

## NOOS PROJECT SUMMARY

October 14th 2019

KEYWORDS Sea level, data exchange

<i>NOOS Sea level data exchange</i>			
Project Aims	To exchange observed and forecasted sea level in the NW Shelf Sea in near real-time between NOOS partners, in order to improve each partner's national storm surge and sea level prediction service.		
Lead agency Lead scientist	DMI, Research & Development dept. Jacob Woge Nielsen <a href="mailto:jw@dm.dk">jw@dm.dk</a>		
Participants Denmark	DMI	Vibeke Huess Jacob W. Nielsen	<a href="mailto:vh@dm.dk">vh@dm.dk</a> <a href="mailto:jw@dm.dk">jw@dm.dk</a>
Germany	BSH, with German Waterways and Shipping Directorates	Stephan Dick Susanne Tamm	<a href="mailto:stephan.dick@bsh.de">stephan.dick@bsh.de</a> <a href="mailto:susanne.tamm@bsh.de">susanne.tamm@bsh.de</a>
Netherlands	Deltares	Martin Verlaan	<a href="mailto:M.Verlaan@deltares.nl">M.Verlaan@deltares.nl</a>
Netherlands	RWS	Marc Philippart	<a href="mailto:marc.philippart@rws.nl">marc.philippart@rws.nl</a>
Belgium	RBINS	Sebastien LeGrand	<a href="mailto:s.legrand@naturalsciences.be">s.legrand@naturalsciences.be</a>
Belgium	MDK	Jasmine Dumollin	<a href="mailto:jasmine.dumollin@mow.vlaanderen.be">jasmine.dumollin@mow.vlaanderen.be</a>
U.K.	Met.O	John Siddorn	<a href="mailto:john.siddorn@metoffice.gov.uk">john.siddorn@metoffice.gov.uk</a>
U.K.	POL	Roger Proctor Kevin Horsburgh	<a href="mailto:rp@pol.ac.uk">rp@pol.ac.uk</a> <a href="mailto:kevinh@noc.ac.uk">kevinh@noc.ac.uk</a>
Ireland	MI	Kieran Lyons	<a href="mailto:kieran.lyons@marine.ie">kieran.lyons@marine.ie</a>
Norway	Met.no	Bruce Hackett	<a href="mailto:bruceh@met.no">bruceh@met.no</a>
Sweden	SMHI	Lars Axell	<a href="mailto:lars.axell@smhi.se">lars.axell@smhi.se</a>
Denmark	Getmetoc	Niels Holt Johan Mattson Johan Söderkvist	<a href="mailto:nho@fcoo.dk">nho@fcoo.dk</a> <a href="mailto:jma@fcoo.dk">jma@fcoo.dk</a> <a href="mailto:jos@fcoo.dk">jos@fcoo.dk</a>
France	SHOM	-	<a href="mailto:cmems-service@ifremer.fr">cmems-service@ifremer.fr</a>
Present status (Oct. 2019)	<p><b>Sea level observation exchange</b> Real-time tide gauge data is exchanged between 9 NOOS partners: DMI, BSH, MDK, MI, Met.no, POL, RWS, SHOM and SMHI. It is managed thru urls and ftp boxes at each partner.</p> <p>There is a total of 3 NOOS presentation pages</p> <ol style="list-style-type: none"> <li>Synoptic chart, coastal stations <a href="https://noos.euogoos.eu/observations/water-level-obs-2/">https://noos.euogoos.eu/observations/water-level-obs-2/</a> Managed by DMI NRT data plus 5 days archive France is at present not included, as the time delay is too large.</li> <li>Matroos chart <a href="https://noos.euogoos.eu/observations/nl-matroos-obs/">https://noos.euogoos.eu/observations/nl-matroos-obs/</a> Managed by Deltares Includes data download service Part of the more general Matroos forecast service. France, Denmark, Norway not included – but Swedish Baltic is.</li> </ol>		

	<p>Inland/upstream and off-shore stations included</p> <p>3. NWS data portal  <a href="http://nwportal.bsh.de">nwportal.bsh.de</a>  Managed by BSH  General ocean data service, not limited to sea level  Pass-word protected  Includes download of daily, monthly, annual series in netcdf format.  Seems to be comprehensive</p> <p><b>Sea level forecast exchange</b>  Each NOOS partner in charge of an operational sea level forecast service, is encouraged to upload a sea 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.</p> <p>1. The data is collected, presented and archived thru the Deltares Matroos / Ensurf interface at  <a href="https://noos.eurogoos.eu/model-results/water-level-fc/">https://noos.eurogoos.eu/model-results/water-level-fc/</a>  <a href="https://noos.matroos.rws.nl/">https://noos.matroos.rws.nl/</a>  A forecast ensemble weighted mean is added by a Bayesian moving average method.</p> <p>2. The data is collected and archived for statistical study at DMI.</p>
Project timescale <i>Eg ongoing / to complete in 2020</i>	<ul style="list-style-type: none"> <li>• Add Danish, French, Norwegian data to Matroos observation page.</li> <li>• Port this to the extent possible to the Matroos forecast page</li> <li>• Highlight the Bayesian mean forecast</li> </ul>
Planned Developments	<ul style="list-style-type: none"> <li>• Inventory of Matroos / Ensurf forecasts. What is stored?</li> <li>• Validation of this data set, to quantify the possible benefit of using such in practical storm surge warning.</li> </ul>
To be assessed	<ul style="list-style-type: none"> <li>• The benefit of and work needed to adding a synoptic surge map, in addition to the sea level map, in a practical storm surge warning context.</li> <li>• The possibility of having a forecast page switch to include only coastal stations.</li> </ul>
Link to project documents (password protected URL ??)	-