Prévision d'Ensemble ARPEGE

operational and ongoing work

Poster presentation

EWGLAM/SRNWP 2009

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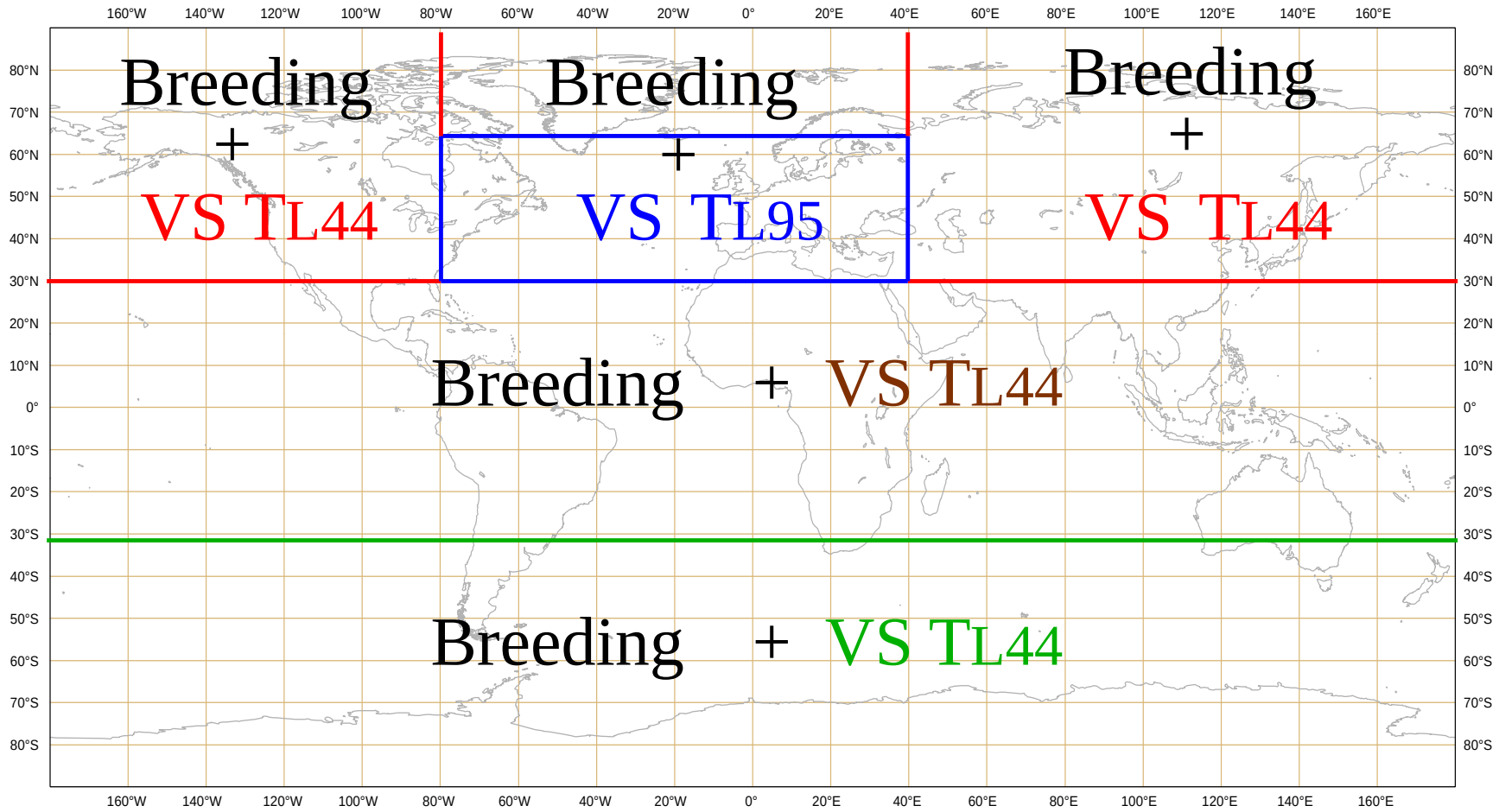
METEO FRANCE

Toujours un temps d'avance

PEARP1.5 - operational ensemble

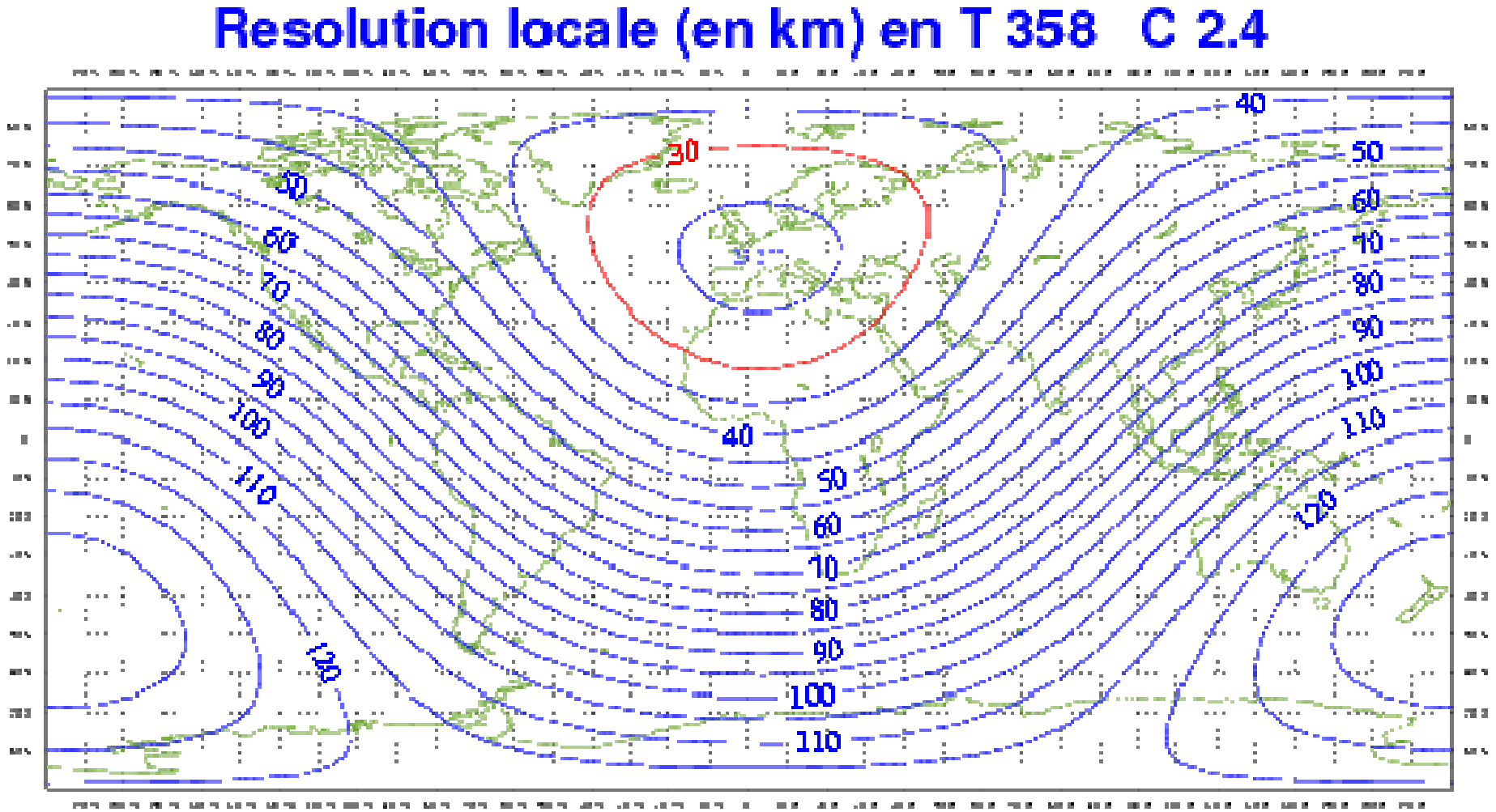
- PEARP1.5 uses ARPEGE (operational global model of Météo-France)
- Running at 18UTC with a 108h range
- A control run and 10 operational members + 10 semi-operationals members
- Initial perturbations :
  - dry singular vectors on 4 different areas / OTI 12h
  - 24h breeding
  - scaled to an amplitude size using error variances background of the day consistent with 4D-Var assimilation cycle
- Resolution PEARP T358L55 C2.4 (~23km over France) vs ARPEGE T538L60 C2.4 (~15km over France)

Target areas for singular vectors



METEO FRANCE
Toujours un temps d'avance

PEARP1.5 - operational ensemble (2/2)



METEO FRANCE
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PEARP2

(*available on december 2009*)

- Modified initial perturbations
- Model perturbations
- Increased number of members

METEO FRANCE
Toujours un temps d'avance

PEARP2 – ongoing work

- PEARP2 will use ARPEGE
- Running at 18UTC with a 108h range
- A control run and 34 operational members
- Initial perturbations :
  - dry singular vectors on 4 different areas >

	OTI (h)	resolution
EURAT	12	TI95
HNC and HS	24	TI44
TROP	12	TI44

  - using the 6 analyses computed by AEARP (Assimilation Ensemble ARPege)
  - scaled to an amplitude size using error variances background of the day consistent with 4D-Var assimilation cycle
- Model perturbations : multi-physics (7 physics +ARPEGE operational physical package)
- Resolution PEARP2 T358L55 C2.4 (~23km over France) / increase in 2010 T538L65 C2.4 (~15km over France)