Prévision d’Ensemble ARPEGGE

operational and ongoing work

Poster presentation

EWGLAM/SRNWP 2009

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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

Breeding + VS TL44

Breeding + VS TL95

Breeding + VS TL44
PEARP2

*(available on December 2009)*

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

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<tr>
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<th>OTI (h)</th>
<th>resolution</th>
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<tr>
<td>EURAT</td>
<td>12</td>
<td>TI95</td>
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<td>HNC and HS</td>
<td>24</td>
<td>TI44</td>
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<td>TROP</td>
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<td>TI44</td>
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- 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)