



Use of ZTDs at UK Met Office

Gemma Bennitt, E-GVAP experts team meeting, Toulouse, 20th -21st October 2011

Our main NWP models

Global Model:

25km

4D-VAR

NAE Model:

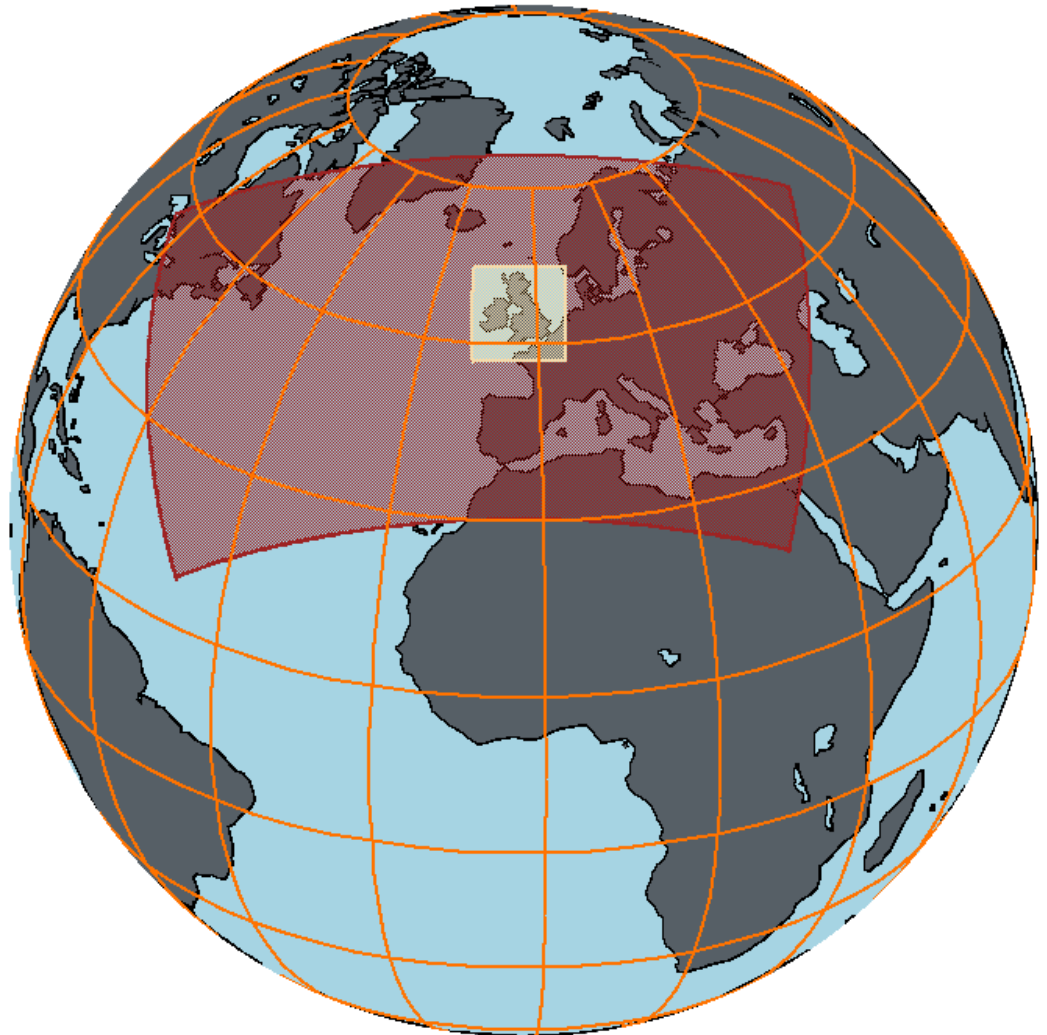
12km

4D-VAR

UK Models:

4km and 1.5km

3D-VAR





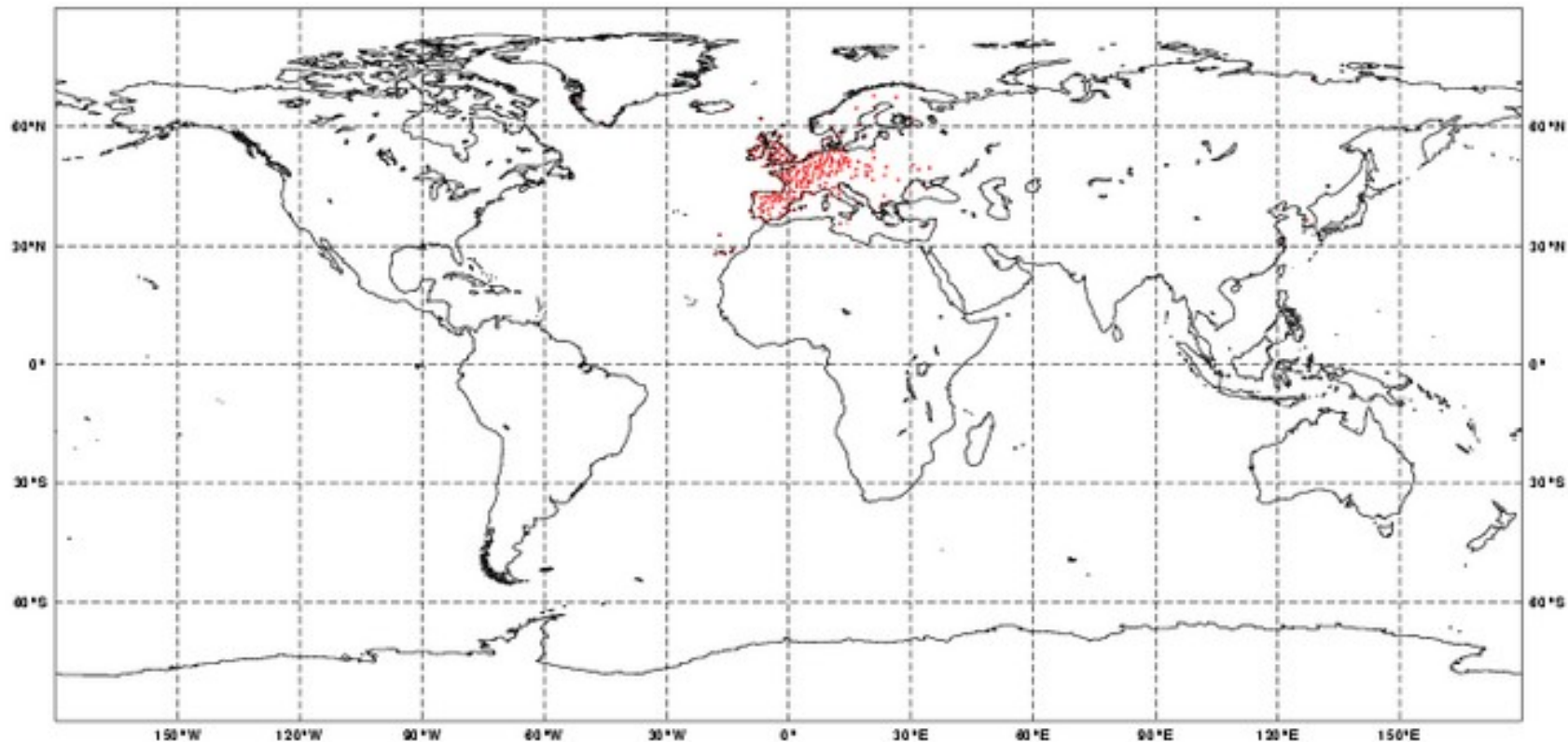
Met Office

Assimilated Data

Data Coverage: GroundGPS (12/10/2011, 0 UTC, qy00)

Total number of observations assimilated: 2995

GroundGPS (295)





Recent developments

- Global model trials

→ New stationlist:

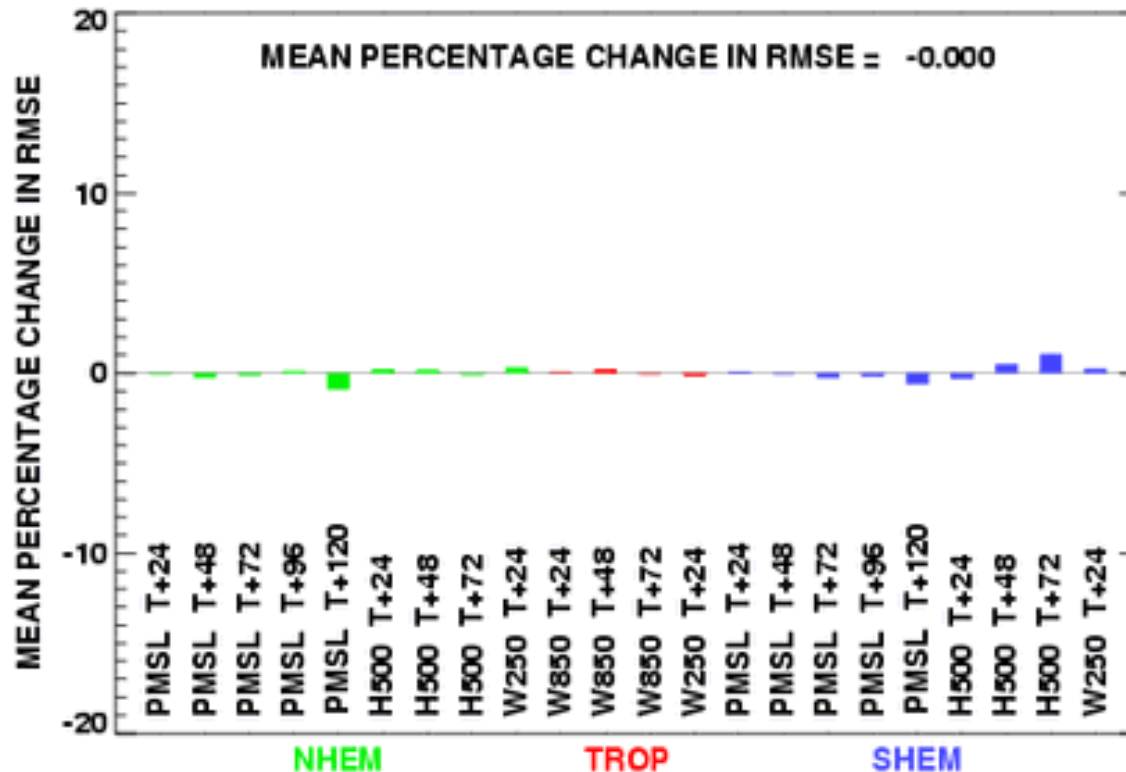
METO, GFZ, GOP, SGN, **IGE, ROB, (GOPG, METG)**

Recent developments

N216L70 PS25 JUN10 GROUND GPS (JUN10N216)

VERIFICATION VS OBSERVATIONS

OVERALL CHANGE IN NWP INDEX = 0.084





Recent developments

Global model trials

→ New stationlist:

* METO, GFZ, GOP, SGN, **IGE, ROB, (GOPG, METG)**

→ Observation error increase:

* from 6 to 9mm

→ Thinning:

*100km spatial thinning

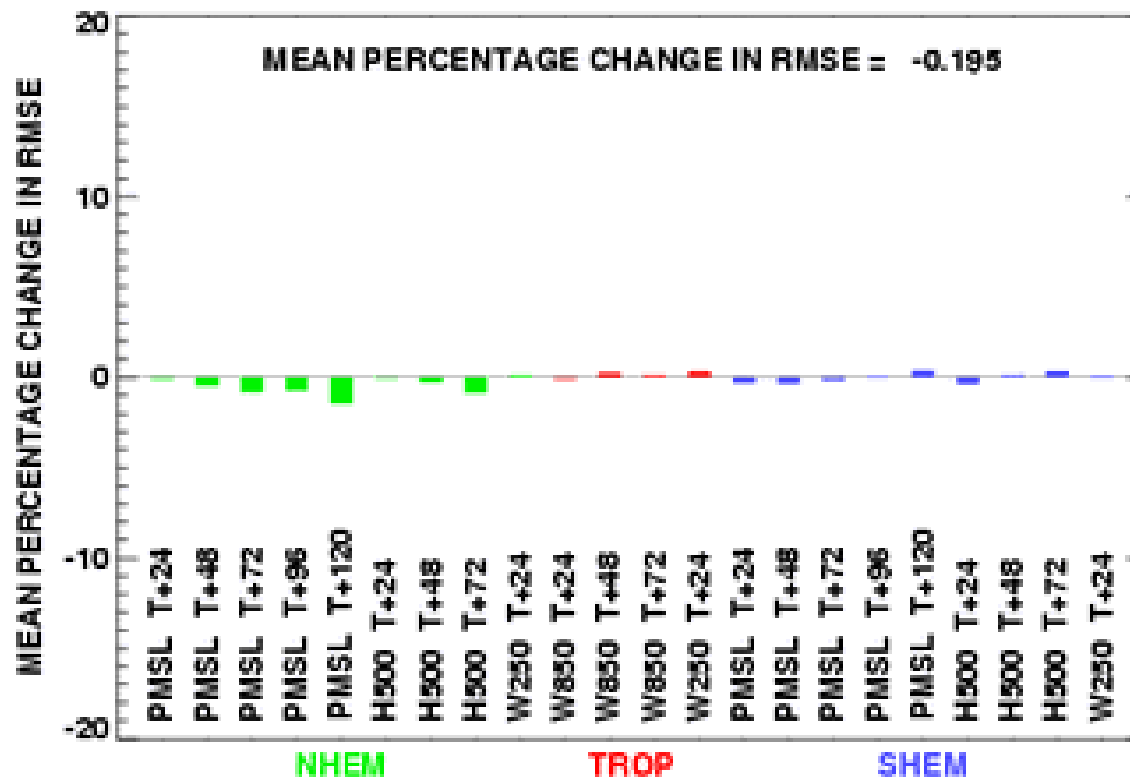
*No temporal variation

Recent developments

216L70 PS25 JUN10 GROUND GPS 80KM THINNING 9MM ERROR (JUN10N216

VERIFICATION VS OBSERVATIONS

OVERALL CHANGE IN NWP INDEX = 0.134

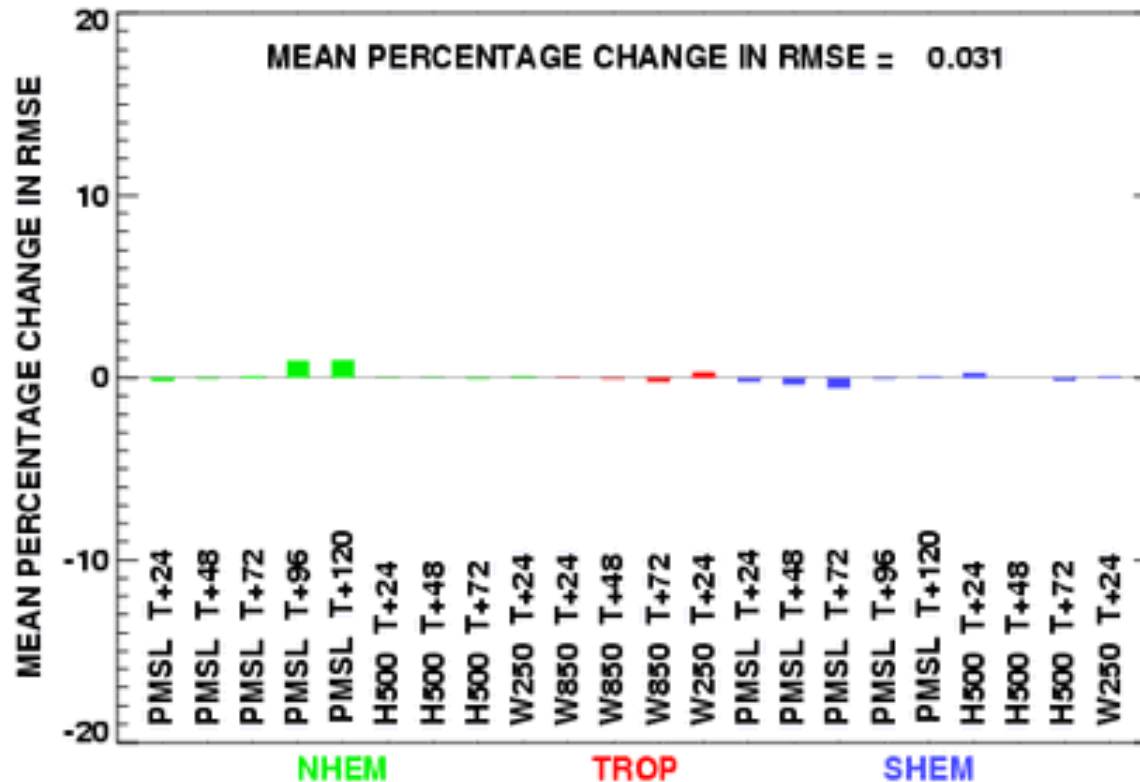


Recent developments

N216L70 PS25 DEC10 GROUND GPS (DEC10N216)

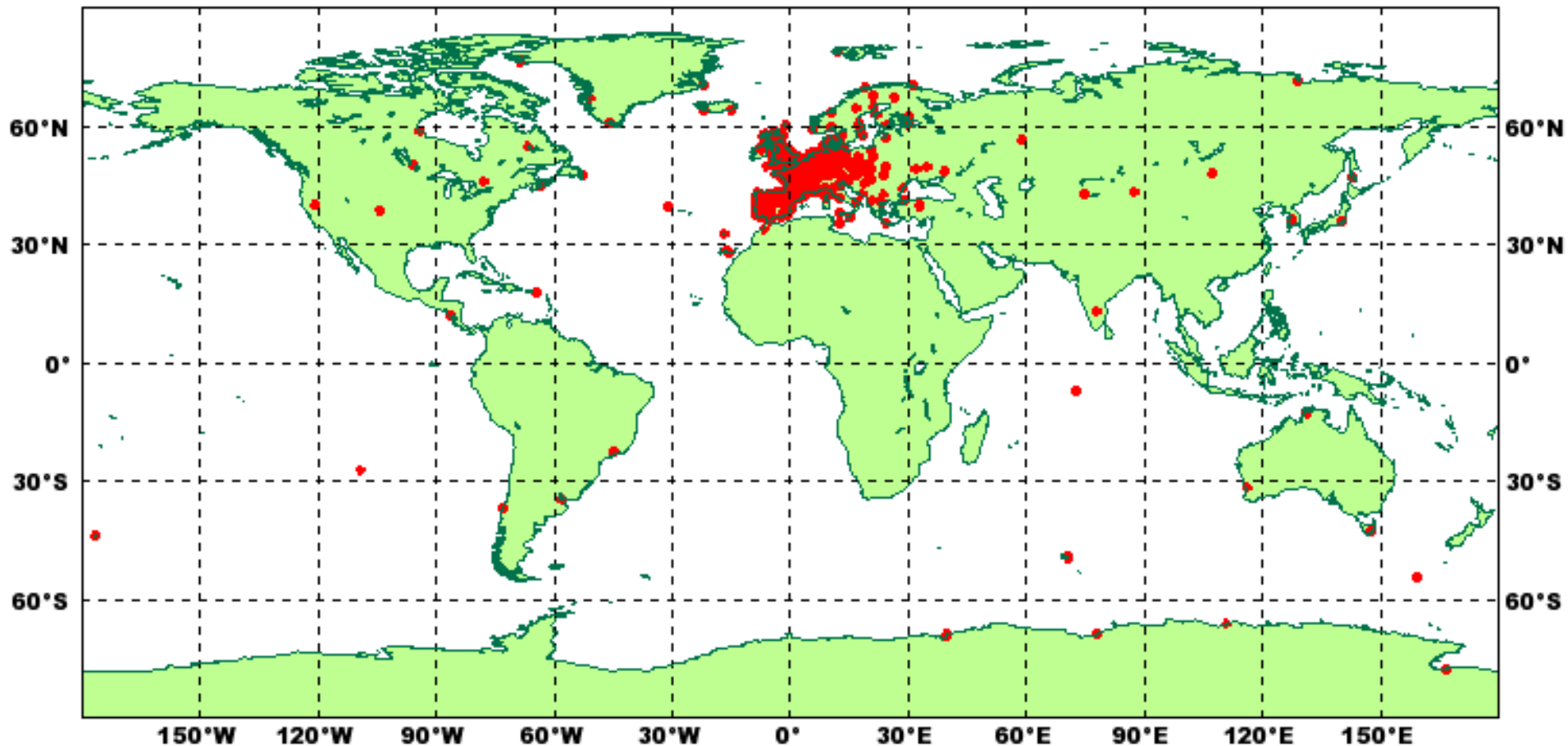
VERIFICATION VS OBSERVATIONS

OVERALL CHANGE IN NWP INDEX = -0.022



Recent developments

Data Coverage: GroundGPS (30/12/2010, 6 UTC)
Total number of observations assimilated: 307





Future

- Monitor global model in parallel run
- Update stationlist for all models
- Tune assimilation in global to try and achieve better impact
- Retirement of NAE model... 2013?
- Improvements to assimilation technique



Questions and answers