

Main facts, decisions and conclusions

- Creation of a new WG on fostering African countries participation created. Led by Karim;
- Creation of a new WG on disaster Risk reduction created. Led by Nadia Pinardi;
- WG on products to be implemented during next year. Led by Giovanni;
- WG on models renovated. Pierre Garreau leader. Georg co-chair;
- Strategic plan for 2015-2018 accepted without changes;
- An amendment of the MoA was approved and the two co-chairs will follow for another 3 year period;
- DHI accepted as new associated member;
- MONGOOS-REMPEC agreement already signed;
- MONGOOS will have a representative in each EuroGOOS Task Team;

Action list

- Presentations of the Sea Level forecast workshop to be uploaded to the MONGOOS web page (Susana);
- Effective set-up of WG on fostering African countries participation (Karim)
- Effective set-up of WG on modelling (Pierre and Georg)
- Distribute MoA with approved amendment and upload to web page (Enrique and Susana)
- Upload Strategic Plan to web page
- Upload DHI info to MONGOOS web page (Susana)
- Co-chair to give another try with DG-mare and the Lecce declaration (co-chairs);
- Copernicus information to leave projects section on MONGOOS web page and to be incorporated in a new Services section (Susana);
- MONGOOS will try to refresh the scientific plan originated in MOON. Start by deciding a drafting group (co-chairs to establish a drafting group);
- All members to provide Giovanni information, if available, on National Maritime Clusters contacts;
- WG on products to be established (Giovanni)
- Disseminate and organise an EGU session on Marine Pollution Assessment, predictions and risk Mapping (Giovanni);
- Increase the number of participants in the DRR WG (all community, Nadia);
- Present a draft strategy for DRR by 2016 (DRR WG);
- Organise a workshop in next MONGOOS meeting on advances in circulation modelling coinciding with next annual (Co-chairs)
- All partner to share ideas about new possible associated partners (all-partners);
- Determine MONGOOS representatives on EuroGOOS Task teams and establish terms of reference for this collaborations (co-chairs);
- Explore possibilities of obtaining money through COST action to support MONGOOS. Deadline Feb 2016 (co-chairs);
- Hrvoje Mihanovi to provide contacts on Croatia tide gauges in order to explore inclusion in MONGOOS showcase tool and data center (Hrvoje Mihanovi);
- Lecce declaration to be uploaded to web page (Susana)
- EuroGOOS publication (data WG, modelling WG, co-chairs)

Day 1

WELCOME SPEECH BY JOAQUIN TINTORÉ

Next decade will be the time to integrate information to understand Ocean variability at Meso and sub meso-scale. All temporal and spatial scales have to be integrated, understanding the non-linear interactions. This implies a change of paradigm to a multi-platform approach.

Different examples of relevant results from SOCIB were presented (gliders, Rissaga alert system, etc...);

PRESENTATION OF 2015 ACTIVITIES BY THE CO-CHAIRS

Activities presented. Powerpoint will be distributed via MonGOOS distribution list.

PRESENTATION OF THE LECCE DECLARATION

Lecce Declaration, which was already submitted to MONGOOS members, has been reviewed. MonGOOS community fully subscribes the declaration. During the discussion it was pointed that it takes time for this kind of documents to have an impact.

Lecce declaration will be uploaded to MONGOOS web page.

PRESENTATION OF THE 2015-2018 STRATEGIC PLAN

The strategic plan, already submitted to the members, has been discussed. A discussion was established about the need of a scientific plan. There is a clear need of this plan, but we have not yet designed a drafting group.

DHI PRESENTED ITS CANDIDATURE TO BECAME AN ASSOCIATED MEMBER

DHI presented its activities in the area, which includes several projects in the Northern African countries. The participation of DHI as associated member has been unanimously approved.

GIOVANNI PRESENTED ADVANCES IN NEW WORKING GROUP FOR PRODUCTS.

The group has not been yet established. Several advances done in this way, for example contacts have been established with maritime clusters

NADIA PINARDI PRESENTS NEW DISASTER RISK REDUCTION (DRR) WORKING GROUP:

As a result of the MONGOOS workshop on sea level forecasting it was established the need of creating a MONGOOS WG on DRR. Conclusions and highlights from the meeting were listed. Amongst many others:

- Importance of a complete multi-hazard tide gauge network;
- importance of connecting with scientific results from climate change studies;
- Connection with NEAMTWS
- Need of additional R&D on waves-ocean-atmosphere-sediments fully coupled modeling;
- Connect with EuroGOOS TG task Team.

A working group on DRR has been established, leaded by Nadia Pinardi and with initial participation (to be extended) of Enrique Alvarez, Begoña Pérez and Joanna Saulter (HZG)

PIERRE GARREAU PRESENTED THE RENOVATED MODELLING WG

Several new ideas presented for a renovated WG:

- Analyses of gaps and processes
- EuroGOOS publication
- A session devoted to circulation (TS modeling) for the next MONGOOS meeting.
- Define roadmaps for future developments

It will be leaded by Pierre Garreau, and co-chaired by Georg Umigiesser. Participation of Francesco Trotta (UNIBO) and Stefania Ciliberta (CMCC) also accepted

DATA WORKING GROUP PRESENTATION

Presentation done by Leonidas. Amongst others novelties:

- Puertos del Estado improve tide gauges with VSAT and GPS. New Meteorological stations with high frequency pressure sensors.
- SOCIB, 200 days of glider, new tide gauge
- 2 new buoys in Gulf of Trieste, Slovenia.
- New tide gauge in Malta
- HCMR: 5 new ARGO floats and two gliders will be delivered in 2015
- IOLR has 3 new gliders

Several advances in the MONGOOS data center were presented. Many data sources detected that still not integrated.

EUROGOOS ACTIVITY UPDATE

Present EuroGOOS structure explained, including newly formed Task Teams.

PRESENTATION OF PROJECTS

1. EMODNET Physics, Patrick Goringe

Actual situation presented. Several issues still not solved: engaging data originators, build more products, connecting more historical data, etc...

2. The iCoast project: Agustín Sanchez-Arcilla

The Project describes all the marine processes from large scale to coast line evolution. It includes working with wave and atmospheric models, coupled with morpho-dynamic models. Several beaches instrumented. An Alert system for a railway line close to the coast that is suffering wave overtopping was implemented. Ensemble of wave model introduced to improve accuracy.

3. Copernicus: Giovanni Coppini

Service maintained from MyOcean to Copernicus. The different components of the system were explained.

4. Mediterranean satellite ocean color and SST information.B. Buongiorno

CNR is in charge of the Copernicus Service. A description of the service was provided, including NRT products and reprocessed data sets. There is concern about the limited R&D budget in CMEMS for this task.

5. Jerico-Next: Leonidas Perivoliotis

The project is focused on coastal processes and interactions between physics and biogeochemistry. WP and main objectives have been described in the presentation.

6. Jerico-Next OSSE: Tomislava Vukicevic

Activity on data assimilation of HF radar.

7. RITMARE:

The RITMARE is described: Italian project 2012-2016. It is being Co-ordinated by CNR. Objectives were introduced. These are related with integration of networks, impact of CC and others. Activities in modelling, gliders, etc...

8. MEDESS-4MS and RAOP-MED: George Zodiatis

Multi-model approach to provide support to decisions maker in oil spill crisis fully developed. Around 28 different forecasts have been harmonised. Experiments with different models and resolutions carried out. RAOP-MED will generate a holistic study of risk associated to oil spills. George informed about interesting new dispersant products available in the market now.

9. PERSEUS: Joaquín Tintoré

Perseus goes from basic science to policy. It is a very wide project: help developing MSFD, smart monitoring, support non-EU countries...Results presented cover a large variety of topics, from multi-parametric moorings, to harbour water quality control. An important success has been the coordination of the different oceanographic existing sections. VMS has also been co-ordinated.

10. EUROARGO:and MEDARGO Pierre-Marie Poulain

Today around 4000 floats worldwide (750 European). EuroArgo developed mainly in 2 projects. EuroArgo costs 8 ME per year. It is expected to get sustained EU funds in the order of 3 ME. This year, via Atlantos, 1 ME was obtained. Also budget was obtained via MOCCA. In 15 years we have deployed 250 floats in the Mediterranean. Additionally, the floats have more and more sensors. 100 active gliders in May 2015. Some of the floats are really expensive (up to 80 KE) and are being recovered today in some cases. In the future it is important to sustain this network at the present level.

11. FixO3: Vanessa Cardin

The main objective is to integrate 23 European Fixed observatories. Key word is harmonization. FixO3 is in charge of collection of information and definition of the state of the art of hardware and software elements. Harmonization of data quality. Visualisation of all data collected at the observatories.

12. DEFISHGEAR: Svitlana Liubartseva

Project related to the modelling the plastic drifting in the Adriatic Sea. It is based in the use of Medslick, ECMWF and AFS. Particle half-life has been computed in the Adriatic in 44 days. In the global ocean is 90 years. Maps of average concentration computed. Areas of larger fluxes of plastic computed. Specific study cases are also computed. For example plastic generated at a specific point have certain probabilities to arrive to a given location positions.

Day 2

PRESENTATION OF MEDECC (MEDITERRANEAN EXPERTS FOR CLIMATE CHANGE). JOEL GUIOT (DIRECTEUR DE LA FÉDÉRATION DE RECHERCHE ECCOREV)

The Med Sea is an area of large vulnerability to CC. There are multiple drivers for change: acidification, invasive species, pollutants...

MEDECC is a group of experts for climate change for Mediterranean basin. The main goal is building an interface between science and policy. The objective of the talk was to invite MONGOOS partners to participate in this group.

MedECC is an initiative by some individuals (bottom-up). All is open to be discussed. The objectives include identifying gaps, promoting cooperation, etc...

No funding at the moment. Experts are chosen on scientific credentials.

Interested people are asked to connect with Joel: guiot@cerege.fr

NEW PROJECTS IN HORIZON 2020 AND REGIONAL PROGRAMS: PRESENT STATUS AND FUTURE OPPORTUNITIES. GIOVANNI COPPINI (CMCC)

Several calls presented (all details on the ppt, soon at MONGOOS web page):

- Technical support for Lebanon oil and gas activities;
- Interreg Maritimo Italy-France;
- Projects in the context of the Integrated Maritime Policy in the Black Sea and /or Mediterranean Sea regions;
- CMEMS (Copernicus evolution call). Service Evolution of the Copernicus Marine Environment;
- Monitoring System. There is a planned call on service uptake;
- COST new open call: European Cooperation in Science and Technology;
- Call for experts to support cohesion policy, regional and urban development;
- ERANET co-fund on Marine technologies;
- Multi Use of the oceans marine Space, offshore and nearshore: compatibility, regulations, environmental and legal issues;
- Multi Use of the oceans marine Space, offshore and nearshore: enabling technologies;
- Interaction between people, oceans and seas: a strategic approach towards healthcare and wellbeing
- Blue green innovation for clean costs and seas.
- Towards and integrated Mediterranean observing system. Mongoos is present on the drafting group and will try to broad the participation of Mongoos partners under objective selection criteria.
- Support of the BlueMed initiative: coordinate of marine and maritime research and innovation activities in the Mediterranean
- Novel in-situ observation systems
- European data hub of the GEOSS information system
- Situational awareness systems to support civil protection preparation and operational decision making
- European Research Nights
- Integrating activities for advanced communities

PARTNER ACTIVITY: RECENT DEVELOPMENTS AND FUTURE PLANS (10 MINUTES PRESENTATIONS)

- Diurnal Cycle of the Sea-Surface Temperature in the Mediterranean Sea, impact on heat budget, modeling and in situ observations, Vincenzo Artale, ENEA

Evaluation of the impact of the diurnal warming via models and satellite is being carried out. Models with satellite data combined to explore the diurnal cycle. Additional work in Turbulence regimes; global turbulence maps (Rupolo ratio) presented combining ORCA data and drifters

- ISPRA marine operational observation (projects and perspectives), Marco Pinone, ISPRA

Ispra is national data providers of waves and sea-level since 1989. Three main networks, tide gauges, buoy for waves and Venice system. 15 buoys and 35 tide gauges.

System is at risk due to the lack of public funding. All buoys are today out of water. Only 24 tide gauge stations are available. Model validation/calibration is lost.

Italian Ministry of economic development and Italian ministry of transport are presenting proposals for new funding.

- Med-MFC Ocean forecasting system for physics, E. Clementi

2 products are available: analysis and forecast. The system includes ECMWF forcing, 2 way coupled with waves (WAM), 3D variational data assimilation scheme. Altimeter data assimilated, as well as ARGO and other sources. Amongst other, the following future changes are expected: increase of resolution to 1/24 and tides (in the long term).

- Med-MFC Ocean forecasting system for biogeochemistry, S. Salonor G. Cossarini

Product is produced twice a week. It consists in 7 days of analysis and 10 of forecast. BIO model has more than 15 variables. V3 will include data assimilation from satellite observations (Chlorophyll). There are ongoing developments of new validation procedures for operational products.

- Med-MFC waves preliminary results, G. Korres

Wave forecasting will be a new component of the system. It will use WAM 4.5.4. fully parallel model at 1/24 resolution. ECMWF forecast. Nested in Atlantic model. For wave analysis data assimilation will be included. First operational version will be available in 2018. Wave spectra at predefined points will be provided as a product. Importance of the Atlantic waves entering the Med has been evaluated.

- Recent advances in using HF radar current measurements in the eastern Adriatic. Hrvoje Mihanović, IZOR

IZOR operates 2 WERA stations. Comparisons were established with ROMS model and ADCP data. There is an Interference accepting the signal during the daytime. A lot of civil works were carried out to implement properly the system. A storm destroyed many of the antennas. Good correlation with ADCP. In summer differences increase, but ADCP is not really measuring on surface layer.

Another work presented is related to the use of SOM and neural networks methods with HF radar data and relate these measurements with the modelled winds. Based on that analysis the team was able to prepare a forecast system.

- The spanish Institute of Oceanography observing system un the Mediterranean sea, R. Balbin, IEO

IEO maintains several oceanographic sections since the 80's. Ecosystem sampling of these sections is an added value when compared with data obtained by gliders. All the collected data is incorporated in Seadatanet. In parallel, data is accessible at www.ba.ieo.es/ibamar. RADMED and

RADIALES are included in the proposal of monitoring programs, as multipurpose platforms for the implementation of the MFSD. Tide gauge network presented. Tide gauge stations time series are long (since the 50s).

- Recent advances in the NW Med modelling (Spectral nudging, On-line zoom, deep convection simulation), P. Garreau, IFREMER.

There are several administrative ways that are being explored to maintain the PREVIMER activities (i.e. integration in Mercator). Data and visualisation tools will remain available in the meanwhile. Spectral nudging results were presented. Experiments with AGRIF zoom presented. Experiments show improvement in Mesoscale and submesoscale simulation, now included in the models.

- Ocean predictions and applications at CMCC, Giovanni Coppini, CMCC

Sea conditions presented by means of two promotional videos.

- Recent advances in the Operational Oceanography projects (OPERA, SAFEPORT, SAMPA-2) at Gibraltar Straits, Enrique Alvarez, Puertos del Estado

HF radar integrated with model. New instrumentation in the area, including 4 ADCP. New models for waves circulation and wind. New downstream tools.