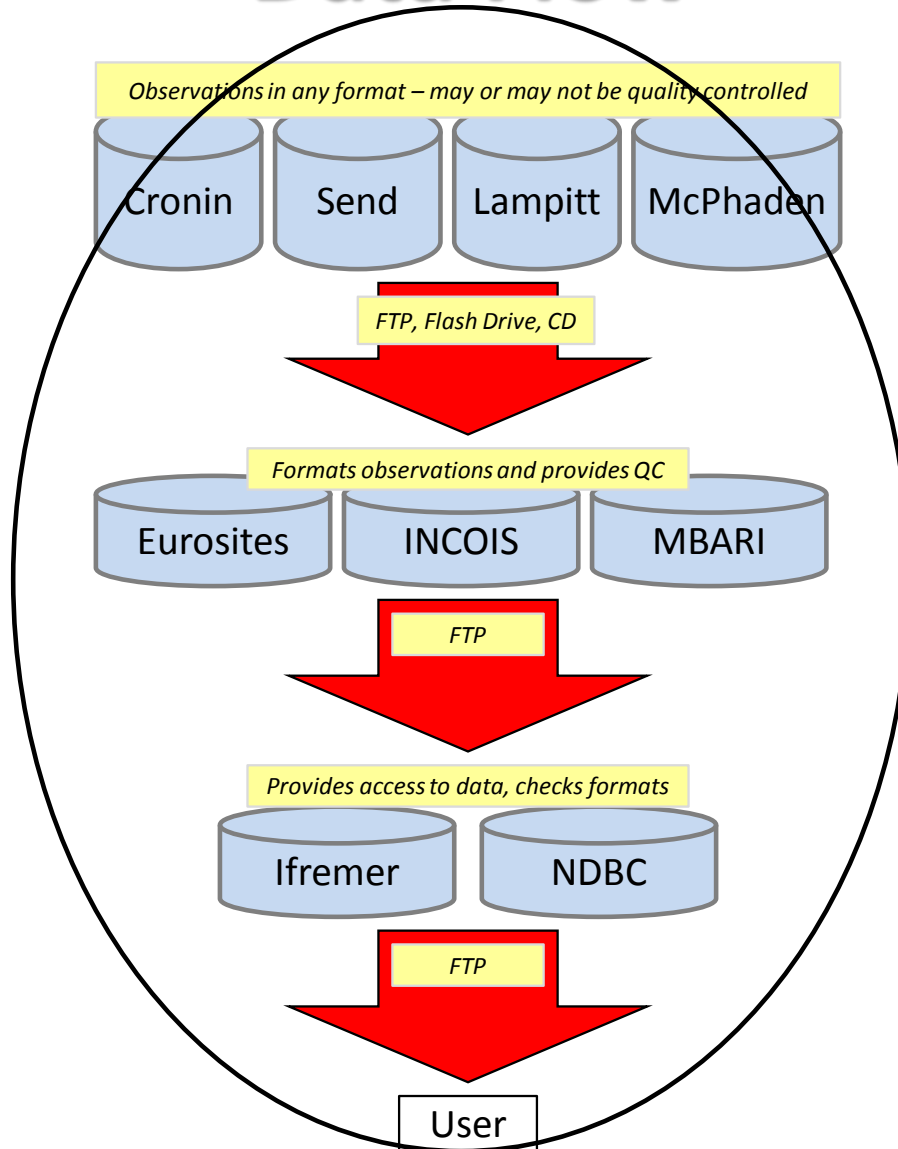




● Real-Time Data (148)
 ● Delayed-Mode Data (136)
 ● Planned (7)
 ● Discontinued (10)

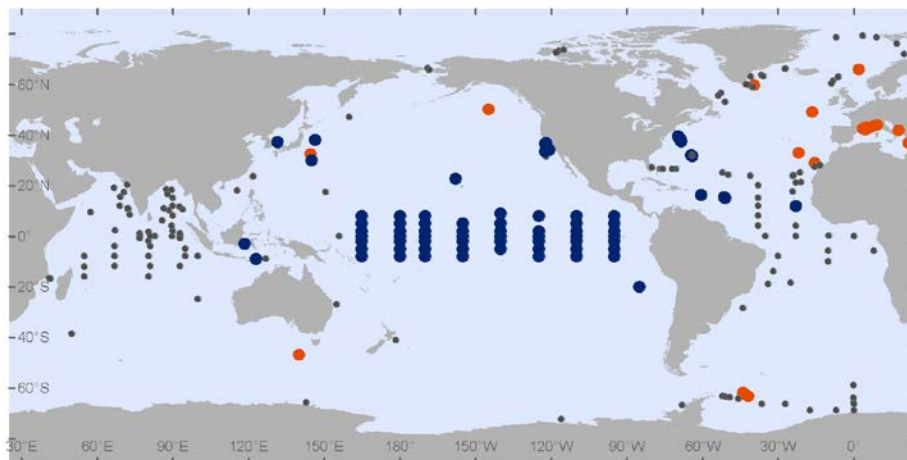


# Data Flow



# Status

- Nearly 200 registered OceanSITES
- 82 sites transmitting data in real-time to a local or regional data centre
- Currently only around 30% (~60) of these sites are submitting data to one of the Global Data Assembly Centers (GDAC) in this format



GDAC Data • IFREMER (21) • NOAA/NDBC (79) • No GDAC (184)



# Data Management

- OceanSITES has an active Data Management Team (DMT) that works with site PIs to share data in a common NetCDF format.
- The format specifications have been developed by the DMT in collaboration with the Steering Committee and Exec Board.
- The DMT worked on version 1.3 of the Data Format Reference Manual (formerly User's Guide). The new Reference Manual was published in June 2014 and the community is encouraged to follow the new guide when preparing their data.



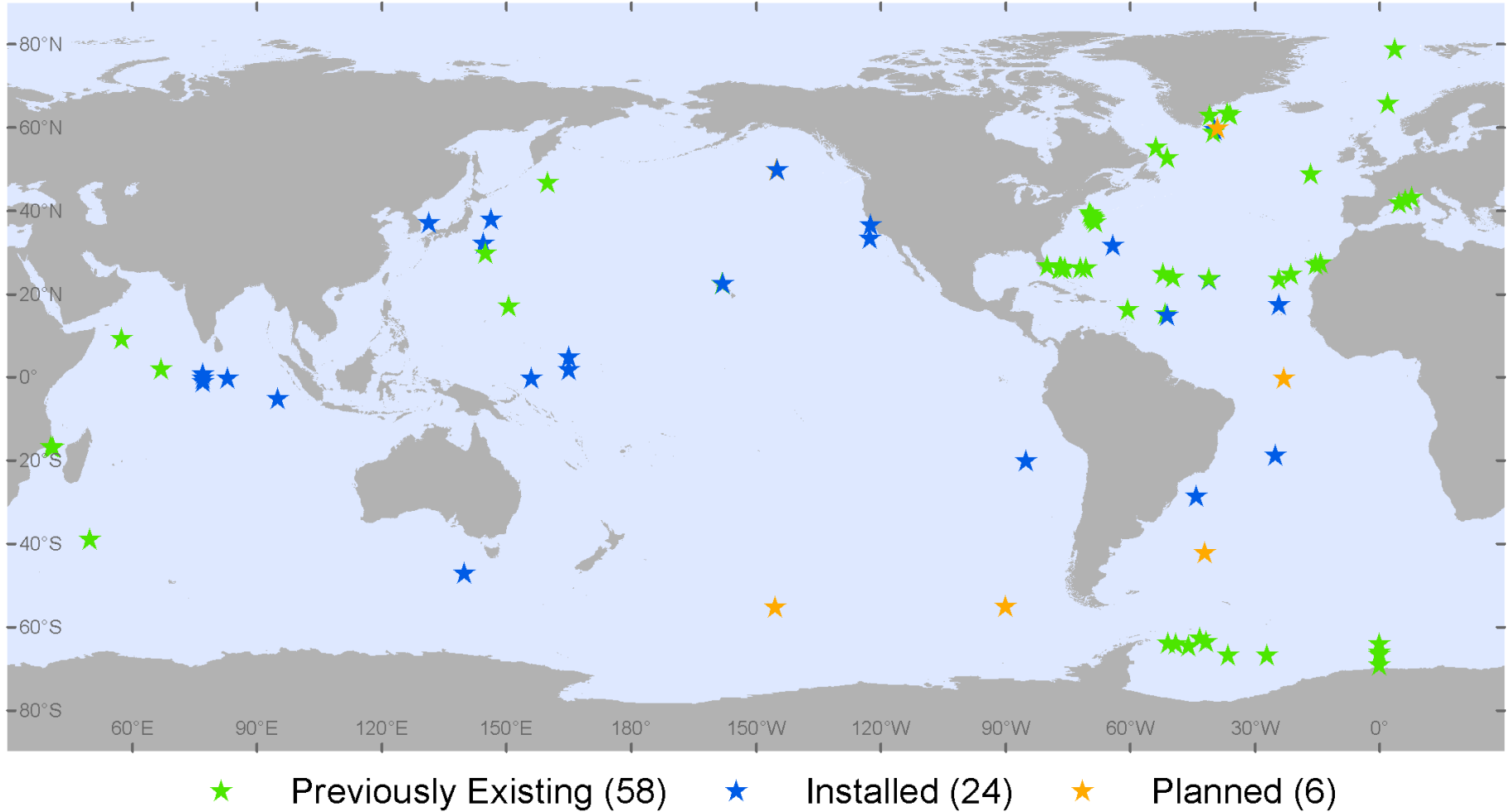
# Deep-Ocean T/S Sensors

- In late 2011, the team took on and added a challenge
- The challenge was to make use of the many existing OceanSITES platforms in deep water to make an "instant" contribution towards the gap in deep-ocean observations by adding a deep-ocean microcat (T/S sensor)
- OceanSITES at over 50 sites around the world already carry deep temperature/salinity (T/S) sensors and OceanSITES members had a goal to deploy another 50, which requires 50 sensors for the initial deployments and another 50 for swapping out and calibrations.
- PIs have pledged to add such sensors to their existing moorings and as of August 2014 another 24 sensors were installed with an additional 6 are planned in the coming year(s).
- In addition to the sensor contribution by PIs, OceanSITES has a pool of matching sensor for the swap-outs via donations from institutions, agencies and companies. The community has nearly 50 instruments in the "pool" for exchanging and adding to sites around the world thanks to a number of generous donations but in particular, the donation of 22 instruments by the UK National Oceanography Centre in Southampton





# Deep-Ocean T/S Sensors



# Future Goals

- In November 2014, OceanSITES will hold a meeting in Recife Brazil jointly with the Tropical Atlantic Variability/PIRATA and the Brazil-European Union (EU) Dialogues in Marine Research Meeting.
- The OceanSITES Executive Committee will continue to meet regularly as will the Data Management Team.
- The DMT is still working on several new documents that will be published to assist user's of OceanSITES data and possible new contributors: 1) a new document entitled "How to Become an OceanSITES Member", 2) a new document entitled "How to work with the GDACs", 3) a new document entitled "How to Access OceanSITES Data".
- Finalization of concrete metrics for OceanSITES which the executive committee has been working. The 3 disciplines will have small teams to write White papers
  - 1) Air sea flux
  - 2) Physical time-series (ocean circulation, deep changes)
  - 3) Biogeochemical and ecosystem



# Future Goals (cont)

- Formalization of the processes and procedures for managing the deep ocean temperature/salinity program, and establishment of the next set of sites to be instrumented.
- Review and finalization of new products and indicators.
- Publish the updated *Minimalist OceanSITES Interdisciplinary Network (MOIN)* document (backbone network of minimalist identical multi-disciplinary sites) and hold a MOIN Workshop in early 2014
- Increase data holdings at the OceanSITES GDACs
- Finalization of OceanSITES data archive with NOAA's National Oceanographic Data Center (NODC). Formal archive to be functioning in early 2015
- Participation in the Partnership for the Observation of the Global Ocean (POGO) meeting in Tenerife, Spain in January.
- Welcome a new Project Office, Ms. Champika Gallage. Ms. Gallage will join the JCOMMOPS team from Environment Canada. She will start in October 2014 and be stationed with the rest of JCOMMOPS in Brest, France.

