NOOS PROJECT SUMMARY

November 13th 2018

KEYWORDS Water level, data exchange

NOOS Water level data exchange			
Project Aims	To exchange observed and forecasted water level in the NW Shelf Sea in near real-time between NOOS partners, in order to improve each partner's national storm surge and water level prediction service.		
Lead agency Lead scientist	DMI, Research & Development dept. Jacob Woge Nielsen jw@dmi.dk		
Participants Denmark	DMI	Vibeke Huess Jacob W. Nielsen	vh@dmi.dk jw@dmi.dk
Germany	BSH, with German Waterways and Shipping Directorates	Stephan Dick	Stephan.dick@bsh.de
Netherlands	Deltares	Martin Verlaan	M.Verlaan@deltares.nl
Netherlands	RWS	Marc Philippart	marc.philippart@rws.nl
Belgium	MUMM	Sebastien LeGrand	s.legrand@mumm.ac.be
Belgium	MDK	Guido Dumon (?)	guido.dumon@mov.vlaanderen.be
U.K.	Met.O	John Siddorn	john.siddorn@metoffice.gov.uk
U.K.	POL	Roger Proctor Kevin Horsburgh	rp@pol.ac.uk kevinh@noc.ac.uk
Ireland	MI	Guy Westbrook	guy.westbrook@marine.ie
Norway	Met.no	Bruce Hackett Harald Engedahl	bruce.h@met.no haralde@met.no
Sweden	SMHI	Lars Axell	lars.axell@smhi.se
Denmark	FCOO	Niels Holt Johan Mattson Johan Söderkvist	nho@fcoo.dk jma@fcoo.dk jos@fcoo.dk
France	-	-	-
Present status (Nov. 2018)	**Water level observation exchange** Real-time tide gauge data is exchanged between 8 NOOS partners: DMI, BSH, MDK, MI, Met.no, POL, RWS and SMHI. The data exchange includes 53 coastal and 1 off-shore stations. It is managed thru ftp boxes at each partner. France is at present not included. DMI collects and presents at the NOOS web page https://noos.eurogoos.eu/observations/water-level-obs-2/ in near real-time. The page displays a synoptic chart, and includes time series in graphical and digital format going one week back. **Water level forecast exchange** Each NOOS partner who runs an operational sea level forecast service, and who so may wish, uploads a water level forecast tar ball on a regular basis (1, 2 or 4 times a day) for other NOOS partners to retrieve thru ftp		

	and use as auxiliary information 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. **Superstructure and quality studies** Deltares has developed an information system Matroos / Ensurf that provides real-time multi-model forecasts. The system adds value to the forecast ensemble by dynamically assigning weights using a Bayesian moving average method. This is interfaced with Google maps, and may be accessed thru the NOOS web page https://noos.eurogoos.eu/model-results/water-level-fc/
Project timescale *Eg ongoing / to complete in 2018*	2018 • A final attempt to access observations from France thru IBI-ROOS • √ fix issue with British data • fix issue with Belgian data • update station table – only coastal stations • add Danish observations to forecast page • highlight the Bayesian mean forecast
Planned Developments	Validate Bayseian forecast, to quantify the benefit of using such in practical storm surge warning. This would require a study of several years' data.
To be assessed	The benefit of adding a synoptic surge map, in addition to the sea level map, in a practical storm surge warning context. The amount of work involved in setting up such service. The possibility of having a forecast page including only coastal stations.
Link to project documents (password protected URL ??)	-