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Report on Activities for MONGOOS 2012

1. Contact

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2. MONGOOS purpose and members

The Mediterranean Operational Network for the Global Ocean Observing System ("MONGOOS") Memorandum of Agreement (MoA) was established in 2012 with the signature of the MONGOOS MoA. MONGOOS is joining the effort of MOON and MEDGOOS networks and respective Memorandum of Understanding (MOU).

The purpose of the MONGOOS MOA is for the Members to:

(a) collaborate to further develop operational oceanography in the Mediterranean Sea by integrating their activities under the name of MONGOOS;

(b) supplant the MOON and MedGOOS MoUs, building on and integrating their core mandates;

(c) promote partnerships and capacity building for GOOS in the Mediterranean Sea; and

(d) elaborate a continuous working framework with EuroGOOS and GOOS Africa in order to define common roles and activities in the

Mediterranean Sea, and foster collaboration with Black Sea GOOS and global ocean GOOS initiatives.

The Table below contains the MONGOOS Members list.

n	Country	Institute
1	Croatia	IOF
2	Croatia	University of Zagreb
3	Cyprus	OCY- University of Cyprus
4	France	Ifremer
5	France	Mercator Ocean
6	France	Météo-France
7	Greece	HCMR
8	Greece	Univ. Athens
9	Greece	Univ. Thessloniki
10	Greece	IASA
11	Israel	IOLR
12	Italy	CMCC
13	Italy	CNR-ISSIA
14	Italy	CNR-ISMAR
15	Italy	CNR-IAMC
16	Italy	CNR-ISAC
17	Italy	ENEA
18	Italy	INGV
19	Italy	OGS
20	Italy	Dipartimento di Fisica, UNIBO
21	Malta	UMT.IOI.POU
22	Montenegro	IMB
23	Morroco	INRH
24	Morroco	ICZM Mohamed V Univ
25	Slovenia	EARS
26	Slovenia	NIB
27	Spain	IEO
28	Spain	Puertos
29	Spain	CSIC
30	Spain	SOCIB
31	Spain	UPC
32	Turkey	IMS/METU

3. Objectives of MONGOOS

MONGOOS shall engage in activities related to the production and use of operational oceanography services ("Services"), as set forth in Annex II of the MOU (Activities)[1], in furtherance of four principal objectives:

(a) Improved Fitness for Purpose. Continuously advance the scientific understanding and technological development upon which the Services are based.

(b) Greater Awareness. Promote the visibility and recognition of the Services with governmental agencies and private companies, encourage their integration at national, regional, European and global levels.

(c) Increased Downstreaming. Enhance the usability of the Services and their usefulness for policy implementation, societal needs and science.

(d) Improved Capacity. Support the planning and implementation of international initiatives involving operational oceanography and promote the participation of non-EU Mediterranean countries in producing the Services.

4. Main achievements during the last year

a. Operational Services

MONGOOS system has consolidare all the following services:

a. Ocean Nowcasting/Forecasting Centers

- MFS- Mediterranean ocean Forecasting System
- Mediterranean Sea Monitoring and Forecasting Center (MyOcean)
- Mercator Ocean
- Poseidon Ocean Forecast
- Adriatic Sea Forecast system
- Sicily Channel Forecasting System
- Western Mediterranean Forecasting System
- Tyrrhenian Sea Forecasting system
- Oristano Coastal Waters Forecasting System
- Alermo Forecasting
- Southeastern Levantine Shelf Model
- Cyprus Coastal Forecasting and Observing System
- ROSARIO-II Malta Shelf Forecast
- ESEOO circulation forecast system
- Puertos del Estado Sea level forecast system (Nivmar)
- PREVIMER coastal observations and forecasts
- Cilician Basin Forecasting System
- Northern Levantine Forecasting System

[1] Activities of MONGOOS are copied in Addendum 1 of this report

- OPA-BFM ecosystem forecast
- KASSANDRA Storm Surge Modelling System

b. Observational and atmospheric forecast components

Atmospheric Forecasting Centers

- SKIRON Mediterranean atmospheric forecast
- SKIRON Mediterranean dust forecast
- Meteo-France forecast
- USAM forecast

Observational System Centers

- Mediterranean Volunteer Observing Ship Program
- MEDARGO
- Coriolis Center-Mediterranean real time data
- MedGLOSS (operational stations in Israel, Malta and Cyprus)
- Poseidon observing system
- Satellite SST and Color
- Satellite Altimetry
- Cretean Sea Buoy
- Adriatic Sea Buoy
- Ligurian Sea Buoy
- MedGOOS-3 Ocean Observatory Station
- Puertos del Estado observational real-time networks
- Mediterranean Surface drifter program
- CALYPSO HF radar system in Malta Channel
- MyOcean Mediterranean In situ TAC
- MyOcean Ocean Color Mediterranean TAC
- SeaDataNet

C. Downstream Services

- Medslick
- UVT User Visualization Tool
- FOS Fishery Observing System
- Seasonal probability dispersion maps from numerical models
- Mediterranean adjusted heat fluxes

b. Main activities

MONGOOS was established in 2012 with the signature of the MONGOOS MoA on the basis of the activities and MOU of MOON and MEDGOOS. During 2012 the MONGOOS MoA was finalized and signatures from partners were collected. The firs Assembly was held in Rome on 13-14 September 2012. The two new co-chairs, Enrique Alvarez Fanjul (Puertos) and Giovanni Coppini (CMCC) were elected by the Assembly in Rome. The MONGOOS bureau have been established with the previous MOON and MEDGOOS co-chairs and secretariat (Nadia Pinardi, Pierre Bahurel, Kostas Nittis, Aldo Drago) and with the present MONGOOS co-chairs.

During 2012 MONGOOS main activities were the following:

- Improve and implement the operational MyOcean V2 Core Service
- Consolidation and upgrade of MyOcean Mediterranean In Situ TAC
- Further development of the MyOcean Cal/Val service with support of MOGOOS members
- Further development of MyOcean OC TAC
- Contribution the ECOMF development
- Enforce the relationship with JCOMM
- Development of the NICOSIA declaration for the consolidation of the relationship of EUROGOOS-MONGOOS and ECOMF
- Collection of the signature of EUMETNET-MOON MoA
- Establish the MEDSLIK-II Agreement and launch the model web site.
- Contribute to the EEA GMES In Situ data program and start the discussion on the EEA&EUROGOOS agreement
- Contribution of MOON to EEA indicators for EEA Climate Change impacts report (2012)
- Start new projects: MyOcean II, Perseus, MEDESS4-MS project, Ionio, TESSA.
- Prepare the new proposals: call Env (i.e. Hydrological risk, new sensors), call space (i.e. GMES downstream), Programmed Consolidation call
- Maintained dialog with HYMEX program
- Contribute to the Marine Research Infrastructure initiative
- Finalize the process to sign a new MONGOOS MoU and organize the first Assembly in Rome
- Consolidate the relationship with IOC
- Consolidate the relationship with EUROGOOS: MOON and MEDGOOS chairs and then MONGOOS co-chairs have contributed to the EUROGOOS development and have participated to the EUROGOOS board meetings

c. Agreements

The rights and obligations of each Member under pre-existing MOON and MEDGOOS agreements shall survive the effectiveness of MONGOOS MoA, in particular MOON DEA, REMPEC-MOON and MOON-EUMETNET.

MONGOOS operational partners have continue to use the governance system built on the Data Exchange Agreement (DEA). The DEA has the aim of harmonising and securing the flow of data within this network in order to deliver regular and systematic products on the state of the Mediterranean Sea and its sub-regional areas. MONGOOS DEA continues in consolidating the operational functioning of MONGOOS MCS and Member State services. MONGOOS DEA partners exchange data and products in operational mode.

MOON DEA partners are the following:

1. INGV

2. MERCATOR OCEAN
3. IFREMER
4. CNRS-POC
5. University of Athens
6. Hellenic Center for Marine Research (HCMR)
7. IOLR
8. Cyprus Oceanography Center
9. University of Malta, IOI – Malta Operational Centre, Physical Oceanography Unit – (UMT.IOI.POU)
10. ENEA-Santateresa, La Spezia
11. OGS
12. CNR-ISAC
13. IASA
14. Puertos del Estado
15. CSIC
16. LIM-UPC
17.NIB
18. CNR-IAMC
19. IMS-METU

MONGOOS and REMPEC established a collaboration agreement in April 2009. MONGOOS partners and REMPEC entered into the Agreement with a view to ensuring maximum coordination of the work and activities of REMPEC and MONGOOS in respect of oil spill activities in the Mediterranean. The MONGOOS-REMPEC agreement has been in force during 2011 and partners are:

1. Istituto Nazionale di Geofisica e Vulcanologia
2. Cyprus Oceanography Center, University of Cyprus
3. Hellenic Centre for Marine Research, Institute of Oceanography
4. MERCATOR OCEAN
5. University of Malta, IOI – Malta Operational Centre, Physical Oceanography Unit
6. Institut français de recherche pour l'exploitation de la mer
7. Istituto Nazionale di Oceanografia e di Geofisica Sperimentale
8.Consejo Superior de Investigaciones Científicas
9. Ente per le Nuove Tecnologie, l'Energia e l'Ambiente, Dipartimento Ambiente, Cambiamenti Globali e Sviluppo Sostenibile
10. University of Athens, Division of Physics of the Environment – Meteorology
11. Consiglio Nazionale delle Ricerche, Istituto di Scienze dell'Atmosfera e del Clima
12. Israel Oceanographic & Limnological Research
13. Institute of Accelerating Systems and Applications, Atmospheric Modelling and Weather Forecasting Group
14. Consiglio Nazionale delle Ricerche, Istituto per l'Ambiente Marino e Costiero
15. Institute of Marine Science – Middle East University

MONGOOS-REMPEC agreement partners constituted the Emergency Response Office (ERO) to support REMPEC in responding to emergencies and carried out MOON-REMPEC agreement activities. During 2012 MONGOOS Italian partenrs have provided support to the Italian Coast guard and Civil protection during the Costa Concordia Accident and relevant information and daily bulleting have been regularly sent to REMPEC.

A new MONGOOS&EUMETNET MoA has been approved where the MONGOOS Members will endeavour to:

a) share information and outputs of their respective activities for the purpose, and within the scope, of this Agreement, subject to arrangements as may be necessary for safeguarding confidential information;

b) utilise the MONGOOS Members' expertise in the activities which are regularly carried out by EUMETNET (e.g. training, organization of workshops and conferences);

c) collaborate in the development of projects for the implementation of the MOON/E-SURFMAR Science and Strategy Plan (Annex B);

d) cooperate to disseminate MONGOOS data in the GTS in real-time through the network of national meteorological centres and receive GTS data from them;

e) collaborate to improve observational data quality control systems and improve the existing network: E-SURFMAR should make available Quality Control tools to MOON members to monitor in near real-time the quality of measured parameters by each platforms.

The MONGOOS-EUMETNET Science and Strategy Plan has also been written in support of the MoA.

The MONGOOS-EUMETNET agreement signature has been collected and the agreement should be enter into force in 2012.

5. Plan for next year

- Finalize the development of the Mediterranean Operational Network for the Global Ocean Observing Sytem (MONGOOS) Memorandum of Agreement, by establishing the Executive board and scientific and technical working groups. Launch the new MONGOOS website.
- Define the entrance of private companies into MONGOOS as associate members
- Start the MoA between EUMETNET and MONGOOS Members
- Promote the exchanges with UNEP/MAP to contribute to the UNEP/MAP future reports
- DEA relationship with third party data providers should be clarified: Meteo offices and Southern Med Countries, MONGOOS should open the DEA data to be accessed by third parties, not only MONGOOS members.
- MONGOOS-REMPEC agreement: enhance the relationship between MONGOOS partners and National oil spill monitoring and forecasting systems also with the support of MEDESS4MS project.

- Consolidate the relationship with EMSA
- continue the activities with EEA both for indicator development and for GMES in situ activities.

6. Relation to major projects

MOON partners are participating to the following projects:

- SEADATANET-II
- PERSEUS
- ETC-Water
- ETC-ICM
- EuroSITES
- EuroARGO
- MyOcean2
- JERICO
- EMSO
- MEDESS4MS
- IONIO

7. Challenges and problems

- Clearly understand and quantify uncertainty is the next frontier: ensemble methods should be used, as well as comparison with independent data
- The relationship between the European Service (ECOMF) and the national services must be consolidated (Nicosia declaration)
- Consolidate the ECOFM plan
- MONGOOS observing system should be continuously upgraded and sustainability should be ensured.
- Entrainment and collaboration with North African countries should be a focus

Addendum 1

MONGOOS Activities

1. General
    (a) Organise user forums and stakeholder consultations to assess policy implementation impacts and societal needs, and to ensure the usability of the Services;
    (b) Increase the free and open access to operational oceanography products for the entire community of users, including for the research community to advance scientific understanding of the Mediterranean Sea ecosystem dynamics;
    (c) Organise workshops and common projects to plan the upgrade and innovative development of the services and products;
    (d) Encourage the use of operational oceanography products and services in growing the blue-green economy;
    (e) Promote the development of risk assessment and adaptation plans to pollution, the effects of climate change and other natural and man-made hazards;
    (f) Promote links between operational oceanographic services and the maritime sector.

2. National Level
    (a) Strengthen and upgrade national operational monitoring and forecasting services;
    (b) Respond to national user groups by providing specialized services;
    (c) Coordinate national and regional contributions to GOOS and GEOSS.

3. Regional Level
    (a) Identify pan-regional Mediterranean priorities for operational oceanography;
    (b) Support training, education and technology transfer in operational oceanography of the Mediterranean Sea;
    (c) Facilitate linkages with regional organisations, agencies and programs and support their education in and ability to use the Services;
    (d) Organise the representation of MONGOOS as the Mediterranean Regional Alliance for GOOS;
    (e) Design services to support countries in implementing regional conventions, in particular the Barcelona Convention;
    (f) Cooperate with ICG/NEAMTWS.

4. European Level:

    (a) Organize the Mediterranean contribution to the development of the European Centre for Ocean Monitoring and Forecasting and facilitate the uptake of its products by Members;

    (b) Link with and contribute to GMES Marine Services;

    (c) Contribute to EMODnet and the Integrated Maritime Policy;

    (d) Collaborate with European and regional meteorological offices;

    (e) Act as a ROOS for EuroGOOS in the Mediterranean;

    (f) Work with European agencies, including EEA, EMSA, EUMETSAT and ESA and harmonize MONGOOS and EuroGOOS initiatives to their mutual benefit.

5. Global Level:

    (a) Facilitate linkages with international and regional organisations, agencies and programs;

    (b) Contribute to the international planning and implementation of the Global Ocean Observing System;

    (c) Promote inter-regional cooperation, including with EuroGOOS, GOOS Africa, Black Sea GOOS;

    (d) Coordinate and harmonize the development of a sustainable Integrated Observing System at the basin and shelf/coastal scales;

    (e) Contribute to JCOMM observing systems;

    (f) Strengthen relationships with other IOC and WMO programs.