

Launch of the Arpège High-Resolution E-suite, with November 5th assimilation run of 18 UTC.

The E-suite contains the following:

1. ARPEGE

- base cycle 32T0; 32T0.op2.10
 - TL538C2,4L60, timestep 900s
- within 4D-VAR: TL107C1L60, 25 iterations; TL224C1L60, 30 iterations; timestep 1800s;
- finite vertical elements for vertical discretization
 - increased vertical diffusion for momentum, especially near the tropopause
 - PDF-based sedimentation scheme in APCS microphysics
 - assimilation of ASCAT ; correction of bias correction for ERS/AMI
 - variational bias correction for all satellite radiances
 - monitoring of 314 IASI channels
 - B matrix statistics for 60 levels are extrapolated values from the previous (operational) B matrix (46 levels).
A native 60 level small ensemble is currently computed in order to derive true 60 level statistics.
 - optimization features for the NEC activated

2. Aladin-France_ will inherit some of the modifications above:

- 60 levels, ASCAT assimilation, vertical finite elements, changes in the physics
- LAM B matrix also is an extrapolated matrix (from the LAM 46 level statistics)
- bias correction coefficients are those stored from the Arpège VarBC preliminary experiments, and are used in the LAM in static (non adaptive) way like usual bc terms. SEVIRI bias correction is therefore untouched.
- Initialization: an important change occurs with DFI :
 - incremental DFI formulation with retuned parameters (stop-band edge 2h and time-span 1h40)
 - use LAM analysis file as initial coupling file (instead of Arpège interpolated C0)
 - tune background total error variances down (REDNMC=12)
 - non-linear and omega balances activated

The Aladin-France E-suite should be launched next week.

Also next week, we'll start the production of E-suite LBC files for the LACE and Belgium domain, daily on the R00 production runs.