



SeaDataCloud

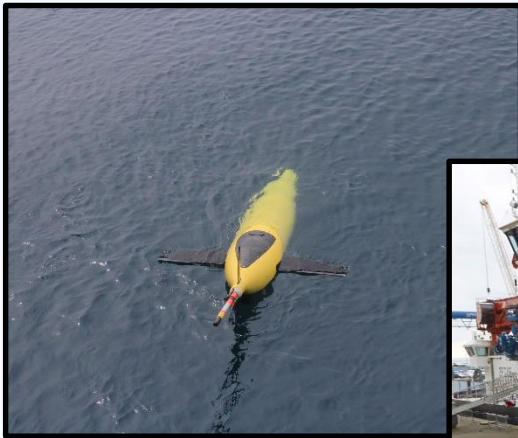
Handling glider data (WP9.5.3)

Mark Hebden (BODC)

SeaDataCloud 3rd Annual Meeting, Brest, 17-18th October 2019

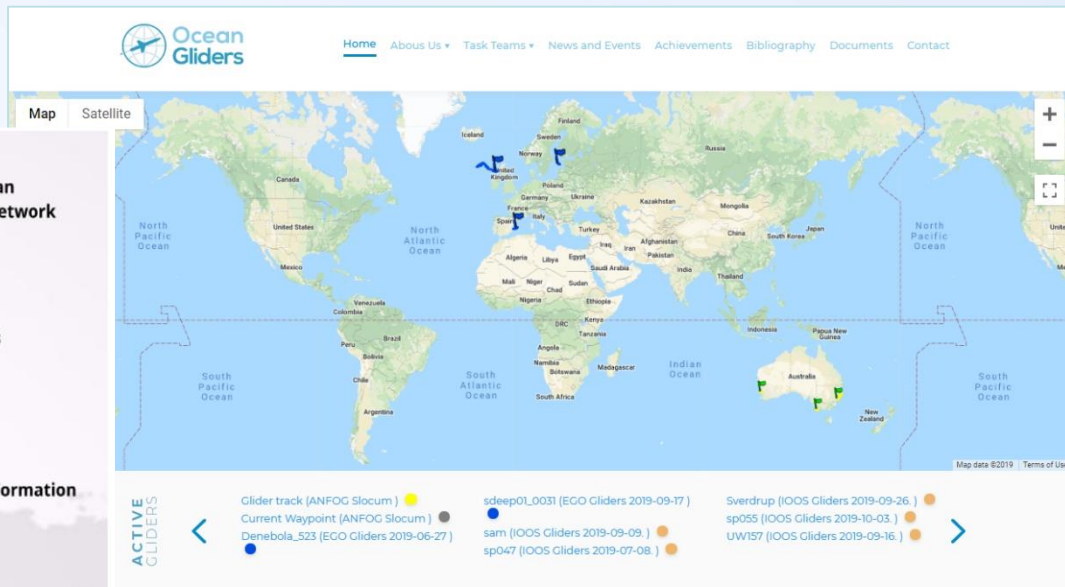
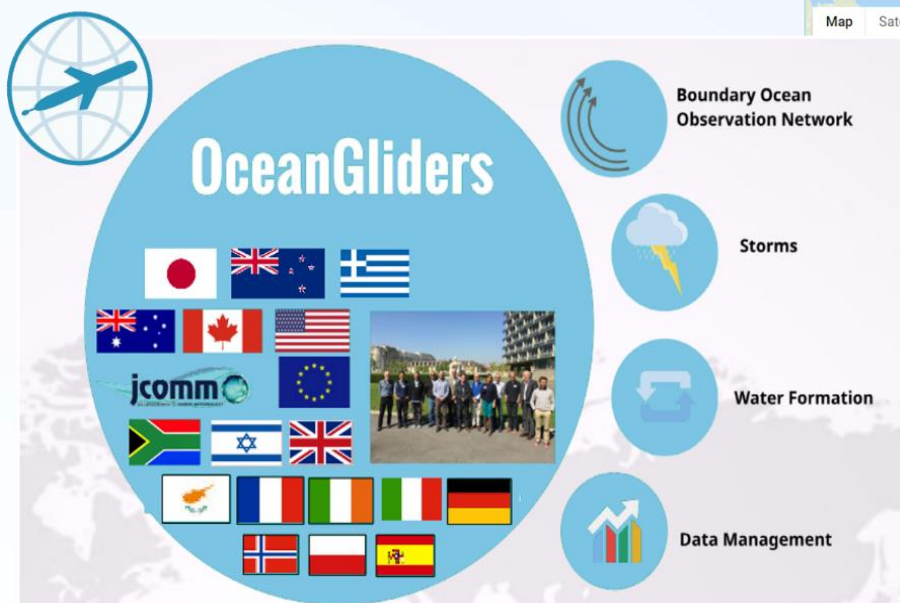
sdn-userdesk@seadatanet.org – www.seadatanet.org

D9.14: SeaDataNet data management protocols for glider data (M32)





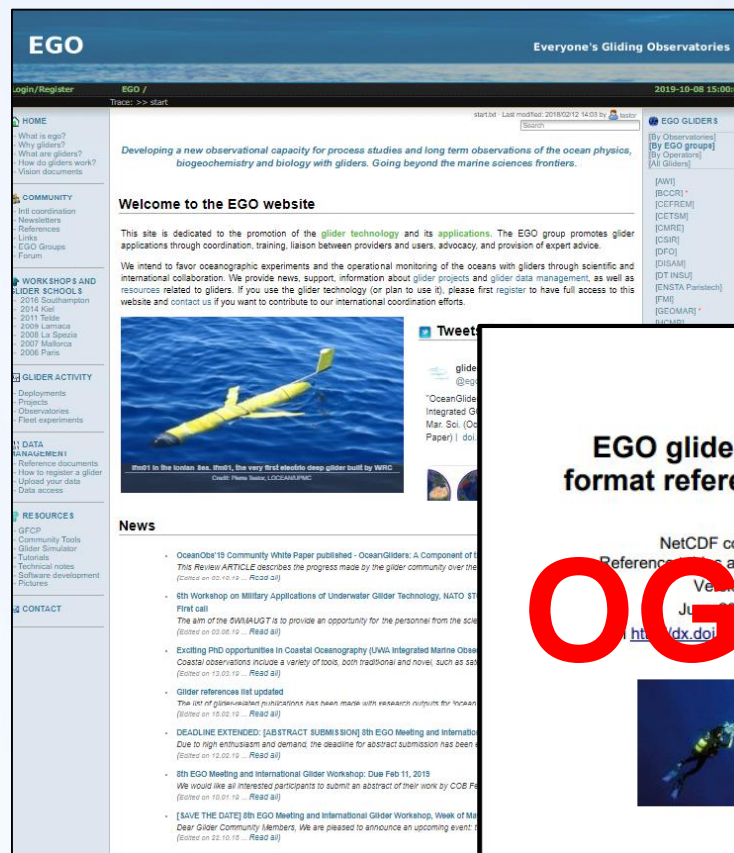
OceanGliders – international glider governance (since Sept 2016)



OceanGliders, the glider component of the integrated Global Ocean Observing System

Global initiatives for glider data management

- Europe – EGO (Everyone's Gliding Observatories)
- U.S – IOOS (Integrated Ocean Observing System)
- Australia – IMOS (Integrated Marine Observing System)



EGO format and standards


- NetCDF based on Argo, OceanSITES, ANFOG
- Trajectories with 'phase' information stored
- Underpinned by common controlled vocabularies/catalogues: CF Standard Names, NVS (P01, P06), WMO and ICES Platform Codes, EDMO...
- Bespoke EGO reference tables, akin to Argo
- OG1 – Ocean Glider Network Parameter Usage Vocabulary

↑ -- Sea temperature in-situ ITS-90 scale --

URI	http://vocab.nerc.ac.uk/collection/OG1/current/TEMP/
Identifier ()	SDN:OG1::TEMP
Preferred label (en)	Sea temperature in-situ ITS-90 scale
Alternative label ()	TEMP
Version Info ()	1
Has Current Version	http://vocab.nerc.ac.uk/collection/OG1/current/TEMP/1/
PAV Version ()	1
PAV Authored On ()	2018-05-31 16:35:24.0
Definition (en)	Temperature of the water body by CTD or STD
Deprecated ()	false
Narrower	http://vocab.nerc.ac.uk/collection/P01/current/TEMPST01/
Related	http://vocab.nerc.ac.uk/collection/P06/current/UPAA/
Date ()	2018-05-31 16:35:24.0


EGO resources

- EGO Data Exchange Format – V1.2 Processing chain - <https://www.seanoe.org/data/00343/45402/>
- Handles Seaglider, Slocum and SEAEXPLORER data
- Format checker for EGO compliance
- Community tools for QC



SEANOE Sea scientific open data edition


EGO gliders data processing chain, version 20180920_004n

Click to download the data 

Metadata:


- Date: 2019-03-08
- Author(s): EGO gliders data management team
- Contributor(s): Rannou Jean-Philippe, Carval Thierry, Gourcuff Claire
- DOI: 10.17882/45402
- Publisher: SEANOE
- Abstract: The EGO data processing chain decodes, processes, formats and performs quality control on glider data and metadata. The decoder performs the following actions for a glider deployment:
 - Decode and format the glider deployment data and metadata into an EGO NetCDF time series file.
 - Apply Real Time Quality Control (RTQC) tests on EGO NetCDF time series file.
 - For Slocum gliders, estimate subsurface currents and store them into the EGO file.
 - Generate NetCDF profile files from EGO file data and apply specific RTQC tests to them.

The decoder manages Slocum, SeaGlider and SeaExplorer gliders observations. It is a Matlab script.

Licence: 

Data	File	Size	Format	Processing	Access
version 20160420_004a		2 MB	matlab code		Access on demand
version 20171220_004a		1 MB	matlab code		Access on demand
version 20180920_004n		1 MB	matlab code		Access on demand
version 20180920_004n		2 MB	matlab code		Open access

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How to cite 

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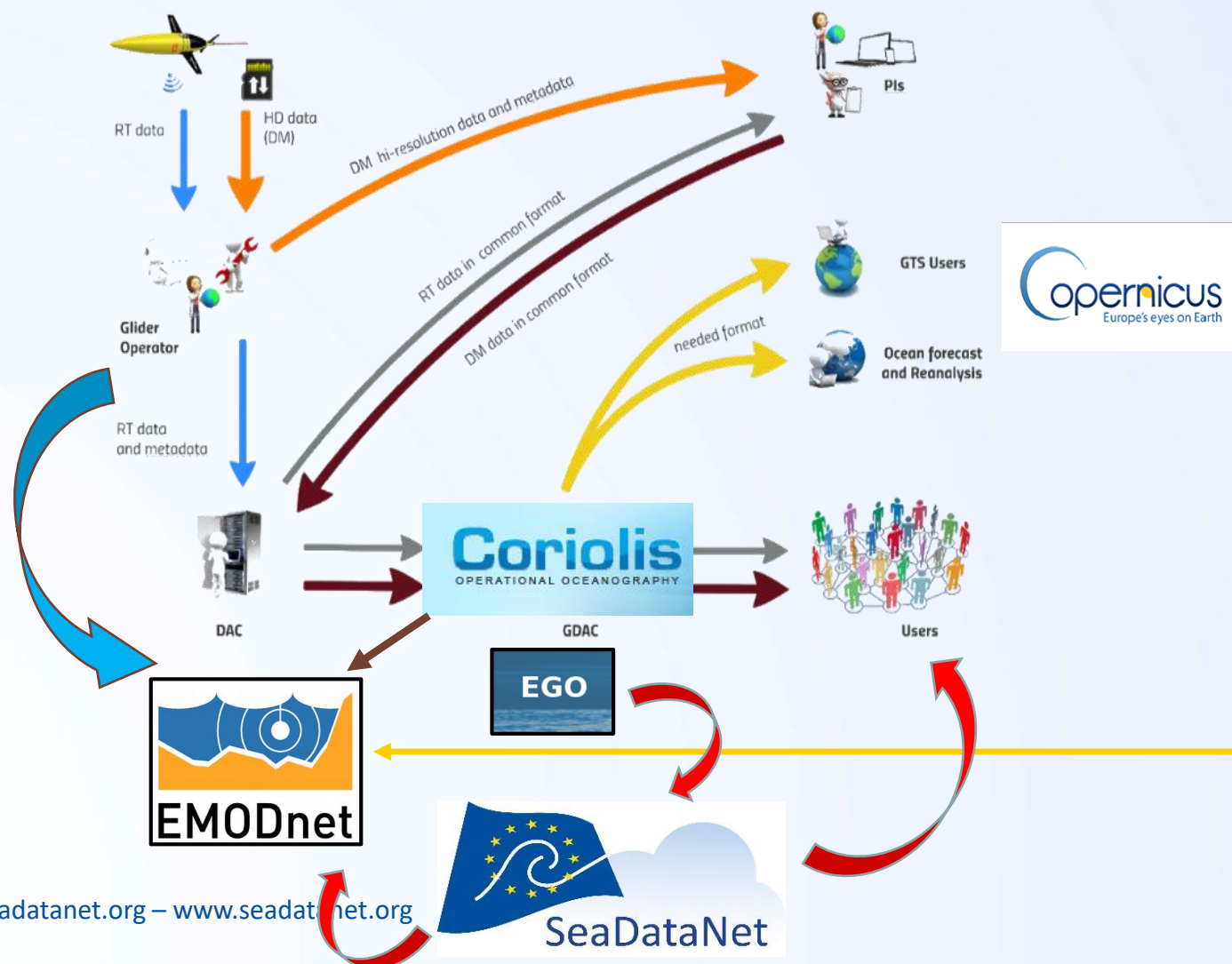
References:

- Ego Gliders Data Management Team (2017). EGO gliders Quality Control tests on timeseries and profiles data.
- EGO gliders data management team (2017). EGO gliders NetCDF format reference manual version 1.2.

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Exchange pathways in Europe



Integrating glider data within SeaDataNet

- Recommend alignment with EGO – liaise with national EGO DACs (or consider establishing one)

Handling glider data within our SeaDataNet infrastructure:

- Adopt AtlantOS recommendations:
 - Mirror the SeaDataNet Argo example
 - Coordinated pull of metadata and data from EGO GDAC
 - Delivery through SeaDataNet as SeaDataNet NetCDF and ODV

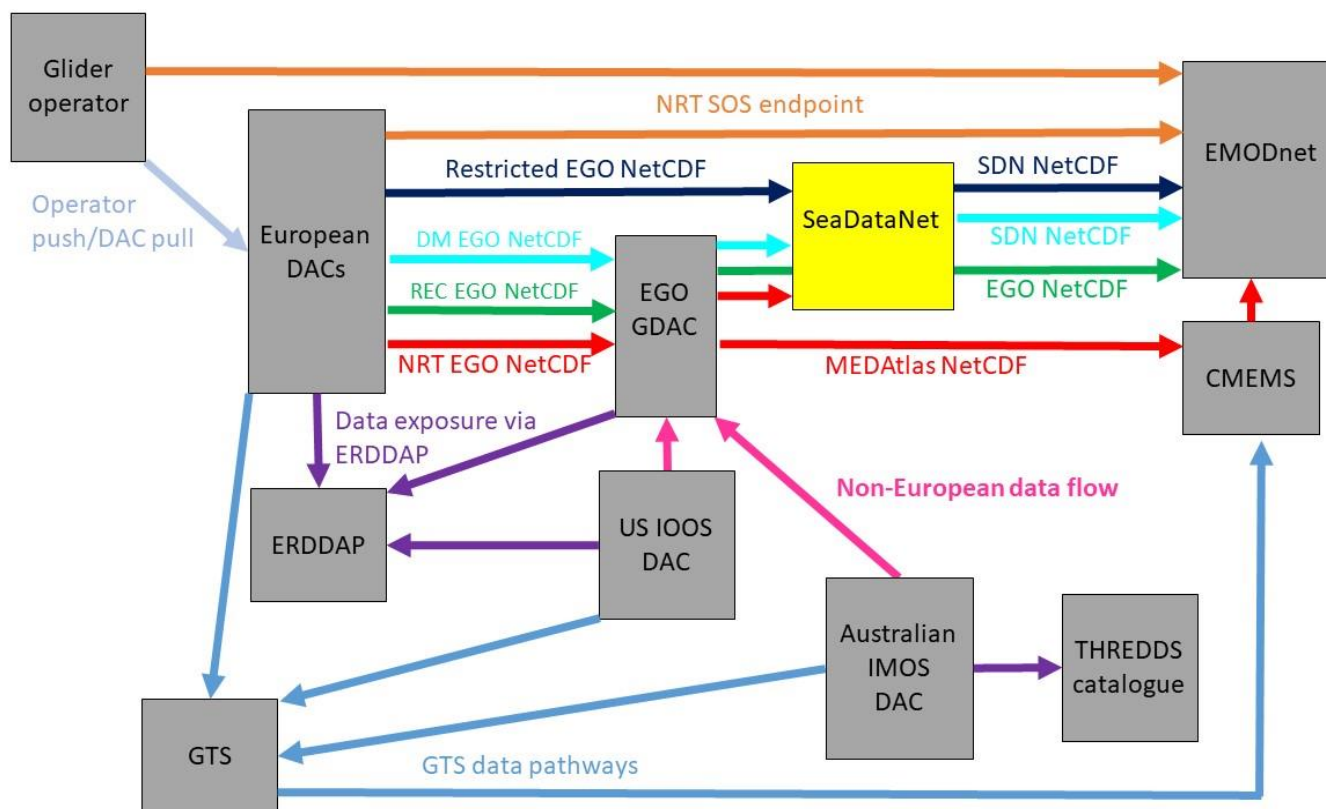
Added complexity – **restricted data**

- Propose direct feed from partners into SeaDataNet infrastructure

Integrating glider data within SeaDataNet

- EGO to CDI mapping exercise:
 - Good agreement
 - Scope for further alignment
 - Potential role for OGC-SWE (SensorML) in auto-population of CDI fields
- Promoting uptake of OGC-SWE services as an alternative pathway into infrastructure
- Enriching SeaDataNet with ‘collection level’ real time data – WP9.6

Integrating glider data within SeaDataNet



Next steps

- Close collaboration with OceanGliders to further align with SeaDataNet
- SeaDataNet partners embedded within OceanGliders Working Groups on data formats and quality control procedures
- Proof of concept assimilation of French 'delayed mode' glider data into SeaDataNet
- Continued uptake of OGC-SWE pilot schemes

