

PEARP, the Meteo-France Ensemble Prediction system

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Since June 2004 a short-range ensemble prediction system (PEARP system) is running operationally at Météo-France once a day at 18UTC. The ensemble (11 members) is initialized using 12h-singular vectors and blending breeding techniques. PEARP uses a TL358c2.4 version of the operational TL538c2.4 global spectral model ARPEGE.

Important upgrades of the PEARP system are planned during summer 2009 including a new initialization procedure that combines an ensemble of analyses with singular vectors perturbations, the use of a set of different physical parametrizations in order to take into account the effect of uncertainties in the model formulation, an increased ensemble size (from 11 to ~35 members) and an increased grid resolution (from 25 km to ~15km over western Europe), while keeping the spectral resolution nearly constant : the specific geometrical grid transformation of ARPEGE will be used.

The new PEARP system will have the same characteristics as most of the existing global EPS but a grid resolution over Europe close to most of the existing LAMEPS.

Using the TIGGE data-base archive, the new PEARP system will be compared with other operational EPS.