JCOMM
Observing Programme
Support Centre

GO-SHIP International Planning Meeting

Portland OR, Febr 21 2010

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Aims of this talk

- Presentation of JCOMMOPS Infrastructure
- JCOMMOPS Products and Services
- Examples : Argo/DBCP/oceanSITES structure and development
- JCOMMOPS & GO-SHIP

Background

- Sustained global ocean observations are necessary
  - For ocean and climate research
  - Global environmental monitoring
- Ocean observation programmes are coordinated internationally through dedicated panels and steering teams, and implemented nationally.
- Endorsement by the Global Ocean Observing System (**GOOS**), the Global Climate Observing System (**GCOS**) and the Joint WMO-IOC Commission for Oceanography and Marine Meteorology (**JCOMM**).
- **Many players :** funding agencies, program managers or principal investigators, platform operators, data users, satellite data telecommunication providers, instrument manufacturers, data centres, etc.
- JCOMMOPS was developed (JCOMM 1st session (2001)) to provide support in planning, implementation, monitoring, assessment, facilitating international cooperation

JCOMM

- JCOMM Observation Programme Areas
  - Data Buoy Cooperation Panel (DBCP)
    - Drifting and moored buoys (SVP, TAO)
  - Ship Observations Team (SOT)
    - SOOP, VOS, ASAP
  - Global Sea Level Observing System (GLOSS)
- JCOMM related programmes
  - Argo, OceanSites, IOCCP, Go-Ship

JCOMM Observing Platforms Support

- JCOMMOPS is involved with the implementation of the main global *in-situ* observing systems, including:
  - **DBCP (data buoy cooperation pannel):** Drifting and moored buoys in the high seas and tropical moorings
  - **SOT (ship observations team) :** XBTs, TSGs, atmospheric soundings, meteorological observations
  - **Argo:** Profiling floats
  - **OceanSITES:** Deep ocean time-series reference stations

JCOMMOPS is now "firmly established as a major support facility for operational ocean observing system."

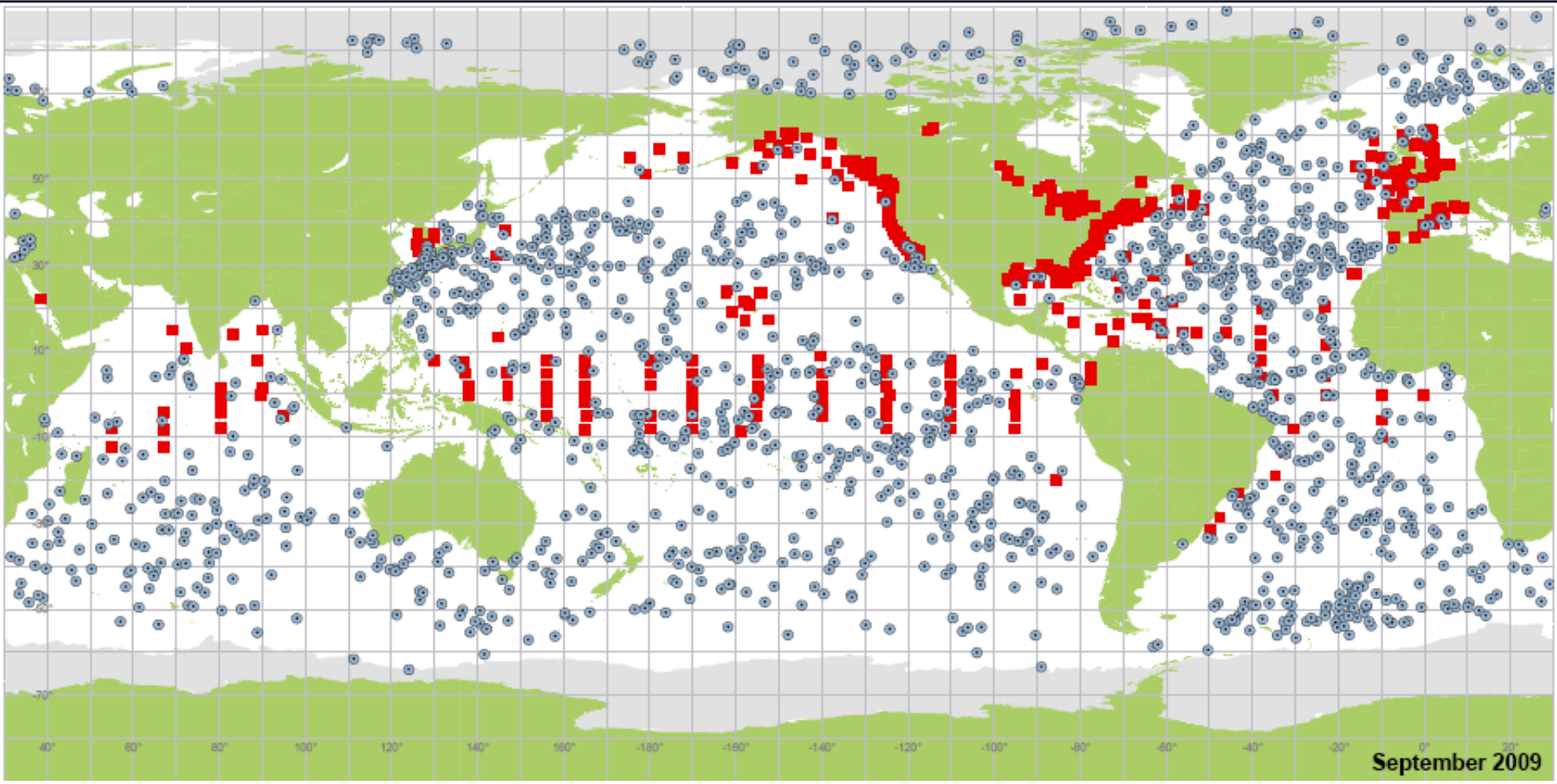
JCOMM co-presidents, 2009

JCOMMOPS mission

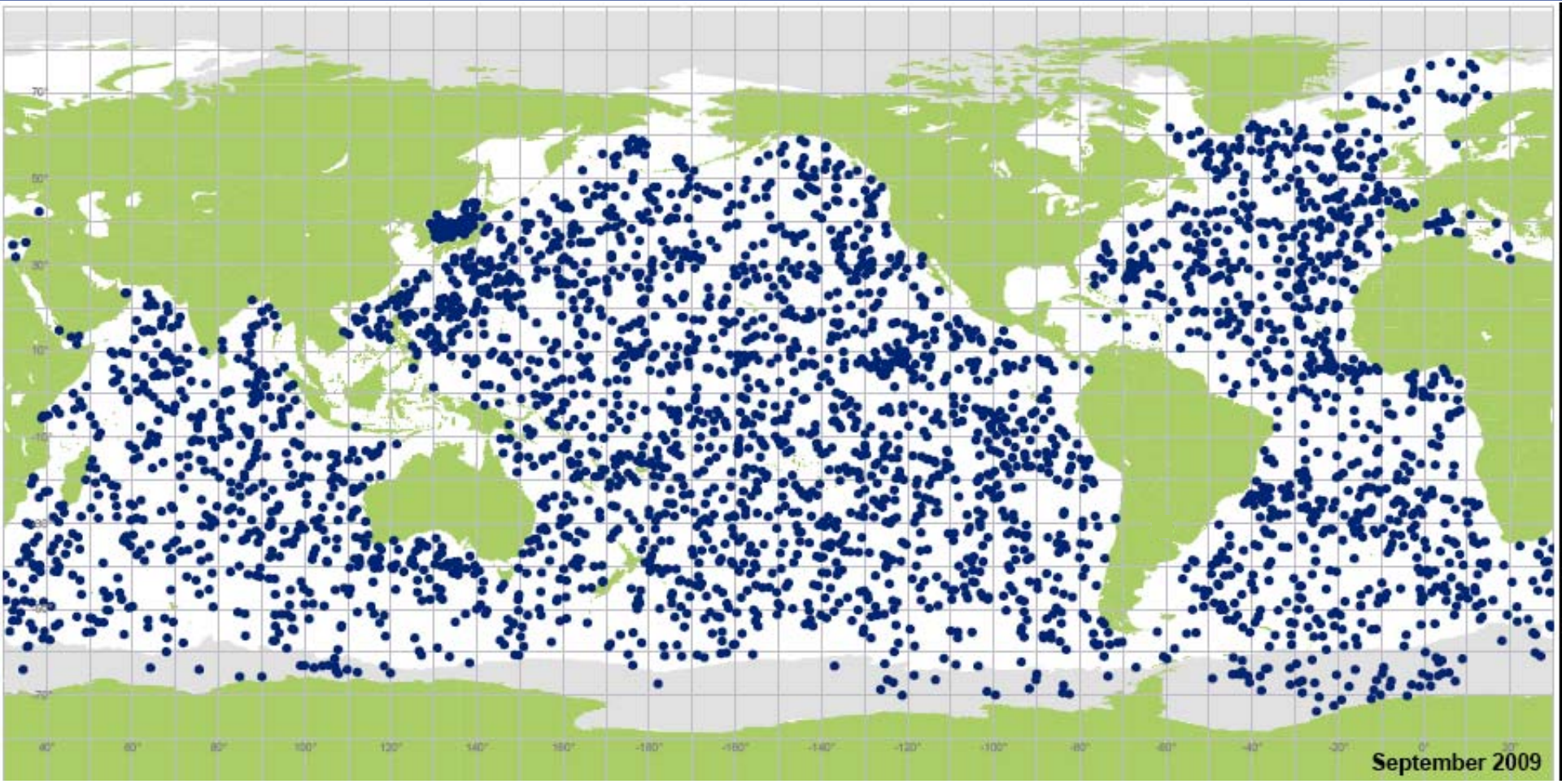
The **JCOMM** (In-situ) **O**bserving **P**rogramme **S**upport Centre, on behalf of JCOMM, aims to:

- **monitor** and **evaluate** the performance of the networks
- act as a **clearing house** and **focal point** on all programme aspects
- provide up to date, comprehensive information on status of observing system
- assist in **data distribution** on the Internet and GTS
- encourage **cooperation** between communities and member states
- relay user **feedback on data quality** to platform operators
- provide **technical assistance** and **user support worldwide**
- develop **synergies** between observing systems
- assist in the **planning**, **implementation** and **operations** of the observing systems

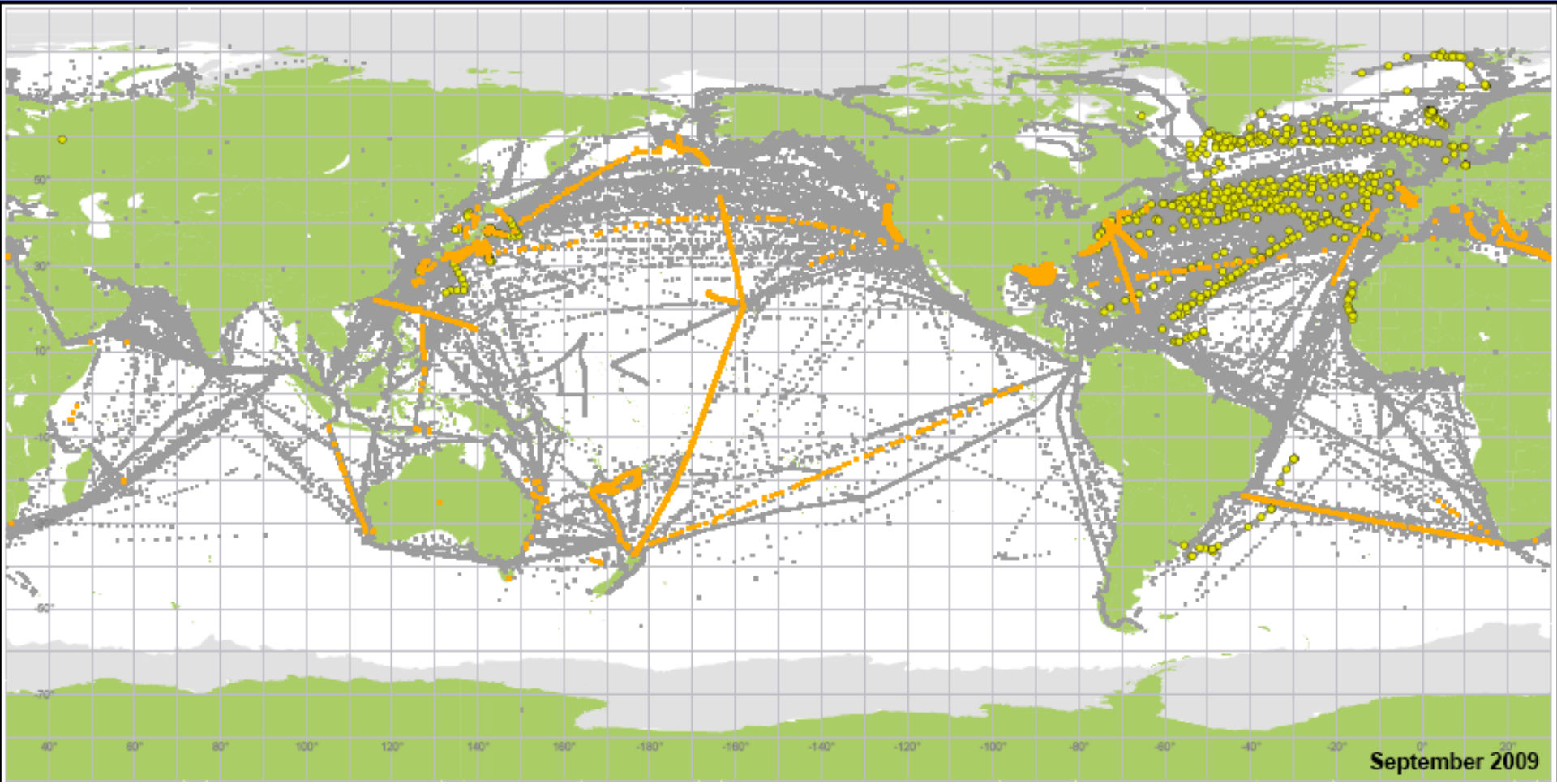
DBCP:
~1500 surface drifters & ~500 moorings



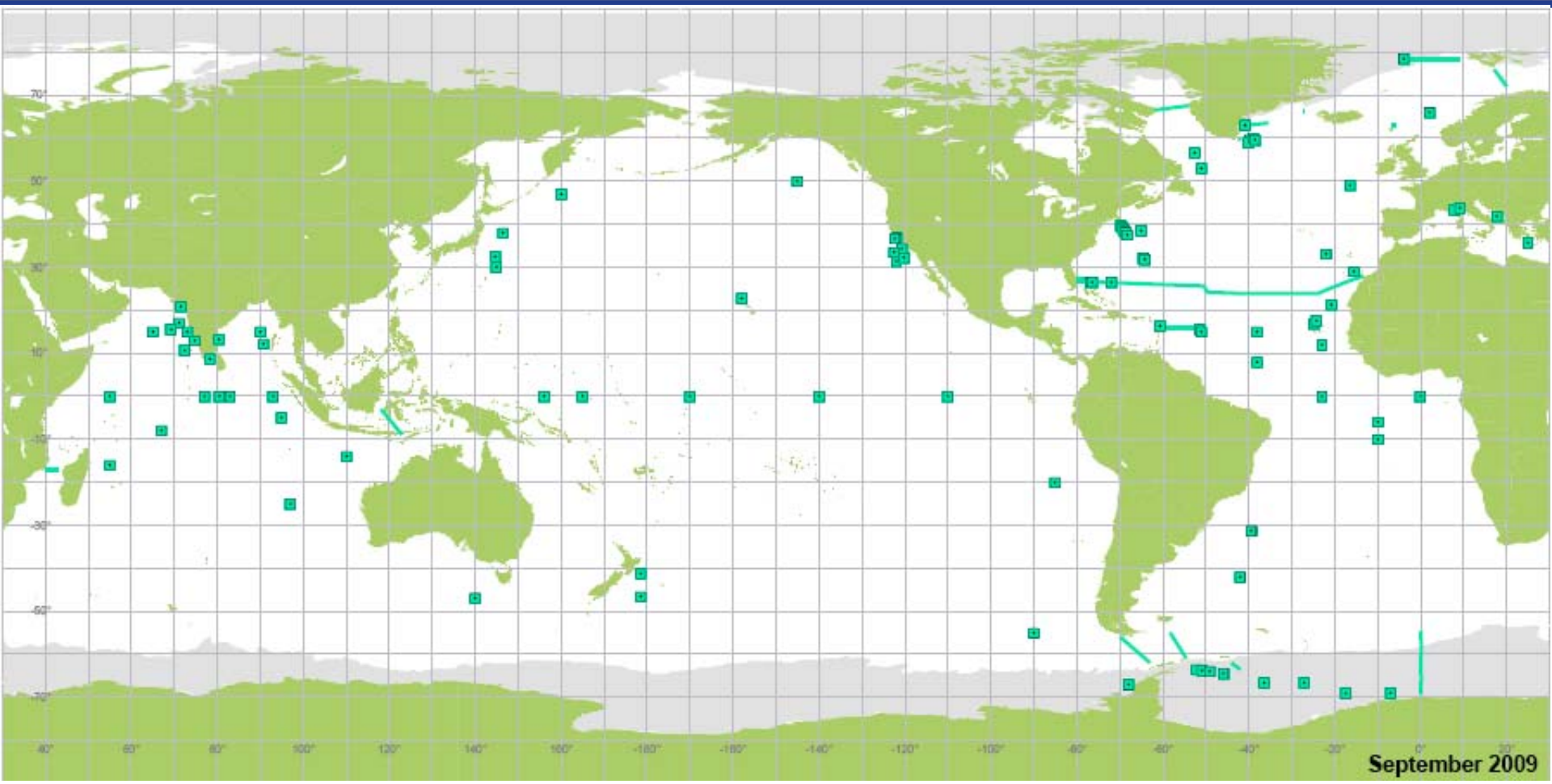
Argo:
~3000 profiling floats



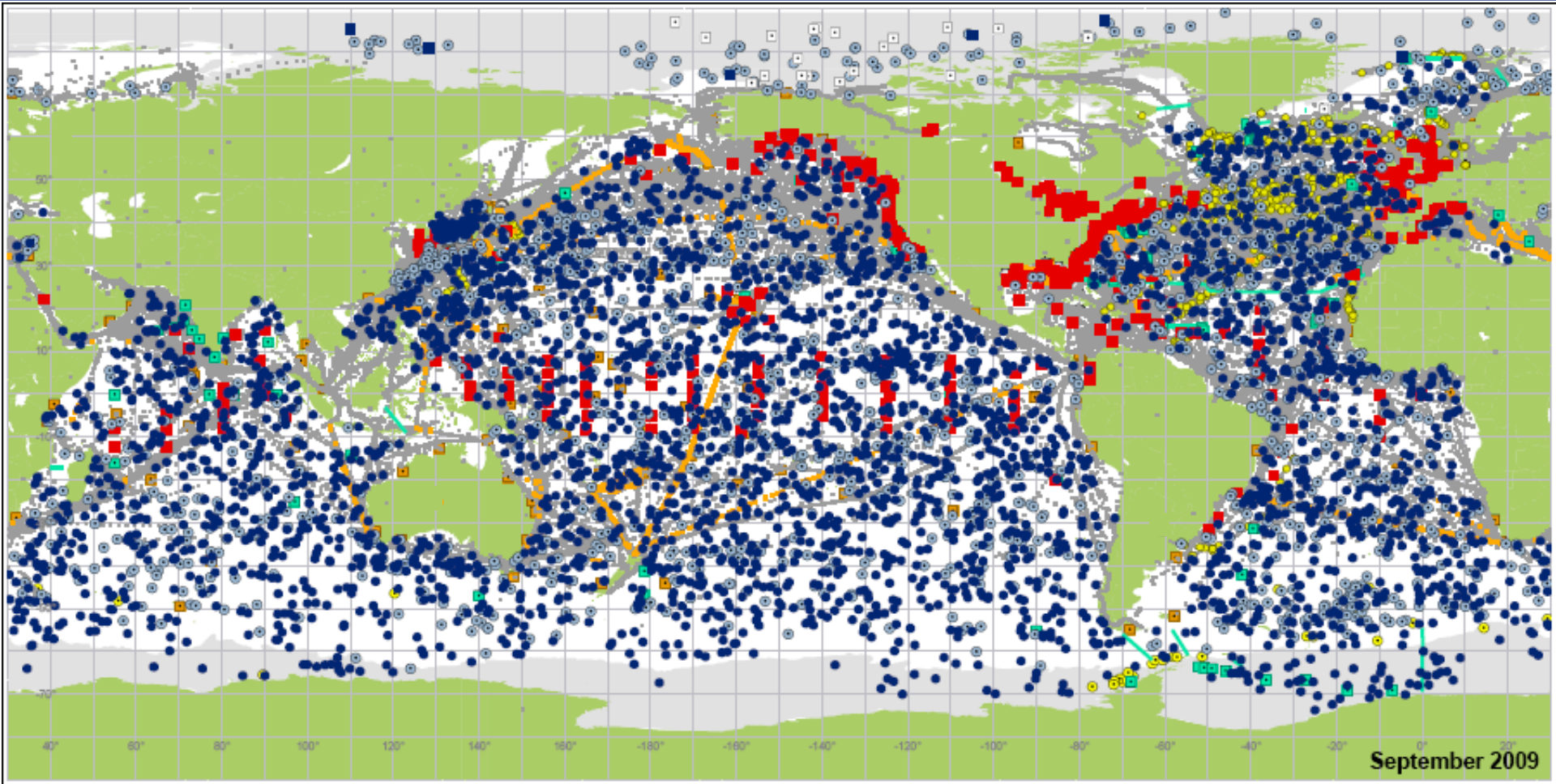
SOT:
~2500 ships



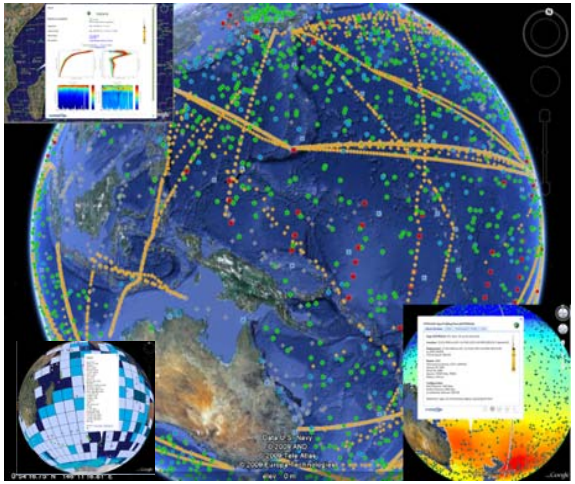
OceanSITES:
~80 reference sites & ~20 transport sites

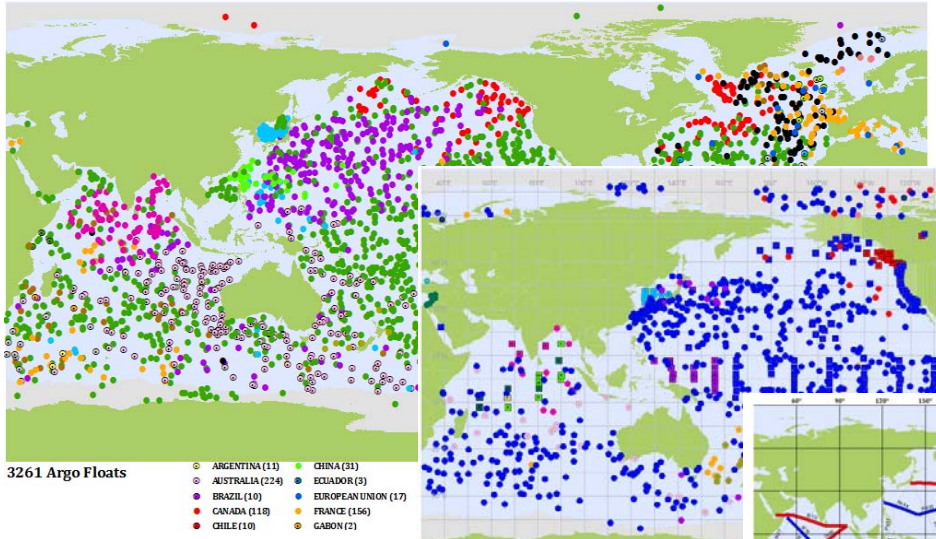


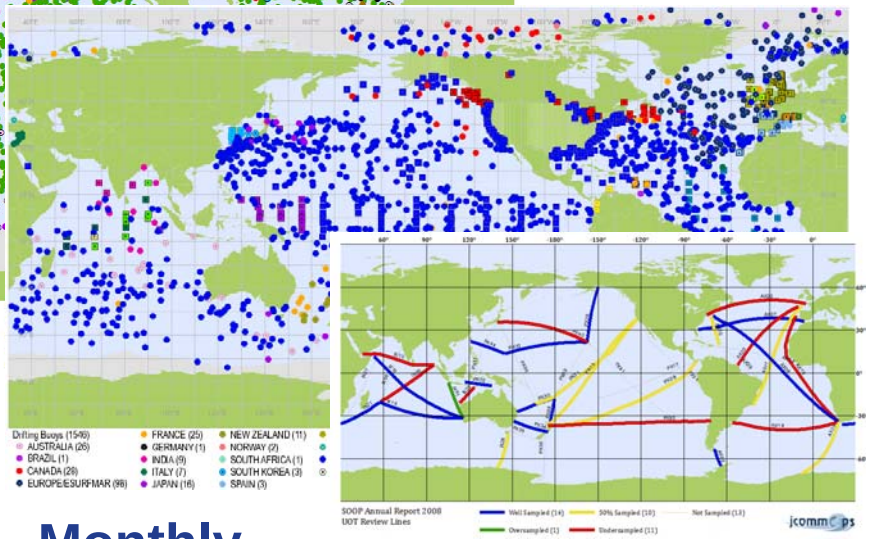
JCOMMOPS …


September 2009
Surface Drifters
Subsurface Floats
Ice-Tethered Profilers
OceanSITES
ASAP
XBT
Tide Gauges
Moored Buoys
Polar Ocean Profiling System
Marine Mammals
Transport SITES
VOS
XCTD
CTD
TSG
jcommops
Note: Last Locations for platforms. For Ships all locations during the month are presented.

Products & Services: Examples







Real-time ...

Very early on, JCOMMOPS provided online, interactive GIS–based, real-time tracking tools for ocean platforms and is now working on a partnership with Google to include JCOMM/GOOS observing system status and products within Google Ocean

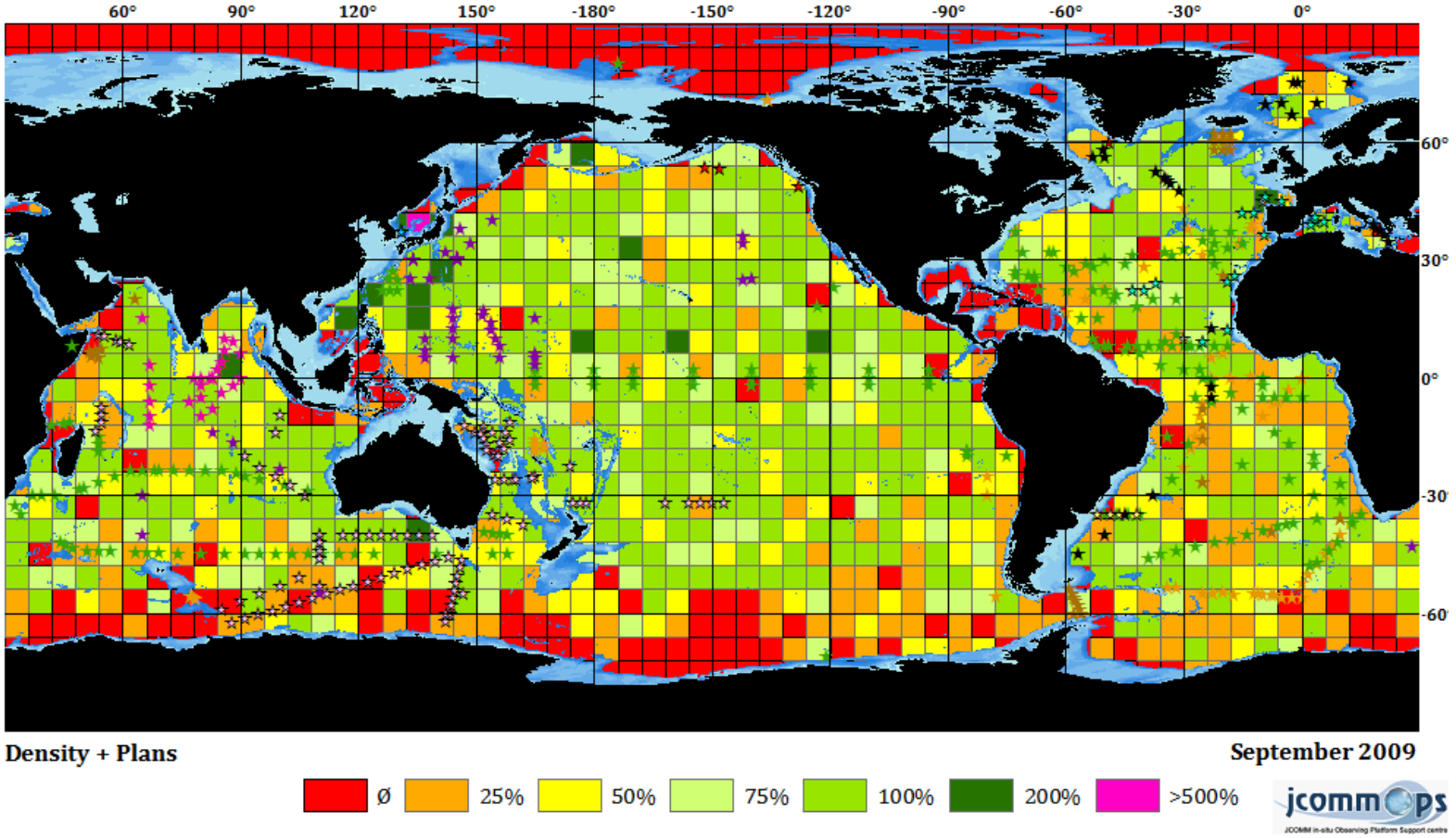
Interoperability targeted: Web Map Services, XML metadata exports, etc.

Monthly ...

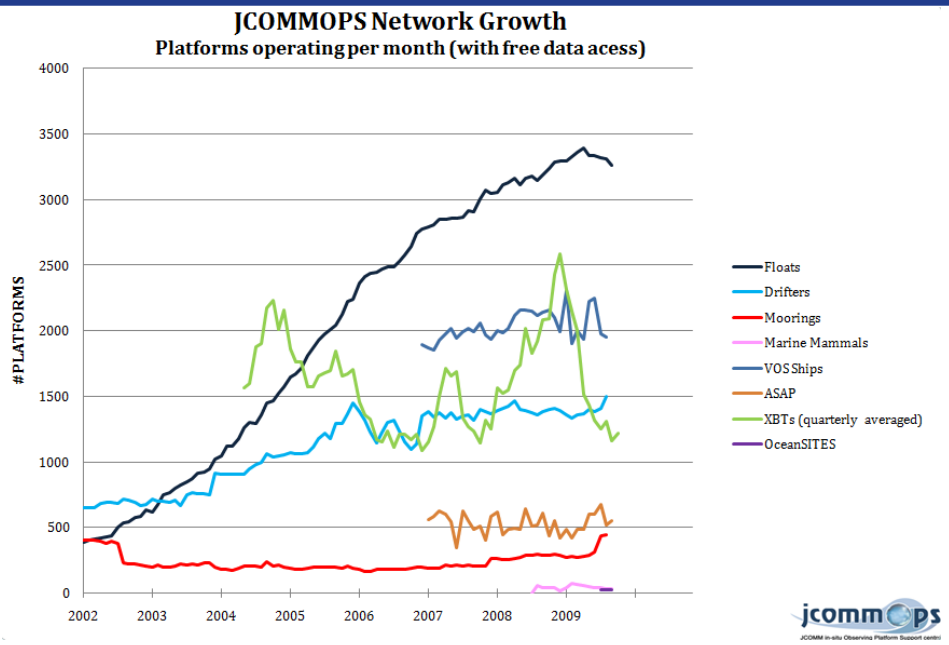
JCOMMOPS Status maps are widely recognized as authoritative and giving an up-to-date, verified status of the arrays, encouraging community to share the data and showing how the programmes assess and meet their requirements

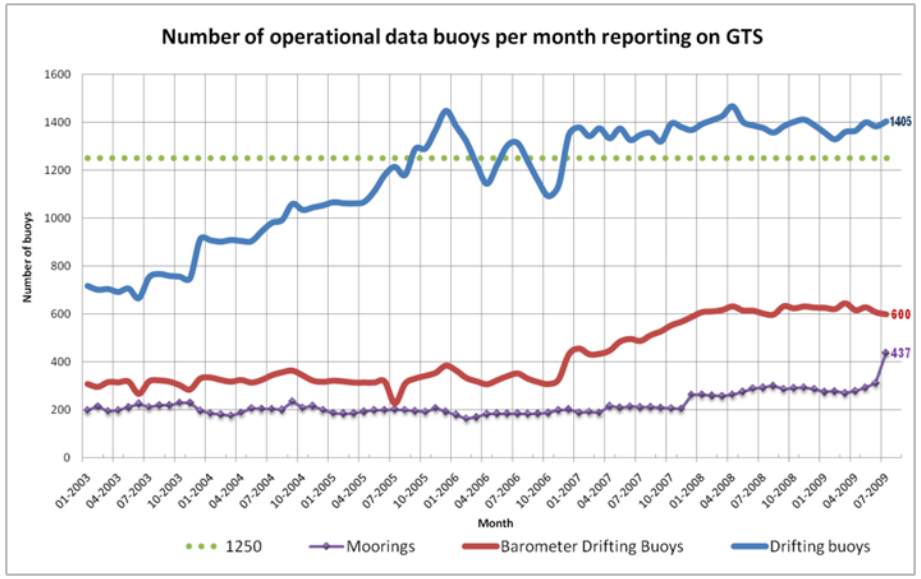
Products & Services: Examples

JCOMMOPS provides RT tools to **facilitate** and **organize deployment planning** (e.g. Argo)



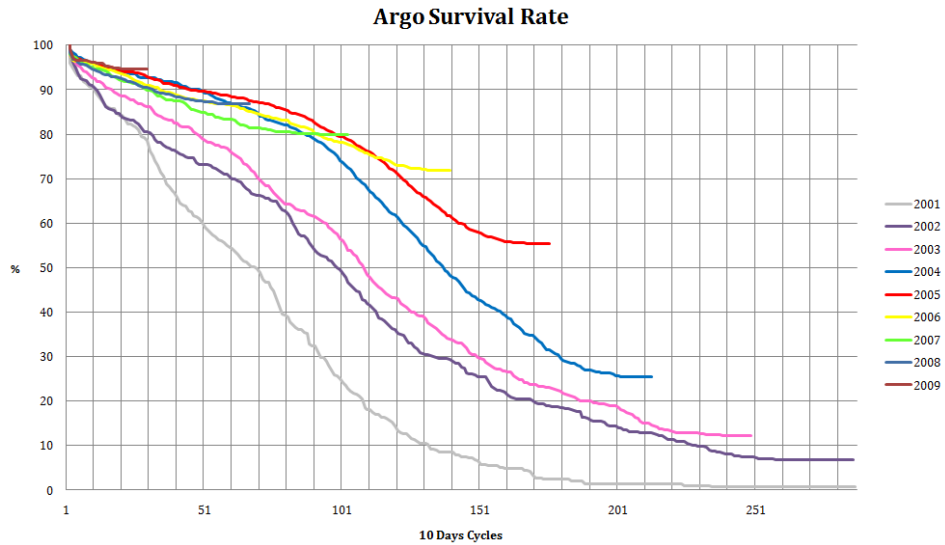
Products & Services: Examples





Products (on-line or on-demand) measuring the growth and efficiency of the arrays.

If there is a need for new information products on platforms, statistics about national/regional contributions, or a map, etc ... **just ask JCOMMOPS,** support@jcommops.org



Infrastructure: office, staff and Information System

- JCOMMOPS, hosted by France (CLS/IFREMER), has recently been renewed, with extended mandate to integrate more components of Observing System
- JCOMMOPS comprises two Technical Coordinators and a senior scientist:
  - **Mathieu Belbeoch**
    The Argo Profiling Float programme (70%)
    The Ship Observations Team (30%)
  - **Hester Viola**
    The Data Buoy Cooperation Panel (70%)
    The OceanSITES Program (30%)
  - **Yves Desaubies** (1/4 time)
    Scientific Coordination
- Plus a full time I.T. resource
- Students on work experience
- Work priorities are set by panel chairs or steering committee for each programme, in close cooperation with IOC/WMO.

Infrastructure: Office, Staff and Information System

- The JCOMMOPS I.S. routinely takes in information from different sources:
  - GTS of WMO, Global Data Centres , platform tracking data from telecom. Providers (Argos/Iridium), various metadata centres, etc.
  - Platform operators feed the system regularly (e.g. deployment planning) and

JCOMMOPS is not a data centre
… but a support centre managing **metadata**

- Information is then made available through different products and web tools, permitting:
  - tracking the status, development, and efficiency of the networks
  - Mapping the programme structure to facilitate communication
  - provides a common interface and visibility for the programmes.

Benefits of a shared infrastructure

- Sharing a common infrastructure (technical and logistical) is efficient since resources available for Coordination or Project office support are limited
- The transfer of skills and expertise between Technical Coordinators ensures continuity in the services to the community and allows long term support to the programmes.
- The “integrated centre” concept facilitates cooperation between observing systems components, via the day-to-day cooperation between the Coordinators.

New programmes incorporated into JCOMMOPS today would immediately benefit from the existing infrastructure and experience gained.

Products & Services: Monitoring

Monitoring goals:

- An authoritative source of metadata for platforms and **official status of the arrays**
- Common and integrated monitoring tools across the networks
- Common and specific performance evaluation tools for the networks
- Integration of quality control feedback mechanisms across programmes and platforms
- Detection of problems with data formats, data archives

Monitoring Tools:

- Real-time web applications to browse the platform database
- Real-time GIS/Chart based monitoring and tracking tools
- Daily Metadata export files (Textual, XML, Google Earth outputs).
- A portal for access to community (national/regional) web based monitoring tools
- Various monthly and yearly products and reports

How could JCOMMOPS assist Go - Ship?

- Provide comprehensive information on programme status :
  - Cruises completed, station positions, type of data collected
  - Updates on the planning, cruise plans
  - Status of data stream : collection, validation, archiving, availability
- Give visibility and recognition to the programme :
- Integration with other programmes
- JCOMMOPS immediate synergies (infrastructure, experience in international coordination, JCOMM)
- JCOMMOPS experienced in web-based technologies
- Programmes supported by JCOMM acknowledge the beneficial support and services provided by the OPS

Programme Office activities

- Programme Office activities are distinct from OPS, but there is overlap and very significant complementarity
- Support to Steering Team
  - Communication within the programme
  - Organize meetings and workshops
  - Produce reports
- General secretariat of the Programme
  - Maintain bibliography
  - Data bases on Principal Investigators
- Representation and promotion of the Programme
- Liaise with other programmes
- Maintain web site

Coordinator Position / GO-SHIP Information Centre

- JCOMMOPS could :
  - Make the case of the need at the international level (done for JCOMM)
  - Help to define the ToR based on examples of Argo, DBCP, OceanSITES
  - Help on the administrative aspects and relationship with IOC/UNESCO and WMO
- What would be the support level required for GO-SHIP ?
  - ½ time ? Full time ?
- For Information:
  - UN Civil Servant (IOC/UNESCO), grade P2 full time
  - Funds required: ~100 k€ / year
  - = Salary + Mission budget + participation to infrastructure

Conclusions

- JCOMMOPS has an infrastructure in place, providing services to the JCOMM community
- Feedback from JCOMM and its programmes indicates that JCOMMOPS is a major element in the successful implemention of the observing systems
- JCOMMOPS is visible and recognized internationally
- JCOMMOPS has been given the mandate to integrate further components of the global observing system
- GO-SHIP has expressed interest

The way forward

Does GO-SHIP confirm interest in support from JCOMMOPS ?

If Yes / maybe : work together to define requirements,scope, terms of reference

- JCOMMOPS is very **flexible** infrastructure and can adapt to the specific support required for GO-SHIP Programme.
- JCOMMOPS would need to understand **your** requirements better to see how it could assist as appropriate.

Seek endorsement from IOC (June 2010 ?)

Seek funding

More Info: OceanObs'09 JCOMMOPS CWP

http://www.jcommops.org

support@jcommops.org

Thank you …