



Temporal variations of Sea ice cover in the Baltic Sea derived from operational sea ice products used in NWP.

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Sea ice cover is a crucial parameter for surface fluxes of heat and moisture over water areas. The isolating effect and the much higher albedo strongly reduces the turbulent exchange of heat and moisture from the surface to the atmosphere and allows for cold and dry air mass flow with strong impact on the stability of the whole boundary layer and consequently cloud formation as well as precipitation in the downstream regions.

Numerical weather centers as, ECMWF, MetoFrance or DWD use external products to initialize SST and sea ice cover in their NWP models. To the knowledge of the author there are mainly two global sea ice products well established with operational availability, one from NOAA NCEP that combines measurements with satellite data, and the other from OSI-SAF derived from SSMI/S sensors. The latter one is used in the Ostia product. DWD additionally uses a regional product for the Baltic Sea provided by the national center for shipping and hydrografie which combines observations from ships (and icebreakers) for the German part of the Baltic Sea and model analysis from the hydrodynamic HIROMB model of the Swedish meteorological service for the rest of the domain.

The temporal evolution of the three different products are compared for a cold period in Februar 2012. Goods and bads will be presented and suggestions for a harmonization of strong day to day jumps over large areas are suggested.