NOOS Annual meeting 2015

Member report

Country	Sweden
Institution(s)	SMHI
Observations Status and new initiatives	▪ 23 static tide gauges operates as planned (20 RT) ▪ 5 of the tide gauges also measures SST ▪ Continued tests of two mobile tide gauges around the Swedish coastline, they are now installed in Haparanda and Arkö. The station in Uddevalla is now dismantled. ▪ 1 new ”super mareograph” is now inaugrated at Onsala Space Laboratory at Råö, just south of Gothenburg. The station delivers high-resoluted sea level values and have CGPS (CNSS and GLONASS) 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 WR, Knolls grund and Väderöarna WR. ▪ 2 sea buoys – close to Huvudskär and Väderöarna. The buoys will hopefully soon be in operation 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 until December 2015. The system observes surface currents. SMHI wishes a continuation for 2016, 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. Data are available in the BOOS Data Portal. ▪ 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). Data from the three system are integrated into the BOOS Data Portal. ▪ Monitoring programme 2015 will be carried out with the ship Aranda, owned by SYKE. Sweden will have a new research vessel in a few years. ▪ Historical oceanographic data at SMHI freely available thorugh an interactive web service (GUI) since June 2013, accoording to the INSPIRE directive.
Modelling Status and new initiatives	▪ 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 is now operational. ▪ Replacement of HBV river-run off with HYPE. Data from the model will soon be

	available in the BOOS Data Portal. ▪ HIROMB development stalled. ▪ NEMO-Nordic development progressing well. ▪ RCO-SCOBI, NEMO-SCOBI in research department.
Dissemination Status and new initiatives	▪ SMHI still runs and disseminates model results for the Baltic in the HIROMB coop. (which is now a part of the modelling programme in BOOS) ▪ 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. ▪ New webpage to display CTD-profiles from SMHIs monitoring cruises with R/V Aranda in near-real time (and historical data from 1978): http://www.smhi.se/hfa_coord/BOOS/CTD.html Data are available in NRT in the BOOS Data Portal.
Relevant national projects	▪ Long-term biogeochemical reanalysis (Havsmesan) for the Baltic Sea and Kattegatt for the period 1970-2000. Done as part of MyOcean. 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. ▪ Cooperation with the Swedish Maritime Administration on a common reference reference system for sealevel. ▪ Review of Oceanographic observational systems/platforms. ▪ Development of different user cases and quality improvements in Seatrack Web in a project financed by the Swedish Contingency Agency during 2015-2016. ▪ NEMO-Nordic development in-house. ▪ Sea level rise – governmental assignment.
Relevant International projects	▪ EMODnet physics – SMHI has the lead role in the Baltic and have integrated a lot of new platforms to the EMODnet Physics portal: http://www.emodnet-physics.eu ▪ Copernicus INSTAC – SMHI and SYKE will run the marine service and produce data coming from the Baltic. ▪ Copernicus BAL MFC – SMHI, BSH, DMI, MSI and FMI will run the service in the Baltic. ▪ Jmp CS/NS. ▪ Balsam. ▪ 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. ▪ Geoilwatch – pilot for using new observational sources as input to Seatrack Web. Test with e.g. oil sensors on ferryboxes and new satellite algorithms. ▪ Stormwinds – SMHI will improve Seatrack Web regarding ice conditions and perform climate scenario analysis of ice parameters using NEMO-Nordic 2nm. ▪ JERICO NEXT – SMHI is a partner in Jerico Next. The project starts 1 September 2015. ▪ SDN2, a new project, SeaDataNext is planned.
Additional information	