

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 \sim 35 members) and an increased grid resolution (from 25 km to \sim 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.