



# Report on Activities for NOOS 2011

## Contact

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## NOOS members and change in membership

### Belgium

Royal Belgian Institute for Natural Sciences, Management Unit of the North Sea  
Mathematical Models (MUMM)  
Waterways and Marine Affairs Administration – Division Coast

### Denmark

Danish Meteorological Institute (DMI)  
Royal Danish Administration of Navigation and Hydrography (RDANH)

### France

Institut Français de Recherche pour l'Exploitation de la Mer (Ifremer)  
ACRI-ST  
Meteo-France

### Germany

Bundesamt für Seeschifffahrt und Hydrographie (BSH)  
Helmholtz Zentrum Geesthacht (HZG, formerly: GKSS – Forschungszentrum)  
University of Oldenburg

### Ireland

Marine Institute (MI)

### Netherlands

Koninklijk Nederlands Meteorologisch Instituut (KNMI)  
Rijkswaterstaat - Centre for Water Management (RWS)  
Deltares

### Norway

Institute of Marine Research (IMR)  
Norwegian Meteorological Institute ([met.no](http://met.no))

Nansen Environmental and Remote Sensing Center (NERSC)  
Norwegian Institute for Water Research (NIVA)

### **Sweden**

Swedish Meteorological and Hydrological Institute (SMHI)

### **United Kingdom**

Met Office

Proudman Oceanographic Laboratory (POL) (for Tide Gauge Inspectorate)

CEFAS

### **New Members (not yet signed)**

France - CETMEF/DELCE/DHSM/GMD

### **Interested Institutions :**

Marine Scotland, Marlab was represented at the Annual Meeting and are assessing active membership and signing the MOU.

### **Objectives of NOOS**

- Co-ordinate, improve and harmonize the development of operational marine data and information services
- Provide analysis, forecasts and model based products describing the marine conditions of the North West Shelf area
- Provide high quality data and long time series required to advance scientific understanding of the NW European Shelf Seas

### **Main achievements during the last year**

#### **Continuing activities:**

Steering Group meeting in conjunction with the Annual MyOcean partners meeting in Rome, Italy, April 2011. The meeting led to the following outcomes:

- The status of the different project activities was reviewed. The development of the NOOS data portal hosted at BSH was reported upon and reviewed.
- The need for development of a future strategy for NOOS was confirmed and a preliminary working plan was decided.
- The need for development of more operational provision of products for end users were highlighted.

#### **NOOS Annual Meeting at BSH in October 2011**

- The Annual Meeting was hosted by BSH and HZG in Hamburg in connection to the FuTOORE symposium carried out by BSH. There was an associated Workshop with the two focal areas: web based data provision and development of a future strategy for NOOS.
- The reports of the activities of the individual member agencies for 2011 can be found at the [NOOS web portal](#).

- The status of the different NOOS projects was reported. The dedicated reports can also be found at the [NOOS portal. A summary follows here:](#)
- Transport project:
  - Lead Scientist: Stephan Dick, BSH
  - Daily multi-model forecasts for salt and heat fluxes are provided on 29 transects. A model to model comparison has been carried out, quantifying the degree of coherence between the results and whenever possible comparing them to estimates published elsewhere was found of particular interest in the context of the development of a new operational tool at the UKMO performed in the framework of the MyOcean project.
  - MUMM will continue the model to model comparison on an annual basis.
- Water level data project:
  - Lead Scientist: Jacob Woge Nielsen, DMI
  - To exchange observed and forecasted water level in the NW Shelf Sea in near real-time between NOOS partners. Near real-time water level observations are exchanged between eight NOOS partners. Water level forecasts are provided by the interested NOOS partners and tar ball on a regular basis for other NOOS partners to retrieve and use in their national storm surge warning service. The forecasts include surge, sea level, tide, or a combination of these, for a fixed station table. The data is not to be passed on to third party. On an annual basis, DMI calculates a storm surge error for each model, examining the 3 highest events at each station.
- River runoff project
  - Lead Scientist: Bruce Hackett, met.no
  - Make river runoff data – observed and predicted fresh water flux and nutrient/contaminant loads – available to NOOS partners for use in ocean hindcasting and forecasting, and assess the benefits derived. For observational data: UK EA agrees in principle to release English data. Station selection and licensing options need to be resolved. Approach Scotland for same. For prognostic data: Action ongoing to validate E-HYPE against observations in NOOS region. Test E-HYPE data in ocean models by other NOOS participants
- Drift forecast project:
  - Lead Scientist: Sebastien Legrand, MUMM
  - The Group on Search & Rescue and Oil-spill drift has been active by a first model outcome comparisons. Intercomparison of met.no, BSH and DAMSA models for the Full City Accident were undertaken (Brostrøm et al., 2011) As a contracting party of the Bonn Agreement, Belgium has presented the working group aims and activities at the OTSOPA annual meeting 2011. The message was well received and opportunities for receiving external project funding become more realistic.
- Working group on modeling:
  - Lead Scientist: John Siddorn, Metoffice
  - The focal points for that Group is: To understand user requirement for boundary conditions from shelf wide models to drive local high resolution models. Facilitating the exchange of information on ocean modeling practices. Facilitating the exchange of information on ocean-wave-atmosphere. The NOOS specific work for that group was not very extensive during the last years caused by the development of more Paneuropean approaches of the member institutes. The aim is to re-energize the group
- Working group on bathymetry:
  - is now integrated in the WG ocean modeling
- Working group on in situ monitoring:
  - Lead Scientist: Henning Wehde, IMR

- The group hasn't been active for a certain period. The aim is to revitalize that group in order to coordinate the NOOS monitoring activities in a more effective way and to foster communication of the national agencies
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- EMECO project:
  - Lead Scientist: David Mills, Cefas
  - aiming to integrate marine environmental monitoring, modelling and research to provide a holistic approach to improved understanding of the status and predict future changes in ecosystem structure and function. Development of the web-based tool to an operational service was continued.
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- Temp & Salinity services: A newly develop portal for the provision of In Situ data is establish at BSH. There is still an issue with standardising Meta-data information.
- Wave services still have to be extended with more observations for better coverage and has started with forecast information.
- Actions to strengthen the relationship to OSPAR have been postponed and an action is on the Steering Group to take measures in that direction.
- In the Steering Group, Kees van Ruiten (Deltares) stepped down as member since he was not available for continuation of his work in the SG. Sheena Fennell (MI) was elected as successor. Henning Wehde (IMR) was re-elected for another term in the SG and elected as Chair of NOOS. The Steering Group members are therefore Henning Wehde (IMR, chair), Stephan Dick (BSH), Sheena Fennell (MI), Bruce Hackett (met.no), Sebastien Legrand (MUMM) and John Siddorn (UKMO).

## **Plan for next year**

### **NOOS NRT Services**

For all observational services, efforts to extend the data coverage will be continued. More members are expected to contribute forecast data for waves and transports in the NOOS area.

### **Relation NOOS-OSPAR**

NOOS will find a way to contribute to the oceanographic information needs.

### **NOOS Strategy plan**

Finalisation of the work with the NOOS Strategy Plan with longer term future steps for NOOS services and networking within the Operational Oceanography.

### **Relation to major projects**

- EU- FP7 project Jerico has started in May 2011. On monitoring this will have a large impact on harmonizing various monitoring systems. Deltares is leading the NOOS pilot.
- Several NOOS members are active in MyOcean and the follow-up MyOcean2 project. An important role will be on MUMM and MI who are members of the user feedback part of the project that can significantly influence the way ahead for the Marine Core Service provision. Coordination and involvement of NOOS members is strong in the NWS MFC (Met Office lead).

## **Challenges and problems**

Last year's challenges remain for the future:

- Achieve better coordination of national monitoring systems.
- Several members struggle to find resources for participating in NOOS projects
- Bridging the gap between Marine Core Services and Downstream services