JCOMM Observing Programme Support Centre

Argo- AST11

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Aims of this talk

- Presentation of JCOMMOPS Infrastructure
- Prospects for further integration of observing programmes
- Feedback from Argo on needs and expectations

Background

- JCOMMOPS was developed (JCOMM 1st session (2001)) to provide support in planning, implementation, monitoring, assessment, facilitating international cooperation of JCOMM programmes

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 Programmes Support

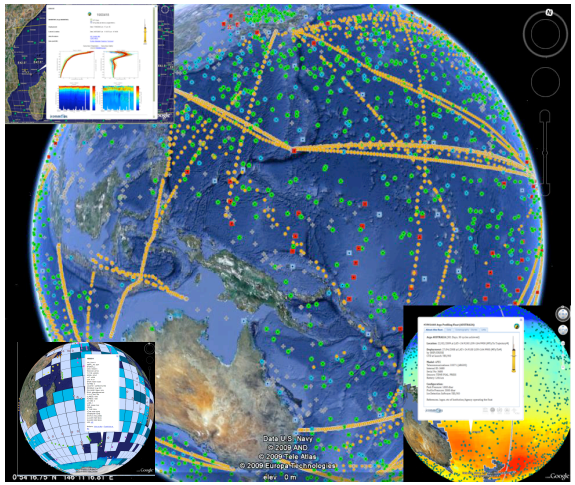
- JCOMMOPS is involved with the implementation of the main global *in-situ* observing systems, including:
  - **DBCP (data buoy cooperation pannel):** Drifting and moored buoys in the high seas and tropical moorings
  - **SOT (ship observations team) :** XBTs, TSGs, atmospheric soundings, meteorological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

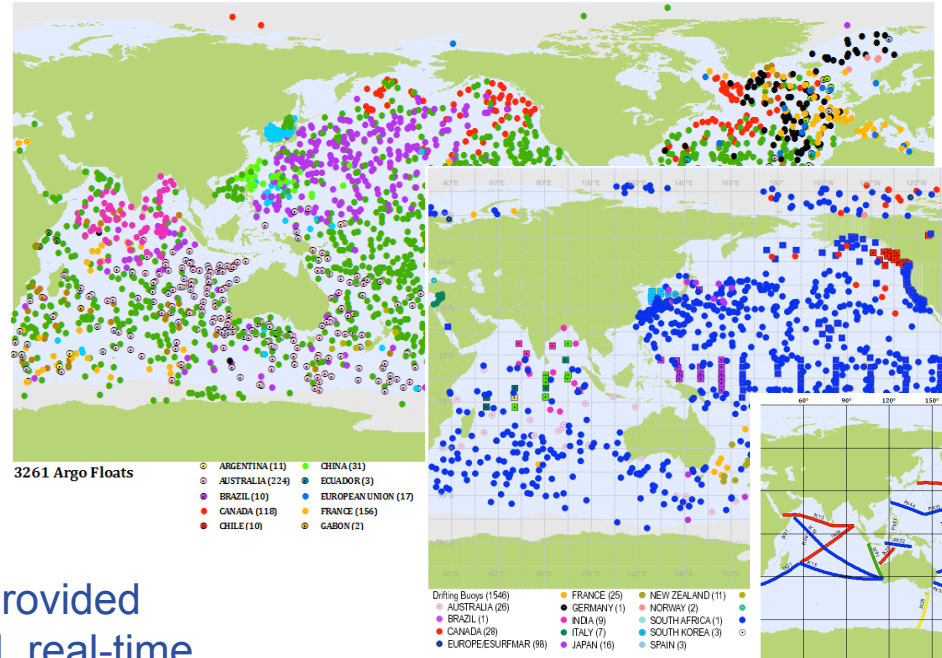
JCOMMOPS mission

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

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

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 half-time I.T. resource to be made full-time (being discussed)
- 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

- 250 k€ / year of global funding (staff salary / mission / hosting contract)
- Truly international support (and growing support from Asia)

Summary of National Voluntary Contributions (annual or ad hoc)		
DBCP	Australia, Canada, Europe (E-SURFMAR), France, Japan, New Zealand, South Africa, India, United Kingdom, USA.	Maintained
Argo	Australia, Canada, China, France, Germany, India, Korea, United Kingdom, USA.	Maintained
OceanSITES	Australia, USA and DBCP	being increased
SOT	Australia, Canada, Germany, New Zealand, USA	to be increased

The JCOMMOPS budget is just sufficient for the existing needs but does not allow any flexibility for growth.

Infrastructure: Information System

- The requirements for an integrated I.S. was recognized in 2001 and built gradually by JCOMMOPS staff (99%):
  - International programmes need centralized and efficient information and communication tools.
  - Information on the programs, platforms, people, data, etc, is constantly changing and needs to be well structured.
  - Database, GIS technologies are required to manage information and web based technologies are required to share and communicate this information.

A new system is being designed to be used into the next decade, with a new generation of **integrated** web products and services (2010-2012)

Infrastructure: 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 data

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.

Services: help desk

- The JCOMMOPS Coordinators monitor and provide oversight for the global arrays, and understand all the elements of the system:
  - platforms, people, data systems
  - Law of the Sea issues: (IOC Res XX-6 and XLI-4) –

- JCOMMOPS provides a team responsive to varied requests
  - For products
  - Information
  - Procedures
  - Communication

Products & Services: Assistance

- Assistance to national programs and individual platform operators
  - on **any issue** required to participate in an international program
  - on data distribution, following appropriate standards
  - on logistics (deployment planning, deployment methods, instrument retrieval)

In addition to its web sites, JCOMMOPS provides a responsive and proactive focal point.

  - a web portal to find information relating to ocean observing systems, including a centralized source of documentation, contact details, programme information and platforms, etc, and
  - common system for managing communications (e.g. news items, mailing lists, picture galleries, etc)
- Assistance to individual scientists and data users (growing and rationalized)
- Assistance to the community or media (photos, maps, articles, presentations, etc)

JCOMMOPS Future directions: Integrated products / services

- **Design a new generation of integrated web tools:**

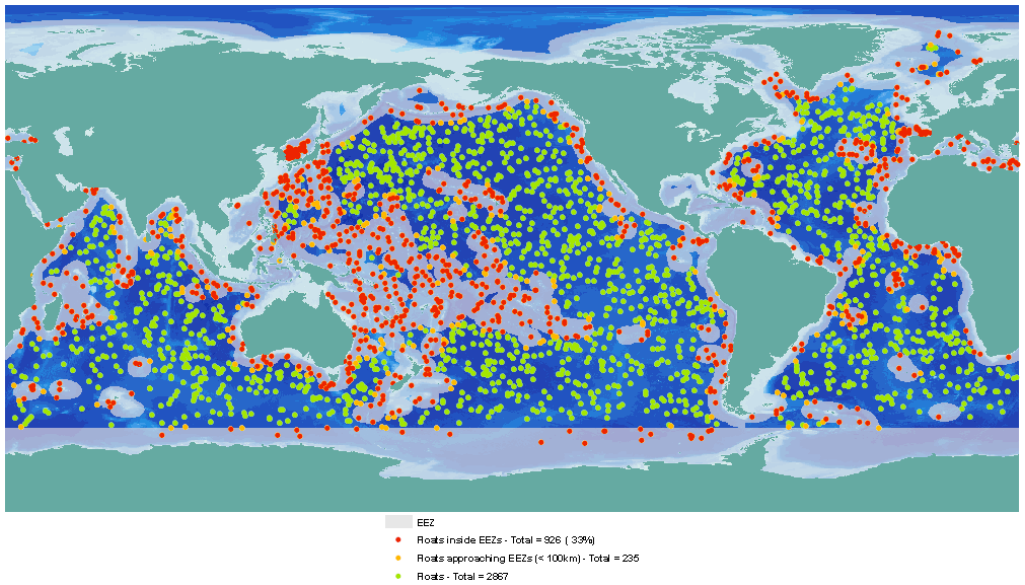
- **Developing further cooperation across the obs. systems (ship time, deployment opportunities)**
  - JCOMMOPS is working with partners to create a new “Cruise Coordinator” position
  - Identify future research cruises, and CTD data essential to Argo data quality control, in cooperation with the GO-SHIP, CCHDO and POGO initiatives.

- **Developing further international cooperation by cross-programme training workshops and platform donation**

- **Make cross-programme “variable oriented” monitoring products**

International Issues

- **IOC/UNESCO**
  - IOC Res. XX-6, adopted in June 2000: *"(…) notify to Member States of all floats which might drift into some EEZs (…)"*
  - *JCOMMOPS/AIC implemented and maintains the procedure*
  - IOC Res. XLI-4 adopted in June 2008, recognized Argo as a "programme" to be sustained, acknowledged the work of JCOMMOPS/AIC
  - Continue the efforts in notifying deployments (**Transparency)**
  - EEZ = 30% of the ocean ...
  - Developing **cooperation** helps to solve issues



JCOMMOPS programme support

- 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

JCOMMOPS at a cross - road

JCOMMOPS has been recently reviewed and renewed

- "*extremely useful", "indispensible", "highly regarded"*
- *" urgent need for an expansion of its role and scope"*

Fifteen letters of interest, five short-listed,

- evaluated by JCOMM management
- With representatives from AST, DBCP, SOT, Ocean SITES, IOCCP, …

Selection of CLS / Ifremer proposal to host the Centre

- Additional resources to be sought
- Mandate to widen scope, and to integrate further components of observing systems

Short term actions

- Need to formalise status of JCOMMOPS
  - Become a Programme Office, under contract between host and IOC
- Funding : find new resources
  - IOC, National contributions
  - From programmes
  - In kind, seconded personel
  - Locally from host country and agency
- Expansion of role and scope
  - Serve new programmes (Gliders, GoSHIP, IOCCP, Bio-Argo...)
  - Integration across programmes and role as project office
  - Scientific guidance : "*assist in demonstrating scientific value*"

Short term actions

- New programmes, recent contacts
  - Gliders : not mature yet as a sustained programme
  - Go-SHIP (repeat hydrographic surveys) : seems a prime candidate => follow up on Portland meeting
  - Explore possibility and opportunities with other programmes (carbon and bio ?)
- Need for Research cruise information and planning
- Integrate Technical coordination with Programme Office activities, which overlap and are closely related
- Constant interaction with Programmes to be responsive to their needs
  - Guidance from Programme Steering teams
  - Argo : new directions ??

Programme Office activities

- Programme Office activities are distinct from Technical coord., but there is very significant overlap and 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

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 has been given the mandate to integrate further components of the global observing system
  - Which are the priorities ?
- Great benefit from sharing of resources among programmes
  - Information system, IT developments
  - Common view of the different components of observing system

- Funding remains a challenge
- Feed back from Argo