

BOOS Annual meeting 2015

Member report

Country	Sweden
Institution(s)	SMHI
Observations Status and new initiatives	<p>23 static tide gauges operates as planned (19 RT) 5 of the tide gauges also measures SST Continued tests of three mobile tide gauges around the Swedish coastline, they are now installed in Haparanda, Arkö and Uddevalla. 1 new "super mareograph" is on-going at Onsala Space Laboratory at Råö, just south of Gothenburg. The station delivers high-resoluted sea level values and have a CGPS installed in the same position. The station will be a part of the permanent sea level network, operated by SMHI. 3 wave buoys running (also giving SST), Finngrundet, Knolls grund and Väderöarna. 2 new sea buoys – close to Huvudskär and Väderöarna. The systems will hopefully be deployed this summer after some technical problems have been solved. 5 coastal buoys have been deployed around the Swedish coast last autumn: Askö, Öland Ost, Havstensfjord, Kristineberg and Koster. Also, a coastal buoy is planned outside Umeå, at Norrbyn. In cooperation with several Swedish Marine Centres, which are responsible for maintenance of the buoys. SMHI will aquire, quality control and present data. Coastal HF Radar: SMHI have installed and is running a system in test mode in Skagerak since November 2014. The system is rented from CODAR for a six month period (ends mid-May 2015). The system observes surface currents. SMHI wishes a continuation but this is not solved yet. Ferry-boxes running: Transpaper (the vessel do not go to Gothenburg anymore). Data available from ice-breakers: Ale, Atle, Frej, Oden and Ymer. Test of two floaters autumn 2014: one French system tested in the Stockholm archipelago (in Mysingen). Test with bottom mounted oxygen device – three systems have been tested since autumn 2014; Ölands södra, Hanöbukten and Laholmsbukten (L9). Monitoring programme 2015 will be carried out with the ship Aranda, owned by SYKE. Historical oceanographic data at SMHI freely available thourgh an interactive web service (GUI) since June 2013, according to the INSPIRE directive.</p>
Modelling Status and new initiatives	<p>HIROMB 60-hour forecast running four times a day for the Baltic, Kattegat, Skagerrak and North Sea. Resolution 1 and 3 nm. HIROMB longer forecasts running twice a day (00Z 10-days, 15-days, 12Z 5-days) for the Baltic, Kattegat, Skagerrak and North Sea. Resolution 3 nmi. Semi-operational HIROMB four-week forecast twice a week for the Baltic, Kattegat, Skagerrak and North Sea. Resolution 3 nm. Semi-operational HIROMB 60 hour forecast once a day for the Atlantic sector of the Arctic. Resolution 6 nm. High-resolution HIROMB 48-hour forecasts once a day for lake Vänern and for Brofjorden on the Swedish west-coast. NEMO-Nordic pre-operational run without data assimilation once per day for the Baltic, Kattegat, Skagerrak and North Sea. Resolution 2 and 1 nm. SWAN 60-hour forecast four times a day for the Baltic, Kattegat, Skagerrak and North Sea. Resolution 22 km (North Sea) and 11 km (the rest) SeatrackWeb in Lake Vänern operational. The new Seatrack Web application operational. The old application will be closed later this year. Replacement of HBV river-run off with HYPE. HIROMB development stalled. NEMO-Nordic development progressing well.</p>

	RCO-SCOBI, NEMO-SCOBI in research department.
Dissemination Status and new initiatives	SMHI still runs and disseminates model results for the Baltic in HIROMB coop. SMHI serves as dissemination unit and service desk in Baltic MFC, Copernicus. Open data is accessible at http://www.smhi.se/en/services/open-data/oceanographic-observations-1.33356 for observations, and at http://www.smhi.se/en/services/open-data/model-data-hiromb-bs01-1.33361 for model data.
Relevant national projects	<p>Long-term biogeochemical reanalysis (Havsmesan) for the Baltic Sea and Kattegatt for the period 1970-2000. Done as part of MyOcean.</p> <p>Swedish baselines project – national government investigation, where SMHI together with other authorities in Sweden will update the baselines around the Swedish coast. The work was finalized in February 2015.</p> <p>Cooperation with the Swedish Maritime Administration on a common reference reference system for sealevel.</p> <p>Review of Oceanographic observational systems/platforms.</p> <p>Coastal Radar project together with Chalmers.</p> <p>Development of different user cases and quality improvements in Seatrack Web in a project financed by the Swedish Contingency Agency during 2015-2016.</p> <p>NEMO-Nordic development in-house.</p> <p>Water level rise – governmental assignment.</p>
Relevant International projects	<p>EMODnet physics – SMHI has the lead role in the Baltic and have integrated a lot of new platforms to the EMODnet Physics portal: www.emodnet-physics.eu</p> <p>Copernicus INSTAC – SMHI and SYKE will run the marine service and produce data coming from the Baltic.</p> <p>Copernicus BAL MFC – SMHI, BSH, DMI, MSI and FMI will run the service in the Baltic.</p> <p>Jmp CS/NS.</p> <p>Balsam.</p> <p>Polar Ice - SMHI will in the project develop a ‘general’ NEMO for set-up in arbitrary location. Will be tested by the Swedish Polar Research Secretariat.</p> <p>Geoilwatch – pilot for using new observational sources as input to Seatrack Web. Test with e.g. oil sensors on ferryboxes and new satellite algorithms.</p> <p>Stormwinds – SMHI will improve Seatrack Web regarding ice conditions and perform climate scenario analysis of ice parameters using NEMO-Nordic 2nm.</p> <p>JERICO NEXT – SMHI is a partner in Jerico Next. The project starts 1 September 2015.</p> <p>SDN2, SDN3?</p>
Additional information	