Assimilation of AIRS Radiances at CPTEC/INPE Using the LETKF System

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Assimilation system: 4D LETKF (Hunt et al, 2004,2007, Szunyogh et al. 2008, Fertig et. al, 2008);

Global Model: GFS T62L28

H-Operator : Forward CRTM V 1.13.2.12

Experiments Configurations (20040101 – 20040229)

1. Conventional Data;
2. Conv. + AMSUA 8 channels ;
3. Conv. + AIRS L2CC 20 channels;
4. Conv. + AMSUA + 20 AIRS channels only cloud clear spots

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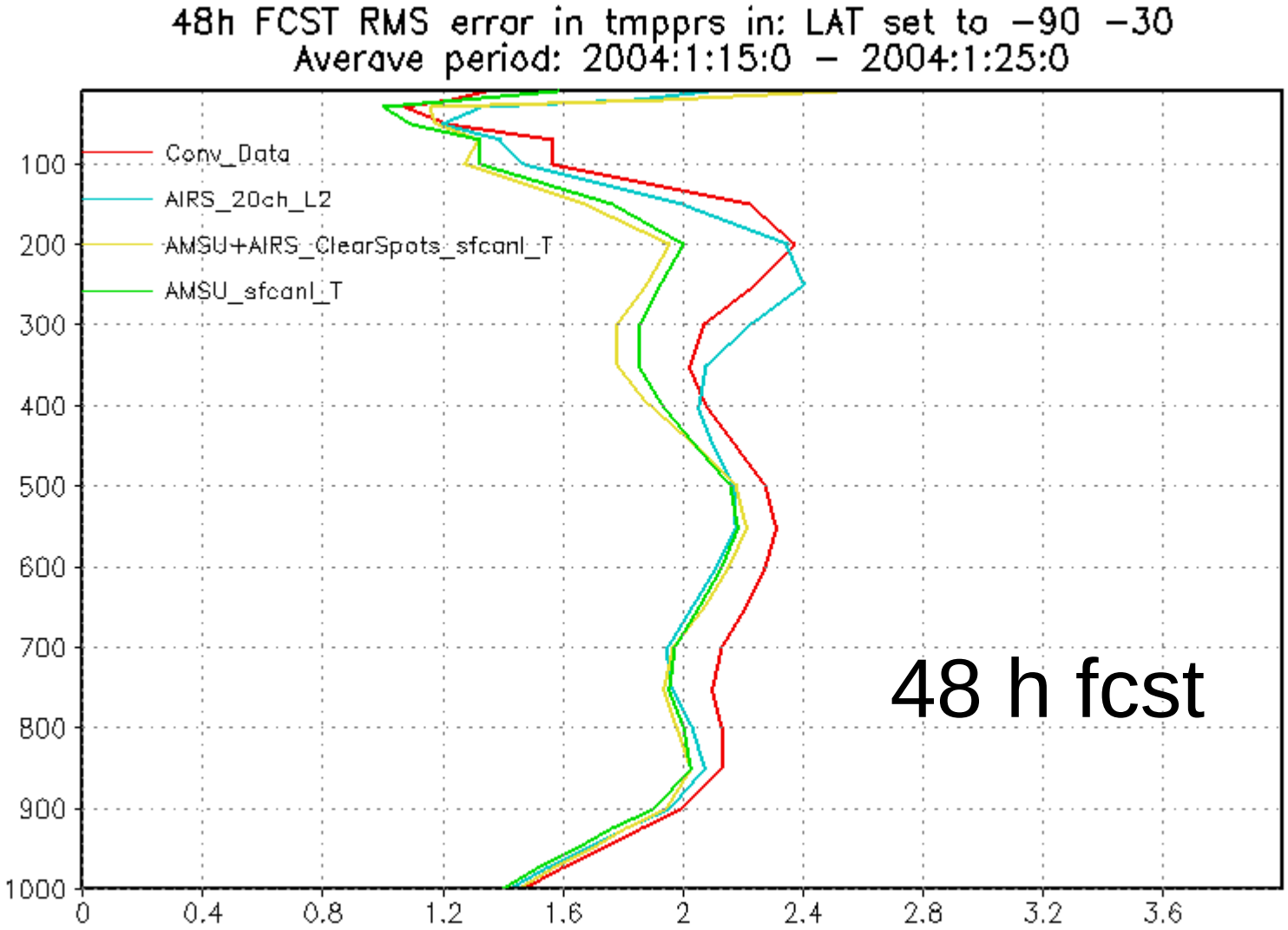

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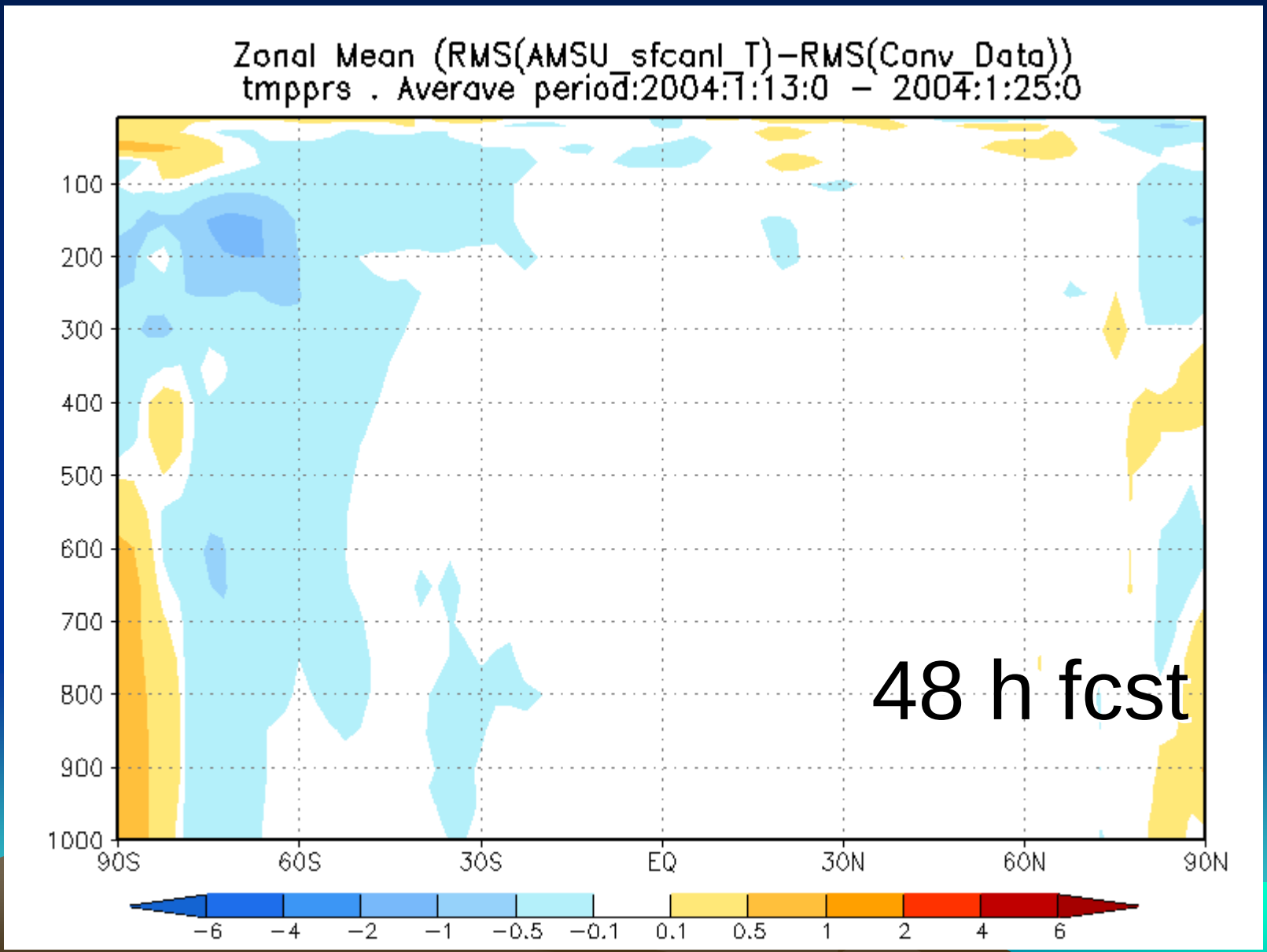

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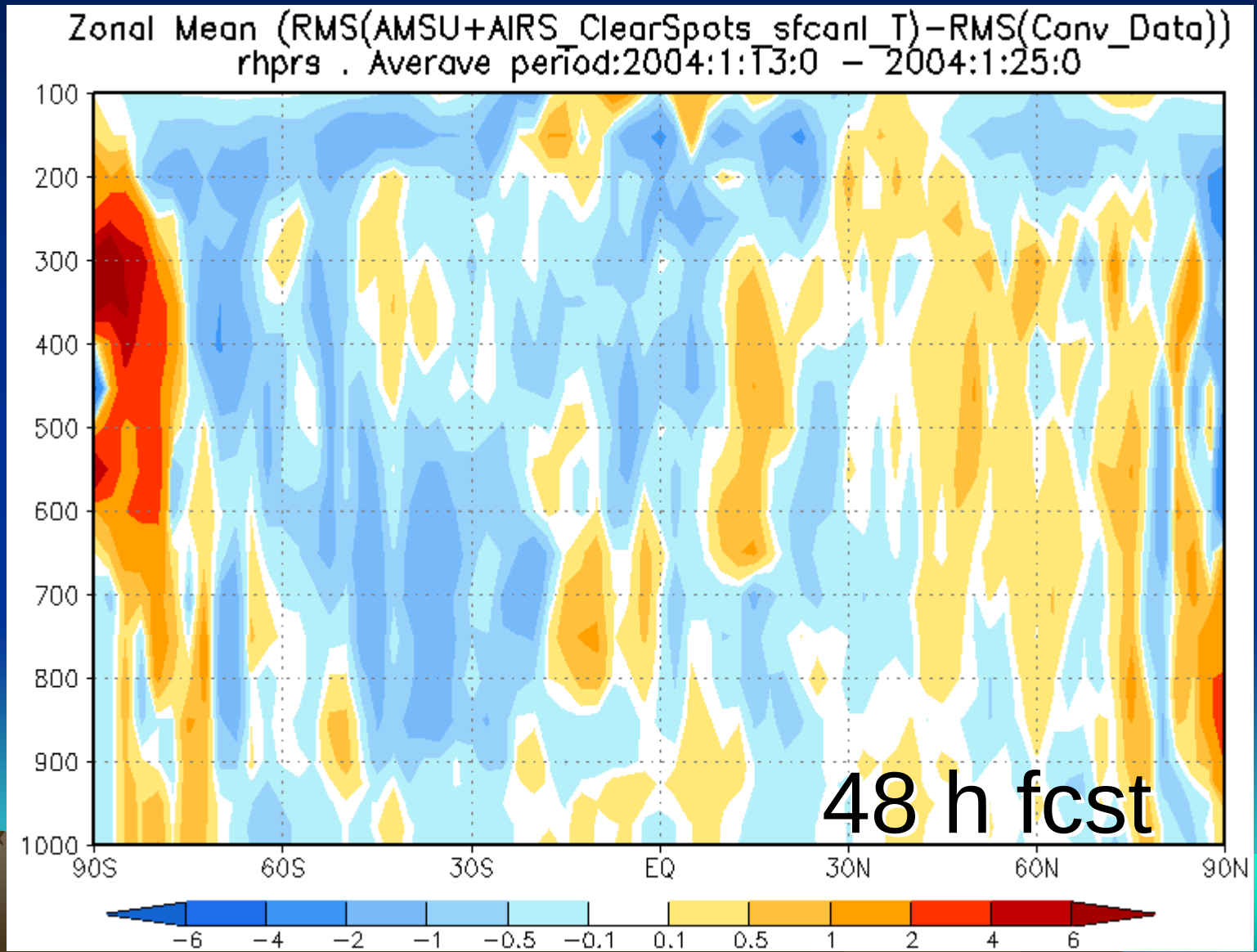

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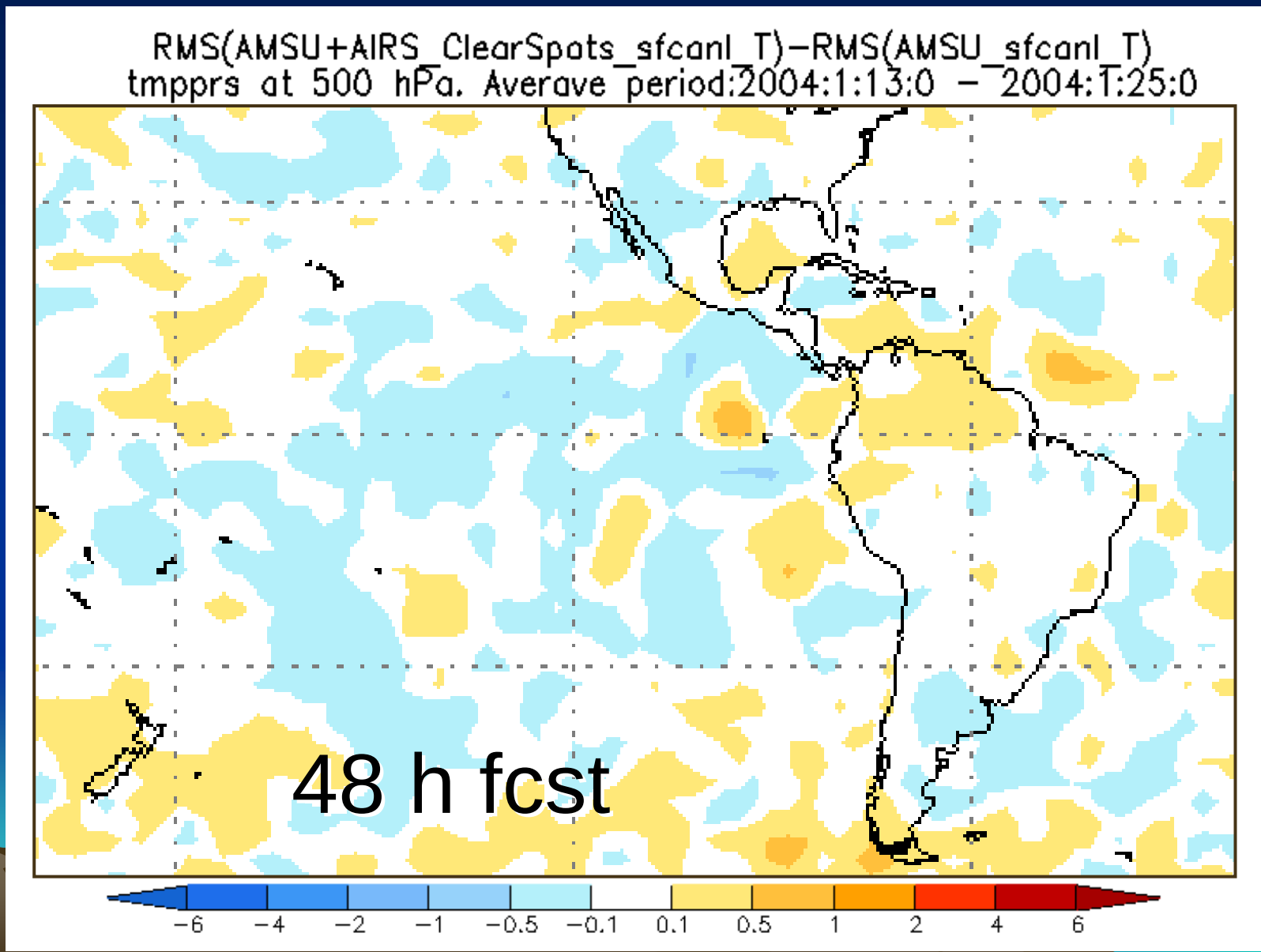

Conclusions and Future Work

- Radiances capability in the LETKF gives a positive impact
- More channels need to be assimilated
- Access global real time data
- To study retrievals impact in this system
- Implement LETKF to regional model
- Regional Reanalysis

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