SRNWP at FMI
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Operational

<table>
<thead>
<tr>
<th>SRNWP SUITES</th>
<th>HIRLAM v7.4</th>
<th>HARMONIE Cy38r12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesh size</td>
<td>7.5 km</td>
<td>2.5 km</td>
</tr>
<tr>
<td>Number of grid points</td>
<td>1056 * 816</td>
<td>730 * 600</td>
</tr>
<tr>
<td>Number of levels</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Initial times</td>
<td>00/06/12/18 UTC</td>
<td>00/03/06/09/12/15/18/21 UTC</td>
</tr>
<tr>
<td>Range</td>
<td>+54 h</td>
<td>+54 h</td>
</tr>
<tr>
<td>Upper air analysis</td>
<td>42+var</td>
<td>30+var</td>
</tr>
<tr>
<td>Surface analysis</td>
<td>Optimal interpolation</td>
<td>Optimal interpolation</td>
</tr>
<tr>
<td>Nested forecast</td>
<td>ECMWF IFS, 1n - 6 h</td>
<td>ECMWF IFS, 1n - 6 h</td>
</tr>
<tr>
<td>LBC frequency</td>
<td>3 h</td>
<td>3 h</td>
</tr>
</tbody>
</table>

Notes: (a) Full time for initial conditions; (b) * From 2011 it is replaced by MetCoOp

Model verification

HIRLAM long-term verification for T2m and V10m years 1995 - 2017

HARMONIE-AROME long-term verification for T2m and V10m 04/2009 – 9/2017

Open data access

The Finnish Meteorological Institute has made its data sets freely available for public use. The data sets can be obtained in machine-readable, digital format. An online service that will make it possible to search for, browse and download the Institute’s data sets has been developed.

Information about the open data access can be found from

https://en.ilmatieteenlaitos.fi/open-data

FMI joins Nordic MetCoOp cooperation

Starting from January 2017, FMI has been a member of a Nordic MetCoOp cooperation with Norway and Sweden, where the countries run a common ensemble prediction system called MEPS based on non-hydrostatic convection-permitting Harmonie-Arome developed in a code cooperation with Météo-France and ALADIN.

From September 2017, FMI has been integral part of the production chain, running one of the EPS members. The MEPS control member now also replaces FMI’s own Harmonie-Arome runs.

MEPS main specifications

- Harmonie-Arome version cy40h1.1
- Horizontal resolution 2.5 km, 900x960 points (including extension zone)
- Non-hydrostatic dynamics, semi-Lagrangian advection
- HARMONIE-AROME atmospheric physics, SURFEX (v.7.3) surface scheme
- 1x9 ensemble members with initial value, surface and boundary perturbations

FMI - LAPS

FMI - Local Analysis and Prediction System (LAPS)
FMI-LAPS 3D-analysis use background fields from the latest forecast and observational datasets:

- ECMWF-IFS and in near future HARMONIE-MEPS
- In-situ and remote-sensing observations (see below figure)
- 3 km horizontal grid, 44 vertical levels, covering Scandinavia

Special focus is on improved precipitation and cloud-related analysed fields. Forecasts are used within FMI nowcasting and short-range applications and several other end-user applications, including hydrological, fire-weather and road models, hot-start of HARMONIE-AROME, post-processing of radiation quantities etc.