Czech Republic

Main characteristics:

The operational library is based on cy38t1bf03 export version with local developments. All configurations in use, including the VerifPack (Veral) are on that cycle.

Resolution: 4.7 km, 529x421 points, 87 levels, linear grid.

Time step: 180 s.

Orography: mean.

Dynamics: HPE, scheme SISL-2TL.

Horizontal diffusion: SLHD

Physics: ALARO-1 version B, since 26 September 2016

Initial conditions: surface analysis CANARI and DF blending-3DVAR (BlendVAR) for the upper-air variables.

Cycling and production forecasts: 6h digital filter blending – 3DVAR (BlendVAR) cycle based on the late cutoff, 4 production runs per day with incremental DFI initialization, forecasts are run till 72h, except the run from 18h UTC, which goes till 54h.

HPC: two full NEC SX-9 nodes (1TB RAM and peak performance 1.6 TFLOPS provided by 16 CPUs each node).

Operational changes between March 2016 and September 2016:

14/06/2016

New diagnostics of temperature and humidity at 2m;

21/06/2016

VarCanPack hourly diagnostic analysis;

26/09/2016

ALARO-1 version B of physics, containing:

- New mass-flux type closure of shallow convection;
- New so-called exponential-random geometry of vertical overlaps of cloudiness (radiation, cloud diagnostics, microphysics) and precipitation (microphysics);
- New direct sunshine diagnostics;
- New diagnostics of sunshine duration.

Coupling files: ARPEGE global model; RMDCN is used to download the coupling files.