

## AtlantOS WP3.4 side meeting – Meeting Report 28/06/2016 – Keil - Germany

**Attendees :** Carlos Barrera (PLOCAN), Justin Buck (BODC), Pier Luigi Buttigieg (AWI), Claire Gourcuff (LOCEAN/CNRS), Peter Haugan (UiB), Mark Inall (SAMS), Gerd Krahmman (GEOMAR), Mathew Palmer (NOC), Steve Piotrowicz (NOAA), Marie Porter (SAMS), David Smeed (NOC), Pierre Testor (LOCEAN/CNRS), Victor Turpin (LOCEAN/CNRS)

### AtlantOS Task objectives :

- Enhance the glider community and the glider contribution to the Atlantic Observing system
- Improve & demonstrate the sustainability of the network
- Better organize the data flow and dissemination
- Highlighting our capacity to maintain sustainable observatories and contribute to high quality science

### Agenda :

- 1) Update on the ongoing tasks
- 2) AtlantOS WP7 / WP1 requests
- 3) About EGO communication issues

#### 1) Tasks avancement

- **Enhancing the glider network**

	registration	DAC	JSON production	EGO format	Diffusion to GDAC	action to take
GEOMAR	not always	Coriolis	???	ok	ok	Make sure we gather all the deployments make data and Json file up to date available to the DAC
PLOCAN	ok	Coriolis	no	no	ok	
SAMS	ok	BODC	ok	no	no	keep pushing to make UK data available
NERC/MARS	no	BODC	no	no	no	keep pushing to make UK data available
UiB	no	UiB	not yet	not yet	no	make sure the UiB is supporting his DAC rôle in the community
CNRS	ok	Coriolis	ok	ok	ok	improve automatization of Json production

Glider deployments registration : REGISTRATION IS CRUCIAL, please make sure you register your each deployment of your group : [http://www.ego-network.org/dokuwiki/doku.php?id=private:simply add a glider](http://www.ego-network.org/dokuwiki/doku.php?id=private:simply+add+a+glider)

The registration system will slightly change in the next months to make it smoother and more user-friendly, until then we stick with the actual system.

There is the possibility to link registrations between EGO and Operators/DACs.

The best way would be to connect directly the metadatabases but this is some work to consider both at the operator/DAC and the Task coordination team levels. The objective is to be at least all aware of « new activities » and it is very important to make sure that the all glider deployments of our network are registered.

**Action** : Automatic registration can be set up between “Task coordination team” and each partner or “EGO group”. **The Task coordination** team will contact you about it.

Data flow : Still missing some data (and metadata) flowing in the system (UK, Germany, Norway).

Need to better manage the metadata information (PLOCAN, GEOMAR).

Justin Buck (BODC) highlighted us on a granted project (8 months, in March 2016) including glider data processing. The issues are so likely to be solved by December 2016. On the other hand, it would be very important to have the UK glider data in the system and showcase it at the EGO meeting organized in Southampton (about 90 abstracts received, parallel workshop will be organized) and supported by our Task.

Norway : Univ of Bergen (DAC) have to send data to the national Marine Institute (reason why it is queing) – no « shortcut » option.

**Action** : Bilateral discussion between EGO data management team and each data manager to fix the remaining problems in the data flow.

Possibility to access an EGO data management package to simplify data management within each EGO Groups :

- data management best practices, → available as V1.0
- .json template → available
- EGO data format document, → available as draft V1.2
- EGO format checker → available as draft V1.2
- Processing chain → available for Slocum and Seaglider - Spray ?, SeaExplorer ?
- data policy document, → need to be done
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BODC and the the Task coordination team will try to roganize a meeting in July to speed up the process of putting the UK data in the system.

Knowledge base web page : there is a need to link with what is done in WP6.

Many tools have been developed by the glider community. A very interesting way to enhance the network would be to advertise these tools on the EGO web-page and make them accessible.

Here is a list of the existing tools developed by the community in particular in the frale work of GROOM :

- Registration tools
  - MARS system
  - EGO web page
- EGO format tools
  - Coriolis processing chain
  - EGO format checker
- QC and data processing
  - Toolbox visual QC (SAMS)
  - DMQC
  - SOCIB Toolbox
  - EGO\_plotstation (CNRS)
- Piloting and visualization tools
  - GFCEP/EGO\_plotstation (CNRS)
  - 
  - IGLOO (HZG)
  - path planning (CNRS, CMRE, HZG,...)
  - Norwegian piloting tools
  - UEA piloting tools (coming)

- OSSE
  - glider simulator SIGLIG (CNRS)
  - piloting optimization (SEEP)...
- Maintenance database and reportingtools (CNRS)

**Action** : Each developer of the AtlantOS partners should send us few lines about its tools and give us the URL of a repository or another mean to have the software tool publicly available ideally through a versioning system (subversion, github,...). We will gather all this information on the EGO web site on a dedicated webpage.

Is there a need to adopt the same versioning system ? This would certainly help with further developments but would be a kind of constraint. This would need to be discussed with the community at a larger scale.

**Action** : Survey on which tool we want to open source and on the versioning system that fit our purpose.

#### New EGO Groups :

- Brazil / PROOCEANO
- Canadian / Takuvik
- CMRE
- OTN/EATN : hydrophones in link with tracking animals. Volunteers ?

**Action** : Pierre Testor will ask the Canadians (Dahalousie Univ.) about documents and send them to the AtlantOS glider community so that volunteers can pop-up.

#### How to involve non European partners ?

Involvement of non European partners is a key issue in the framework of AtlantOS, but also in the purpose of monitoring the glider activity at the global level. As a legacy of the EGO COST Action contacts have been made at a global scale but there was a need to further develop this. The setup of the international glider steering team and the glider data management team under the auspices of WMO/IOC JCOMM will allow to make progress. The set up of a EuroGOOS Glider Task Team will help to linkage with other glider teams in EU.

The EGO meeting in Southampton will be the opportunity to organize the first meetings of those JCOMM teams.

OSSE design and data management are great issues to bring the community together.

- **Estern Boundary survey**

Deliverable due in sept 2018. GEOMAR is leading. A post-doc will start soon on that subject (advised by Gerd). An option is to demonstrate how endurance lines can be useful for monitoring Eastern boundary areas. In that context, some “endurance lines” like Senegal studies (some repeat-sections during few months) could be added to the study.

- **Endurance lines**

Carlos Barrera presented the «Macaronesian Ocean Observing System» and its perspectives:

- ESTOC Observatory – 3 weeks seasonal mission - T, S, O<sub>2</sub>, turbidity, chlorophyll-A - partnership with IEO. This supports Fix03 project – Intercomparison with data gathered by other autonomous platforms (i.e. moorings)

- Madera – Canarias 7 weeks duration – expected twice a year - same parameters + OOM - collaboration with Portuguese and Spanish armadas for deployments/recovery operations.

- New lines in collaboration with INRH (Casablanca, Morocco) – 3 possible transects

Canaria – Agadir/Laayoune/Dakhla under study – Contact INRH= Karim Hilmi.

Mark Inall presented SAMS endurance lines :

2 repeated sections between Greenland and Scotland, and along AR7W, + Island-UK (once a year) – collaboration with US. Also, some repeated sections around Scotland and on the shelf west of France.

- **Glider App'**

For outreach purposes. On progress with Lovro Valcic. We have to identify who we are targeting and which outreach purposes do we adress. There is a WP dedicated to outreach in AtlantOS and we will have to work closely with them on that particular subject.

We will also need testers : SAMS, CNRS volunteers.

Map displays showing the glider activity on mobile devices could definitely help with the outreach. It will be based on the EGO data format and pull data from a GDAC repository. It will help to diagnose issues on the data flow.

## 2) AtlantOS WP7 / WP4 requests

It is certainly crucial to link WP3 “Autonomous platform network enhancement” and WP7 “data management and integration” in the framework of AtlantOS but it is also very important in the framework of EGO and more global activities. As the Atlantic glider network, we can pave the way linking with WP7 at three stages :

- **Contribute to the AtlantOS Catalogues**

Coriolis (our GDAC) is managing AtlantOS Catalogue through indexation of the data sets they are gathering. This index files are used to feed monitoring tools (Key Performance Index, maps, time series...) As soon as our data flows to the GDAC we will be able to access and develop these tools. Data flow is crucial for the future.

**Action** : Define how we can efficiently monitor our network (maps, KPI, time series...).

- **DOI (Digital Object Identifier)**

DOI are particularly useful for :

- **Identification** : enable reliable and durable citation of a data set
- **Access**: provide data access means (direct link, form, email ...)
- **Traceability**: simple and reliable monitoring of the use of data to develop infrastructure
- **Reproducibility**: if the data set is changing, provides the reproducibility of an experiment and ensures the credibility of the study

SAMS, GEOMAR, Dan Hayes have already assigned DOI to their data through their own (Institutional) policy. Duplicate efforts should be avoided. And it is very important to have a common DOI management in the framework of our community. Through AtlantOS, GDAC (Coriolis) is willing to manage DOI assignation and the setup of landing pages and to follow the policy we will set up. T

At the moment, the proposal DOI policy is the following :

- One DOI per deployment with an updated key for the versioning (near real time, delayed mode)
- Upper level DOIs for datasets related to « projects » in a broad sense (endurance lines,

observatories/areas, process studies,...)

**Action** : Enlarge the common agreement on the DOI policy with EGO Groups. Validate the DOI policy with Thierry Carval. Email EGO Group leader to make the policy proposal. It should then be discussed at the international level (JCOMM).

- **Sensor Web Enhancement**

WP7 is working on Sensor Web Enhancement project that aims to better manage metadata. From our point of view, the development made by GDAC on that subject highlights the necessity of a well organized metadata management.

Our network agreed on .json files to manage the metadata. This .json file is used by DACs to produce EGO format. The connection between .json and SWE objectives are obvious and our community will have great advantages of the GDAC developments with data flowing in the EGO format to the GDAC.

The metadata management has to be set up between PI/Operators and DACs. A data management package is downloadable on the EGO website to simplify DAC work.

**Action** : see with Thomas Loubrieu (WP7) how they will benefit of our EGO format (or .json files) for the purposes of SWE.

- **Links with WP1 « Requirements and design studies »**

WP4 is planning OSSE. In that perspective we will have to provide endurance lines plans for the next years.

The glider network has some very good assets for such studies. Endurance lines can be easily planned and the development of a glider simulator is a great tool for such studies.

The plan we have to provide will be based on realist perspective of endurance lines development. Also, it can be very interesting to link with US/Canadian glider team through such studies. This studies could also contribute to task 3.4 (Eastern Boundary Survey).

**Action** : Design OSSE for endurance lines in agreement with PLOCAN, SAMS and US/CANADA glider teams and others.

### 3) About EGO communication issues

- **Newsletter**

It appears that communication within the EGO community is not good enough. We don't really know what all the EGO groups are doing. A seasonal news letter would be a good idea to advertise about each others work.

It has been agreed that the first EGO newsletter will be tested in the framework of AtlantOS and then open to the whole EGO community. The Newsletter will be an email with each EGO groups basic news (a few lines and a link to a web page with more information). The newsletter will also put forward glider team publications. EGO coordination team will send an email to each EGO groups for that purpose two weeks before the release.

The first issue will be released in mid September (before EGO meeting).

**Action** : one draft before mid-september (inputs needed on 1st of September). List each contributor to put pressure ?

**Tweeter communication policy :**

The task coordination team has created a Twitter account « Gliderman » « @ego\_gliderman »  
Here is a proposition for our Twitter policy :

- @ego\_gliderman will tweet on any information, meeting, event related to the glider community.
- @ego\_gliderman will retweet any message from EGO groups followers that concerns glider activity of the network.