

# OceanGliders, JCOMMOPS and the role of a Technical Coordinator for the community

Victor Turpin  
[vturpin@jcommop.org](mailto:vturpin@jcommop.org)



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# GLOBAL OCEAN OBSERVING SYSTEM

*A sustained collaborative system of ocean observations to take the pulse of the ocean*



- Why a global ocean observing system?

Ocean observations are needed to:

- generate **marine weather forecasts** (safe and efficient maritime operations)
- manage **extreme events** and improve emergency response efficiency
- **climate change and variability** (enabling adaptation by communities)
- monitor **ocean health**
- **sustainable** use **ocean resources**

# GOVERNANCE



*UN Agencies, Joint Commission ,  
Observing Networks - GOOS*



**Coordination  
Monitoring  
Support**





# OCEANGLIDERS – THE GLIDER PROGRAMME OF THE GOOS



*UN Agencies, Joint Commission,  
Observing Networks - GOOS*



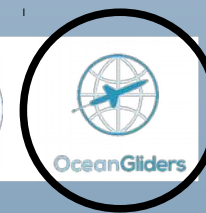
OPA

DMPA

SFSPA

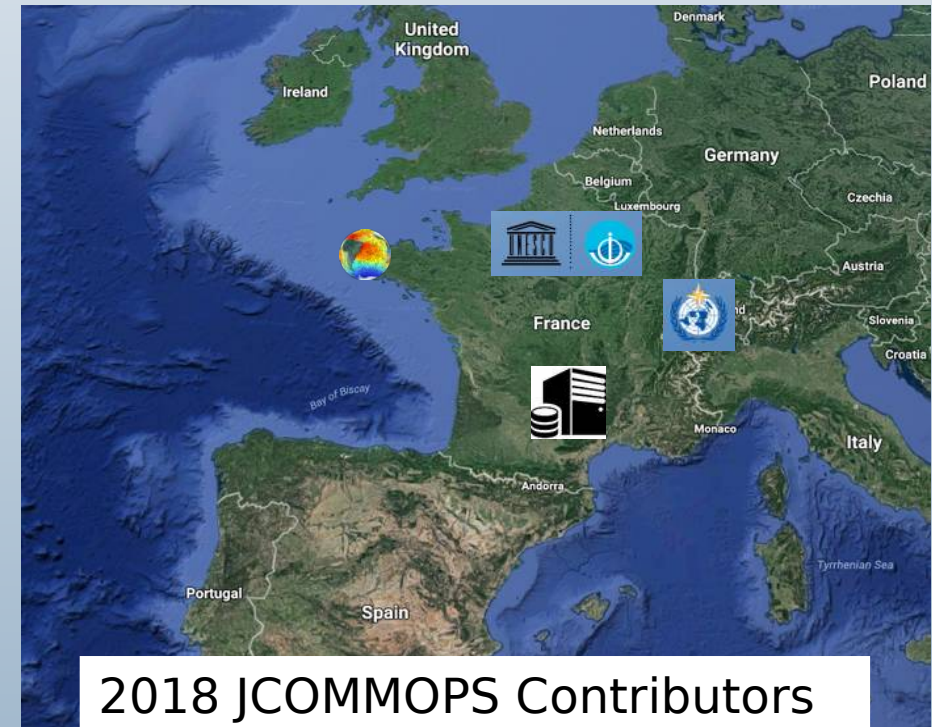


**Coordination  
Monitoring  
Support**

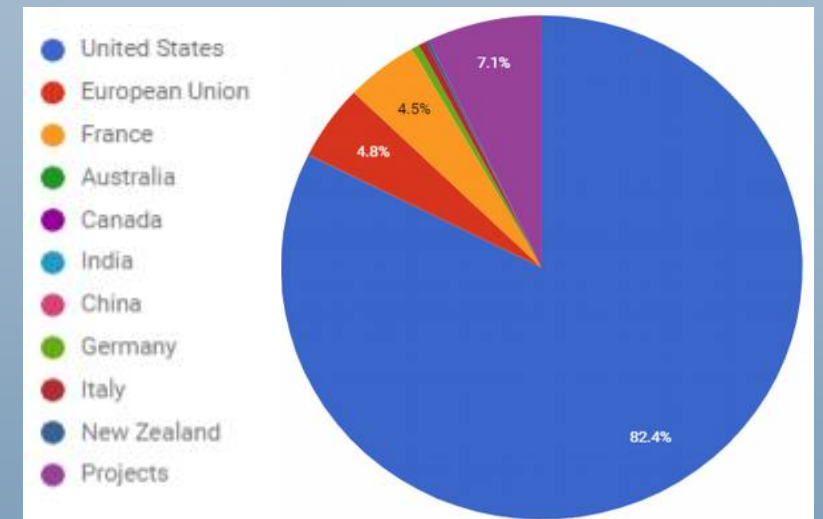


# INFRASTRUCTURE

- Premises hosted by Ifremer Headquarters (Brest - FRANCE)
- 7-person team:
  - Lead, Argo Technical Coordinator – M. Belbéoch
  - Ship Technical Coordinator (SOT, GO-SHIP, Cruise Plans) – M. Kramp
  - Software Architect – A. Lizé
  - Web Developer – T. Latter (subcontracted CLS/Toulouse)
  - Science/Communication/Administration Coordinator – E. Rusciano (PhD)
  - DBCP/OceanSITES Technical Coordinator – L. Jiang
  - OceanGliders/Regional Technical Coordinator – V. Turpin **(NEW)**
- Information System powered by CLS/CNES (Toulouse - FRANCE)
  - 6 servers: Oracle DB, ESRI GIS, Web, Front, API, Dev.
  - 2<sup>nd</sup> generation
- Funded by yearly voluntary contributions from MS, EU, projects
- Support provided by IOC/WMO, local authorities, Science Park, Aquarium ...



2018 JCOMMOPS Contributors



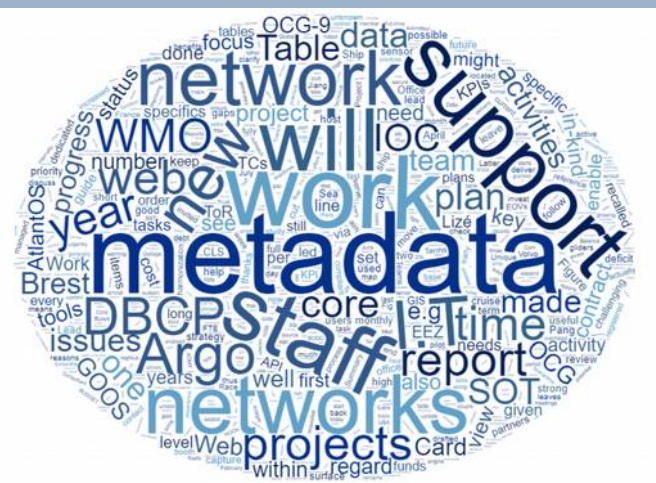
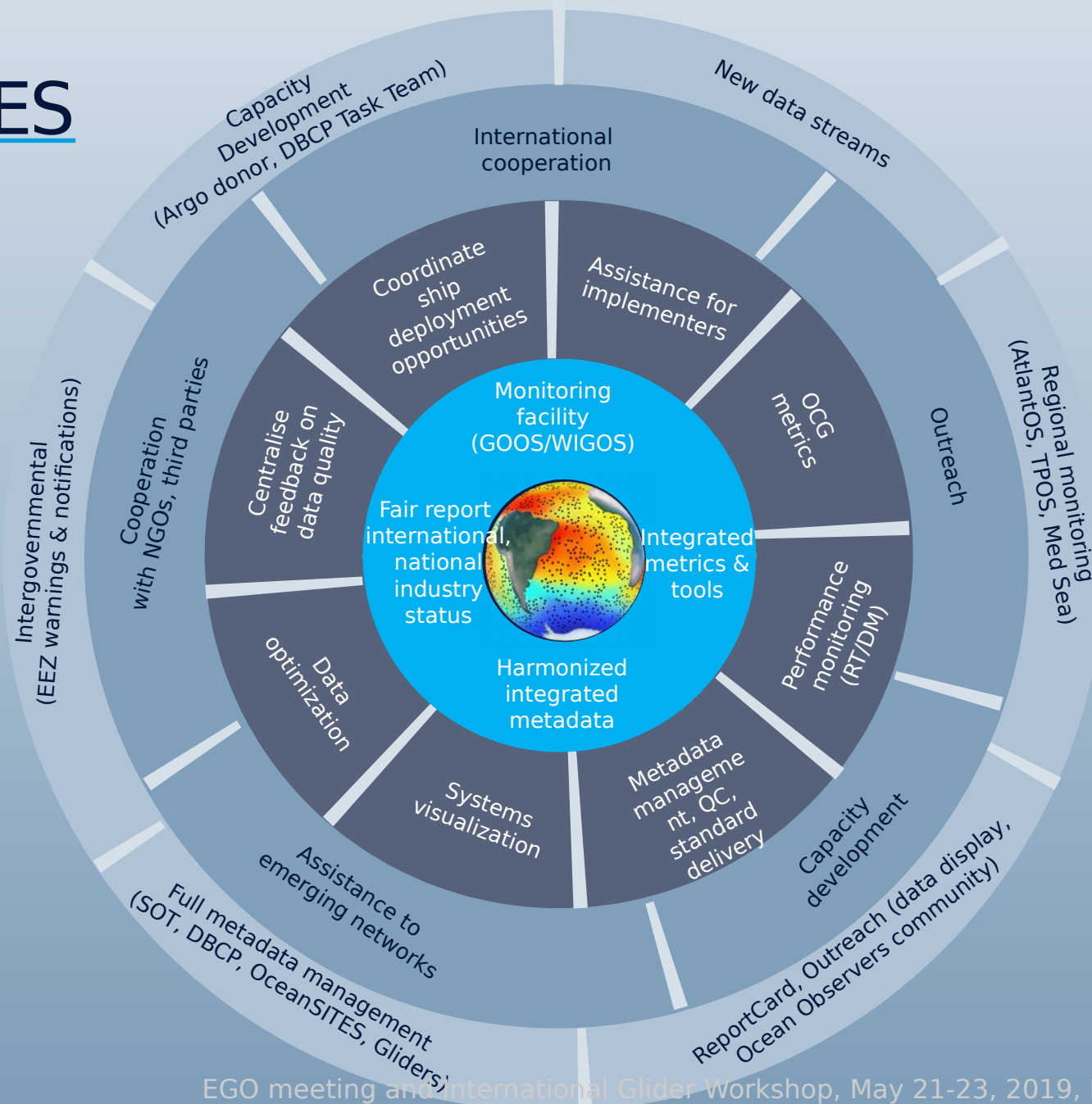
## DELIVERABLES

## Unique

## Core

## Complementary

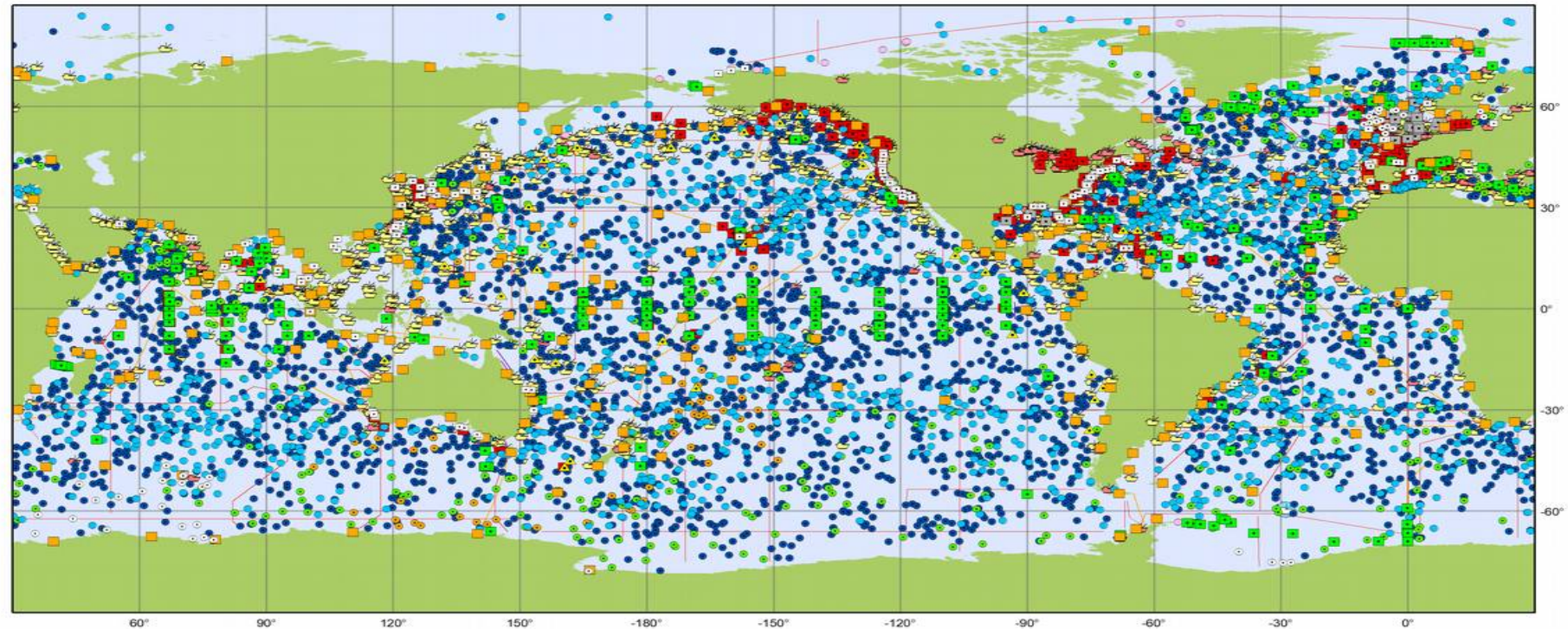
## Extras/Specifics





# JCOMMOPS: FOCAL POINT FOR TECHNICAL COORDINATION

*Implementation, Data/Metadata exchange, Monitoring*



Main in situ Elements of the Global Ocean Observing System

April 2019

## Profiling Floats (Argo)

- Core (3880)
- Deep (79)
- BioGeoChemical (352)

## Data Buoys (DBCP)

- Surface Drifters (1444)
- Offshore Platforms (97)
- Ice Buoys (11)
- Moored Buoys (358)
- ▲ Tsunameters (38)

## Timeseries (OceanSITES)

- Interdisciplinary Moorings (351)
- Repeated Hydrography (GO-SHIP)
- Research Vessel Lines (62)
- Sea Level (GLOSS)
- Tide Gauges (252)

## Ship based Measurements (SOT)

- Automated Weather Stations (257)
- Manned Weather Stations (1324)
- Radiosondes (11)
- eXpendable BathyThermographs (34)

## Other Networks

- HF Radars (270)
- Animal Borne Sensors (53)
- Ocean Gliders (31)

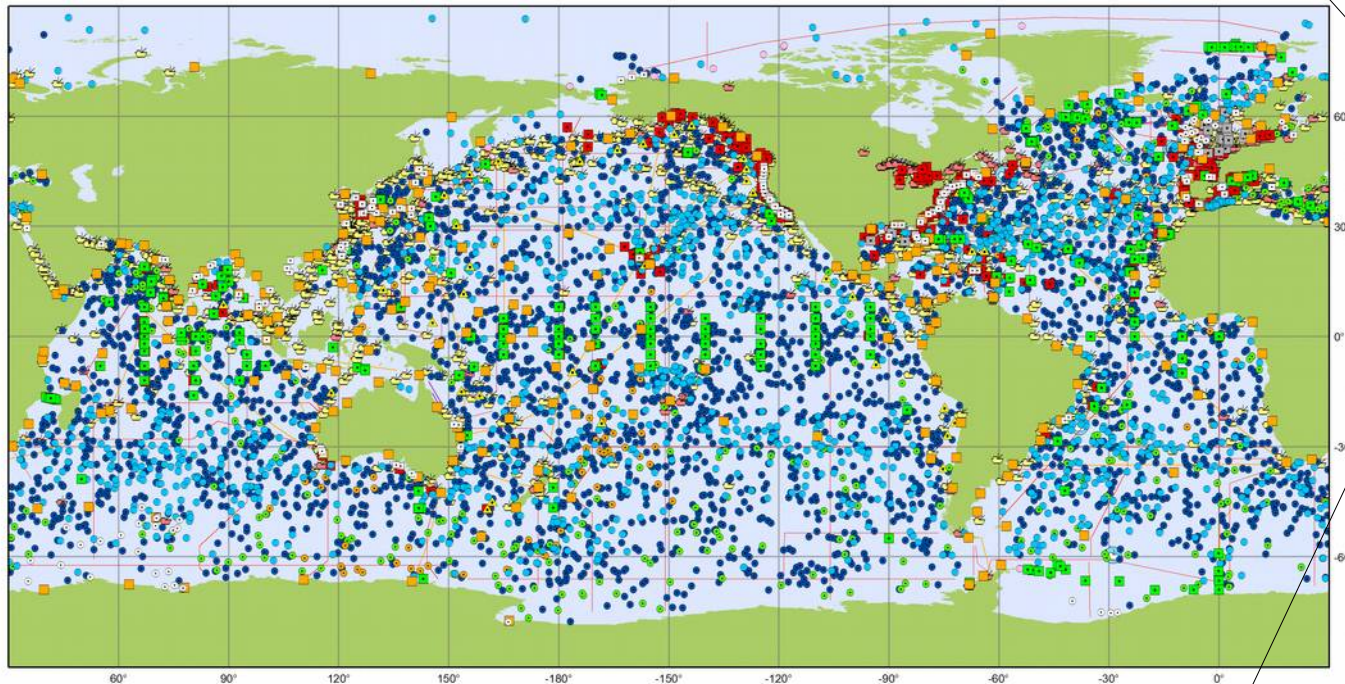


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# JCOMMOPS: FOCAL POINT FOR TECHNICAL COORDINATION

*10 000 instruments deployed at the sea for observing the ocean*



Main in situ Elements of the Global Ocean Observing System

April 2019

Profiling Floats (Argo)	Data Buoys (DBCP)	Timeseries (OceanSITES)	Ship based Measurements (SOT)	Other Networks
<ul style="list-style-type: none"> <li>Core (3880)</li> <li>Deep (79)</li> <li>BioGeoChemical (352)</li> </ul>	<ul style="list-style-type: none"> <li>Surface Drifters (1444)</li> <li>Offshore Platforms (97)</li> <li>Ice Buoys (11)</li> <li>Moored Buoys (358)</li> <li>Tsunameters (38)</li> </ul>	<ul style="list-style-type: none"> <li>Interdisciplinary Moorings (351)</li> <li><b>Repeated Hydrography (GO-SHIP)</b></li> <li>Research Vessel Lines (62)</li> <li><b>Sea Level (GLOSS)</b></li> <li>Tide Gauges (252)</li> </ul>	<ul style="list-style-type: none"> <li>Automated Weather Stations (257)</li> <li>Manned Weather Stations (1247)</li> <li>Radiosondes (11)</li> <li>Expendable BathyThermographs (34)</li> </ul>	<ul style="list-style-type: none"> <li>HF Radars (270)</li> <li>Animal Borne Sensors (53)</li> <li><b>Ocean Gliders (31)</b></li> </ul>

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Only a 31 gliders registered in the GOOS, that are not up to date yet !  
**Need to be updated !**



# TECHNICAL SUPPORT FOR OCEANGLIDERS PROGRAMME

## General Priorities :

Support the priorities defined by OceanGliders Steering Team :

- OG1.0,
- Network Design (Sustained Observations)
- KPI and Targets,
- Best practices
- Capacity Building
- Globalisation of the programme

***Feed the JCOMMOPS monitoring system with OceanGliders deployments metadata***

## 2019 – 2020 Work Plan :

December 2019 :

- Every 2019 gliders deployments registered in the JCOMMOPS System
  - *EGO/IOOS* → July (**JCOMMOPS Quaterly report, First map**)
  - *IMOS* → September
  - *Brazil, Canada, Japan, New Zeland, South Korea, South Africa, Taiwan... until 2020.*
- Agreement on OG1.0
- Agreement on a « design » for the OceanGliders program and a first set of KPIs

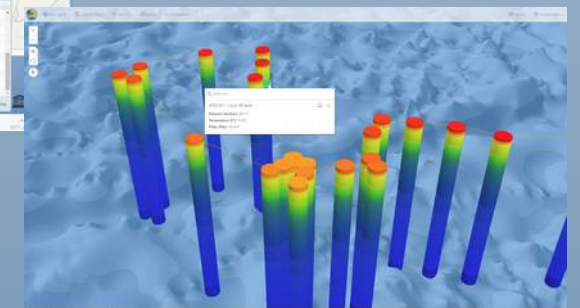
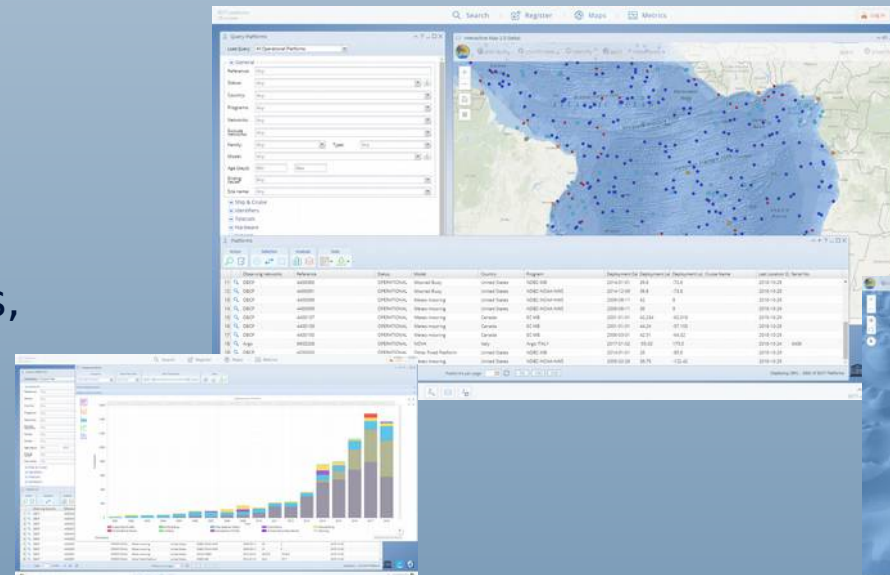
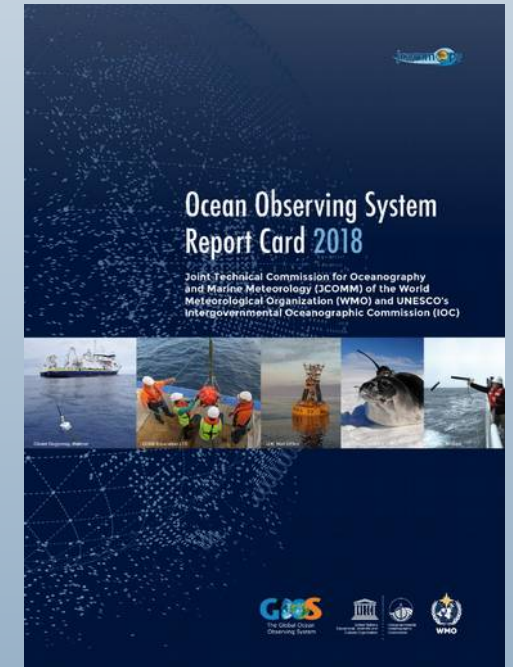
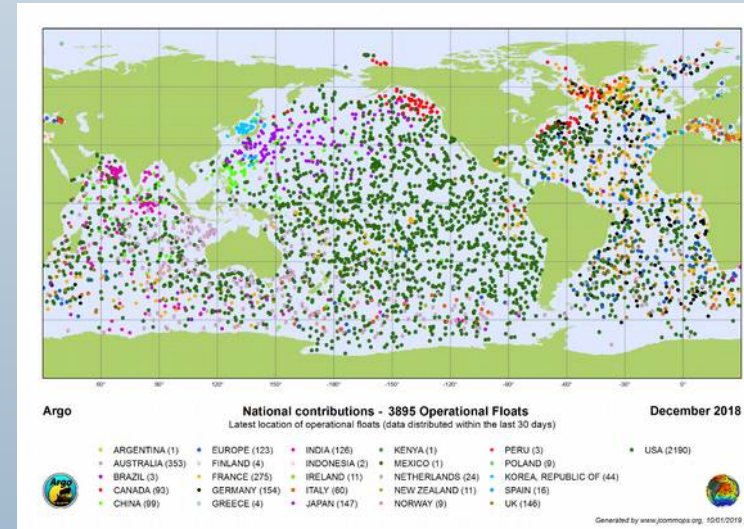
December 2020 :

- Historical OceanGliders deployments regisered into JCOMMOPS System
- Implementation OG1.0 format

# JCOMMOPS : DISTRIBUTE METADATA AND MONITOR THE NETWORK

*What can we do with it?*

- Monthly authoritative status maps ([www.jcommops.org/map](http://www.jcommops.org/map))
- Annual JCOMM Report Card to inform ocean observing stakeholders, society and decision-makers about the status and value of the GOOS ([www.jcommops.org/reportcard](http://www.jcommops.org/reportcard))
- Web application to make query, maps, graphs, stats, 3D data visualization ([www.jcommops.org](http://www.jcommops.org))



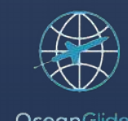


# CONCLUSION

- JCOMMOPS brings technical support to the programme development
- JCOMMOPS is one of the key of the success for an observing system (Argo, GO-SHIP, VOS, DBCP)
- Quality metadata are critical to monitor and promote an observing system
- JCOMMOPS is a mature and experienced infrastructure ready to serve the glider community in the JCOMM integrated concept



Ocean  
Gliders



Спасибо  
Thank you  
Gracias  
Merci  
谢谢  
شُكراً

support@jcommops.  
org

