NOOS annual report 2017

Member report - FCOO

September 2017

<table>
<tr><td>Country</td><td>Denmark</td></tr>
<tr><td>Institution</td><td>Defence Center for Operational Oceanography</td></tr>
<tr><td>Modelling
Status and new initiatives</td><td>
Status:
Operational barotropic 2D model covering the Northern North Atlantic. To generate open boundary conditions to baroclinic model.
Operational: baroclinic 3-dimensional model covering North Sea – Baltic Sea region
• GETM code
One way nested (1nm. and 1/3 nm.).
60 vertical layers, general vertical coordinates
4x daily
56 hour
Wave model Wave Watch III
• Three one way nested models, with focus on the inner Danish waters. The horizontal resolution for the North Atlantic model, North Sea – Baltic Sea, and the Inner Danish water models are 9nm, 3nm and 1 nm, respectively.
56 hour forecasts
4 times a day
Seatrack Web:
• Oil dispersion model for the Danish Waters and Baltic Sea

Under development:
• Sea ice module for the operational model (GETM) in the North Sea – Baltic Sea region
• Oil drift system SetrackWeb web is being setup for Greenland waters
• GETM updates:
- Updated to latest GETM version.
- Replaced river forcing from HBV to EHYPE
- Include precipitation and evaporation
- Changed Jerlov coefficient from Jerlov I to Jerlov III, thus changed vertical distribution of solar heat flux
- Flexible output. Write less model output during runtime, which significantly reduce runtime
</td></tr>
<tr><td>Dissemination
Status and new initiatives</td><td>
Status:
Internet service (public):
Real-time observations and forecasts available at IFM Maps (ifm.fcoo.dk)
<table>
<tr><td>Observations
(Source: Danish Meteorol. Inst.)</td><td>Forecasts</td></tr>
<tr><td>• Sea level</td><td>• Sea level
• Sea temperature
• Salinity
• Near-surface currents
• Wave height (significant)
• Wave direction (main)
• Wave height (significant, External src: ECMWF)
• Wave direction (main, External src: ECMWF)
• Wind (External source: ECMWF)</td></tr>
</table>
Ftp box services:
• Sea level forecast at selected stations. The NOOS project e-surge
• Cross section transports. To MyOcean2 project: MME
• 2D fields of salinity, temperature and currents (0-5m average). To MME project
</td></tr>
<tr><td>Relevant international projects</td><td>eSurge project
Multi-Model-Ensemble (MME) project</td></tr>
</table>