

OLG LAC Report 2013

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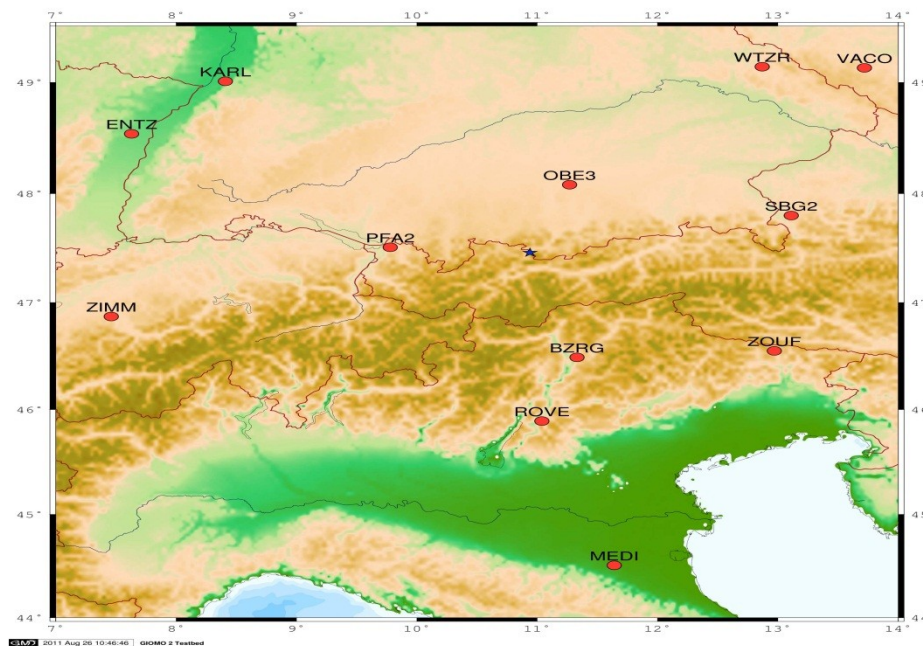
▪ Structure

- 1 Person + assistance , total 0.7 person years, 3 Linux - Workstations + 2 Virtual Workstations on Xen Servers
- 2 x Bernese Software 5.0, 1x Bernese Software 5.2
- Own unix shell and perl scripts (data preparation + check, transmitting and archiving products) for automatization
- Generic Mapping Tool 4.2 (map design)
- Matlab R2011a (signal analysis)
- Web page

▪ Main Topics

- Network analysis (5 networks, 300 stations)
- Time series analysis and velocity determination
- Reprocessing
- Research testbeds (earthquake precursors in the ionosphere)

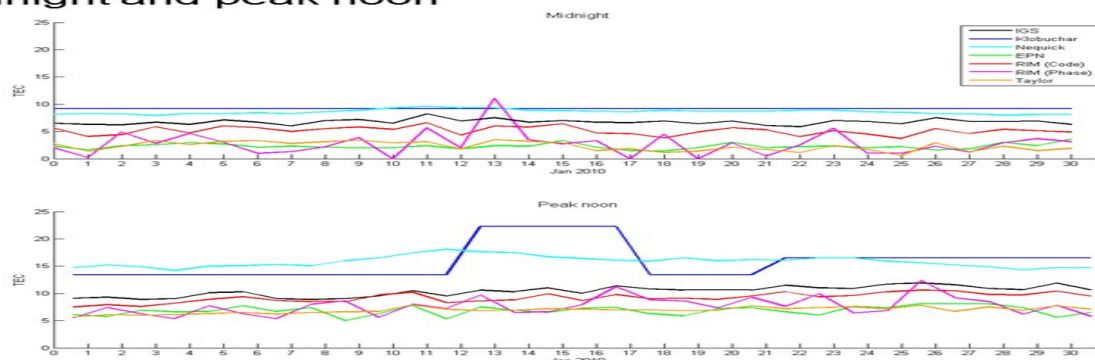
- National Project 2011-2012
- Testbeds Alps + Greece
- Comparison Global - Europe - Theoretical Models
- NRT + Postprocessing
- Improvement in sub-meter accuracy
- **Topic closed**



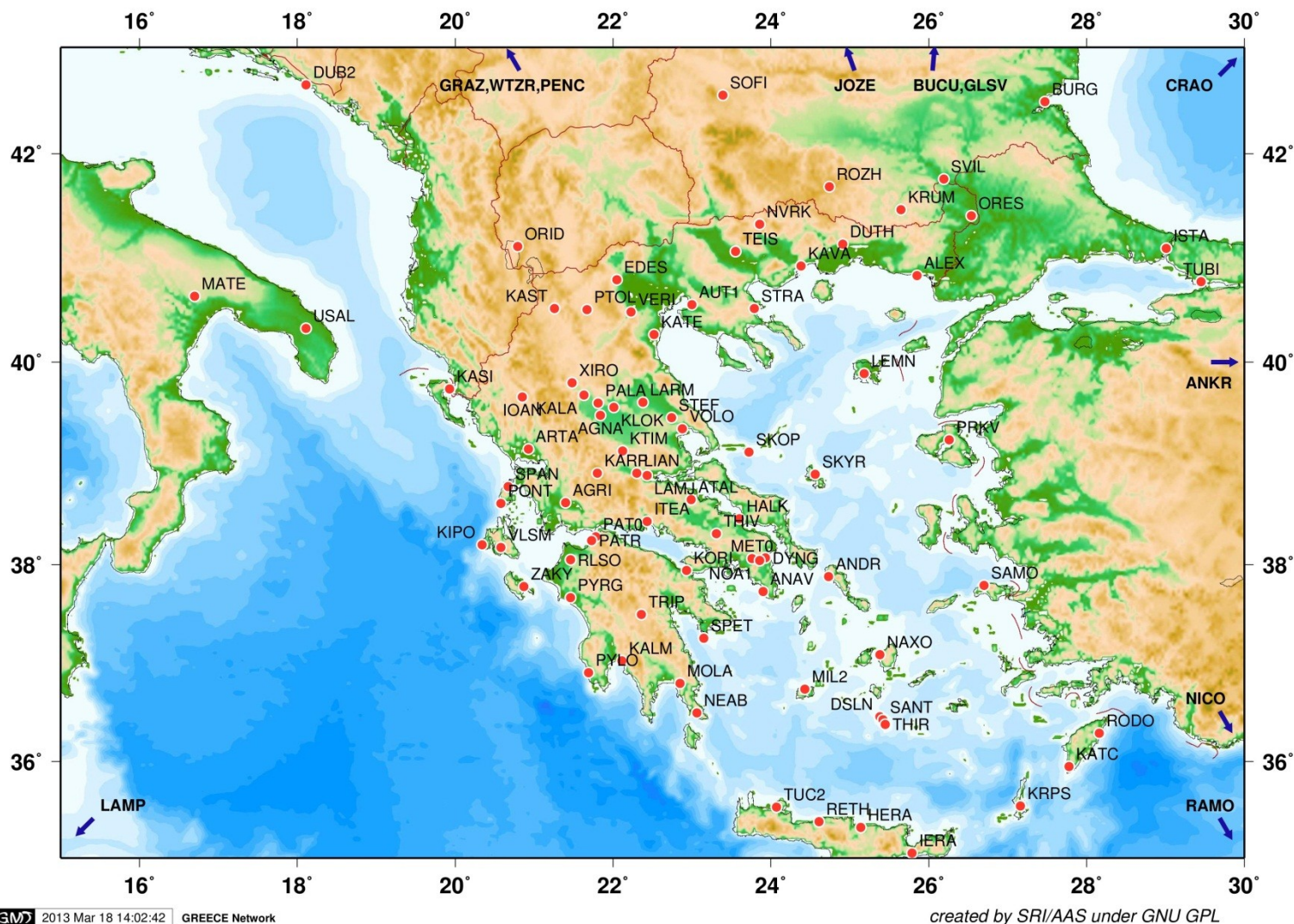
Next Generation near real-time IONospheric MOdels

Comparison of global and regional ionospheric maps (3/4)

- Midnight and peak noon

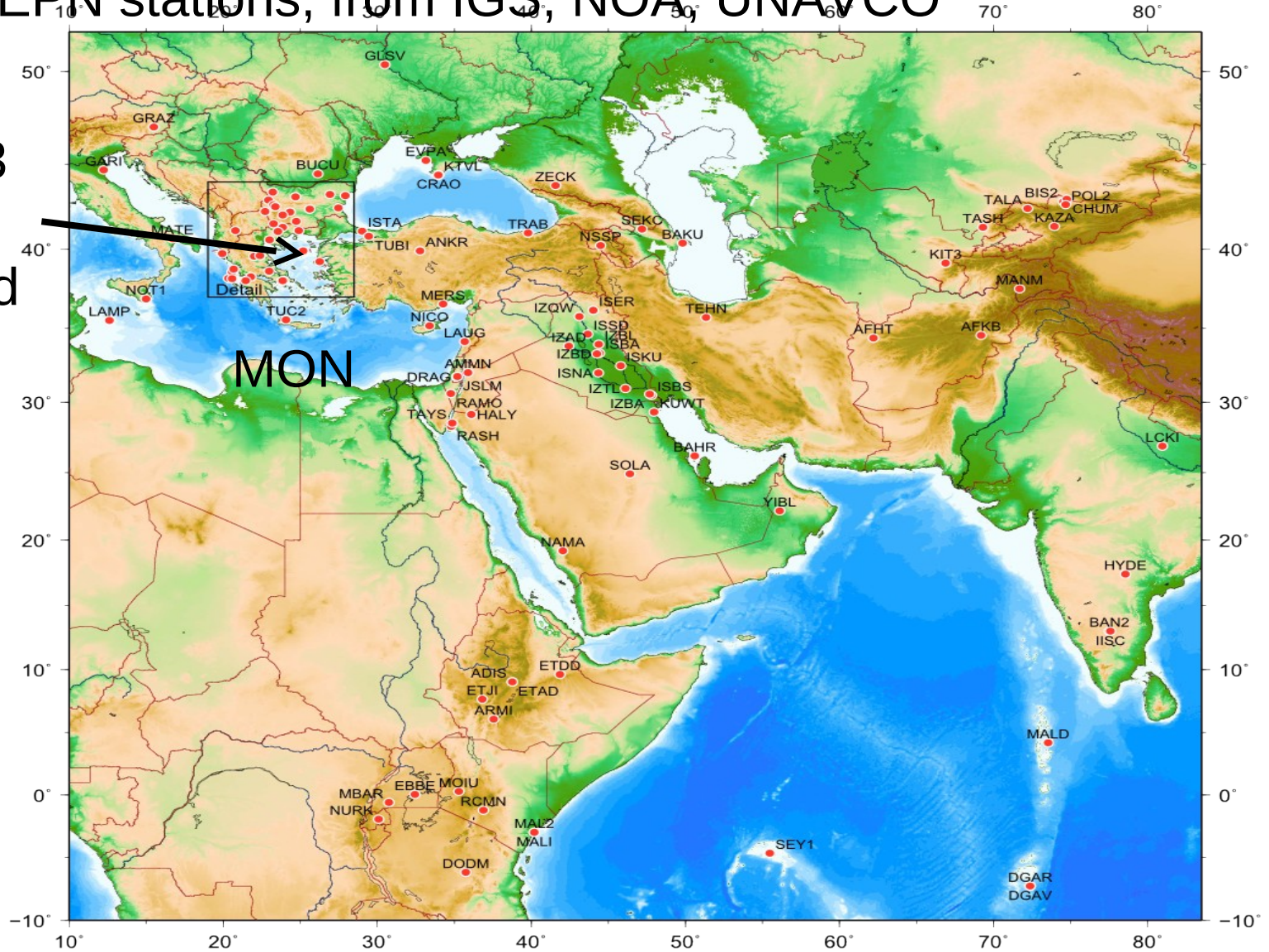


GREECE : 75% non-EPN stations, mainly from NOA

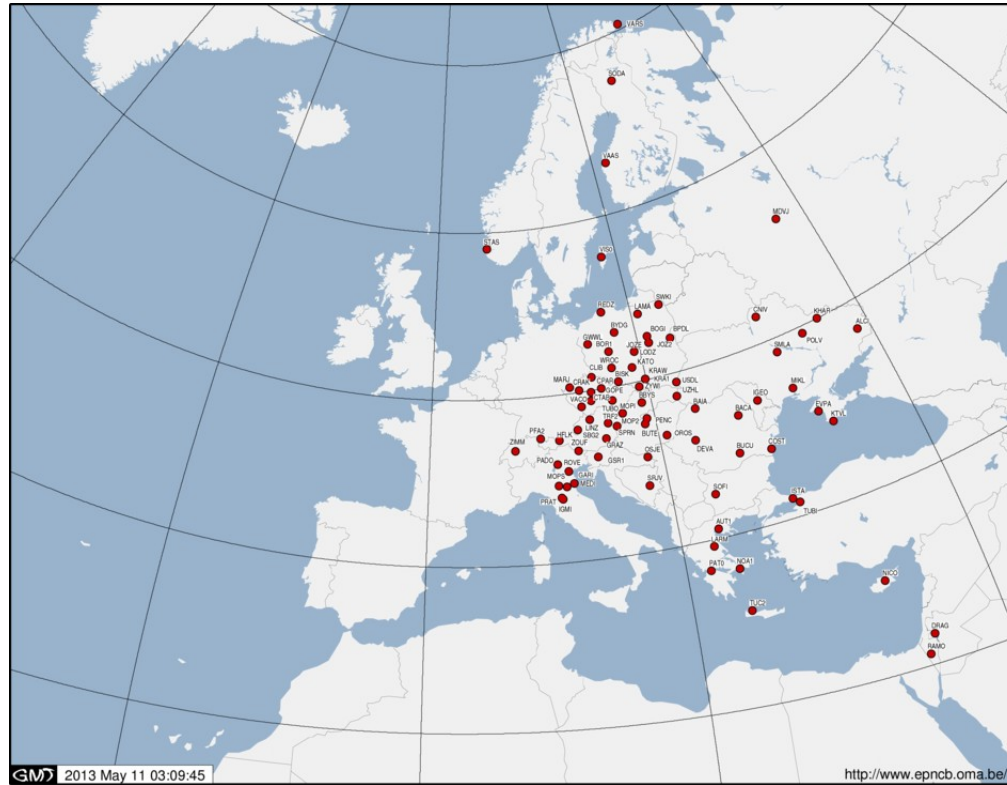


75% non-EPN stations, from IGS, NOAA, UNAVCO

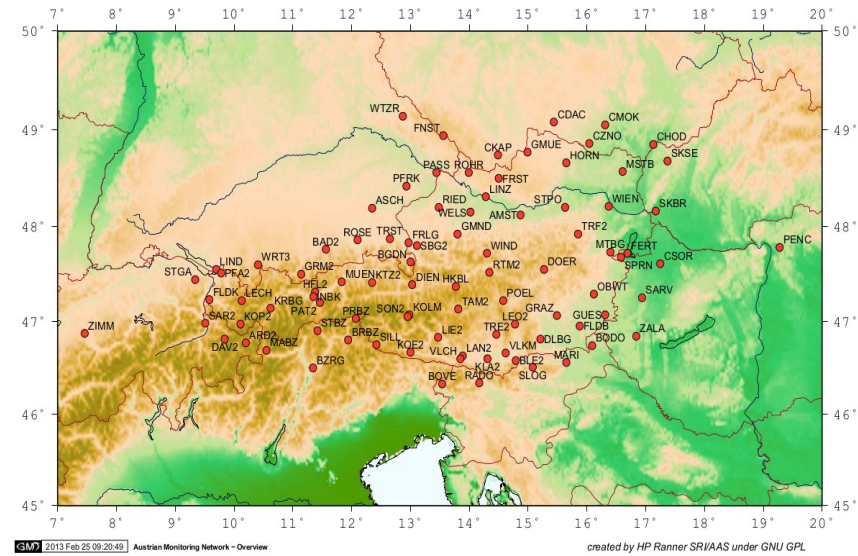
Until 2013
GREECE
embedded

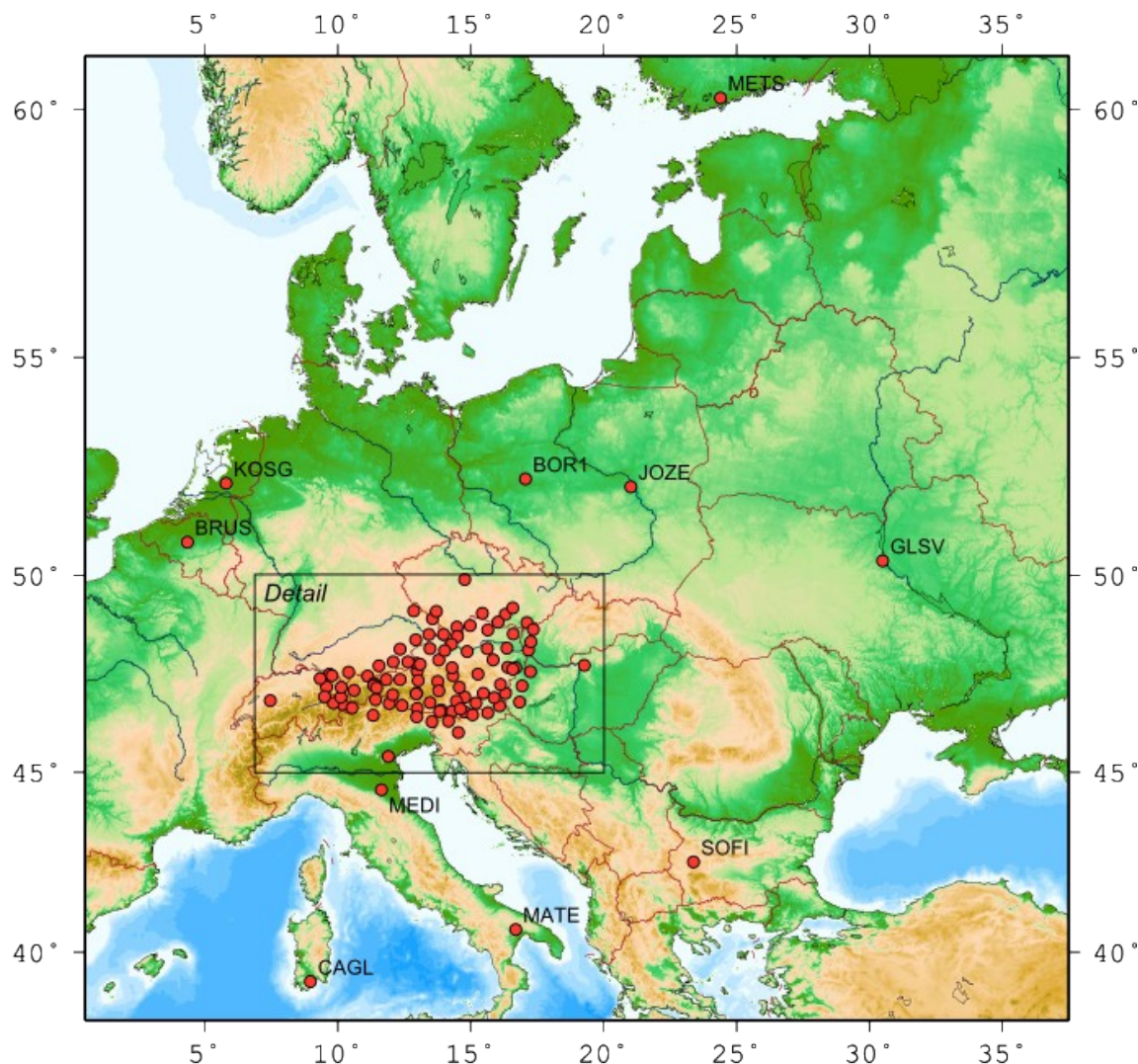


EPN



AMON





AMON

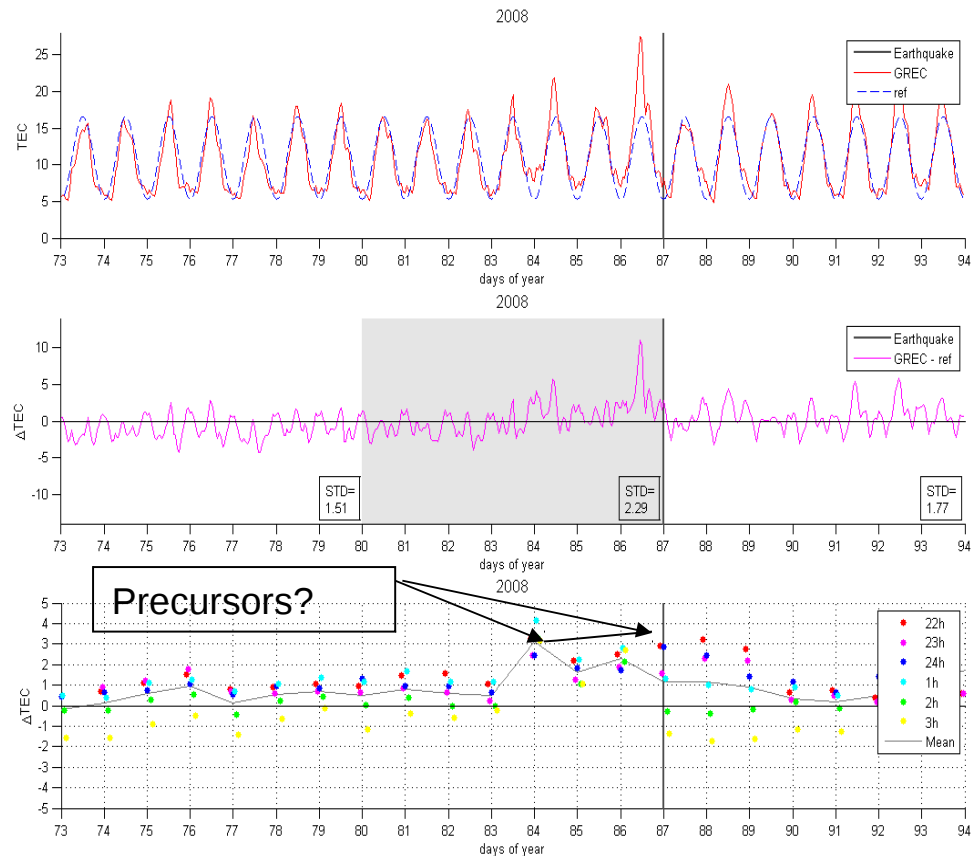
15 old EPN
stations added,
total of 100
stations

IGS08 PCVs +
CODE orbits

2006 finished,

2005 under
construction

- Generated from GPS stations
- Phase + double differences
- Focus on Greece 2008-2011, 8 earthquakes with magnitude >5.5
- Partially not significant, partially geomagnetic disturbances
- Larger sample needed, regional geomagnetic field needed



- Contribution to EPN **no reprocessing, but subnetworks (densification)**
- **Reprocessing** of other networks and campaigns
- Densified **velocity and strain** field in Central Europe and the Mediterranean
- Projects : **Earthquake precursors** from the ionosphere, **Multipath mitigation for Galileo antennas** (2012-2013), **TRF2 precipitation** combined from GNSS, meteorology and gravity

Thank you