

Symposium of the IAG Subcommittee for Europe
(EUREF)

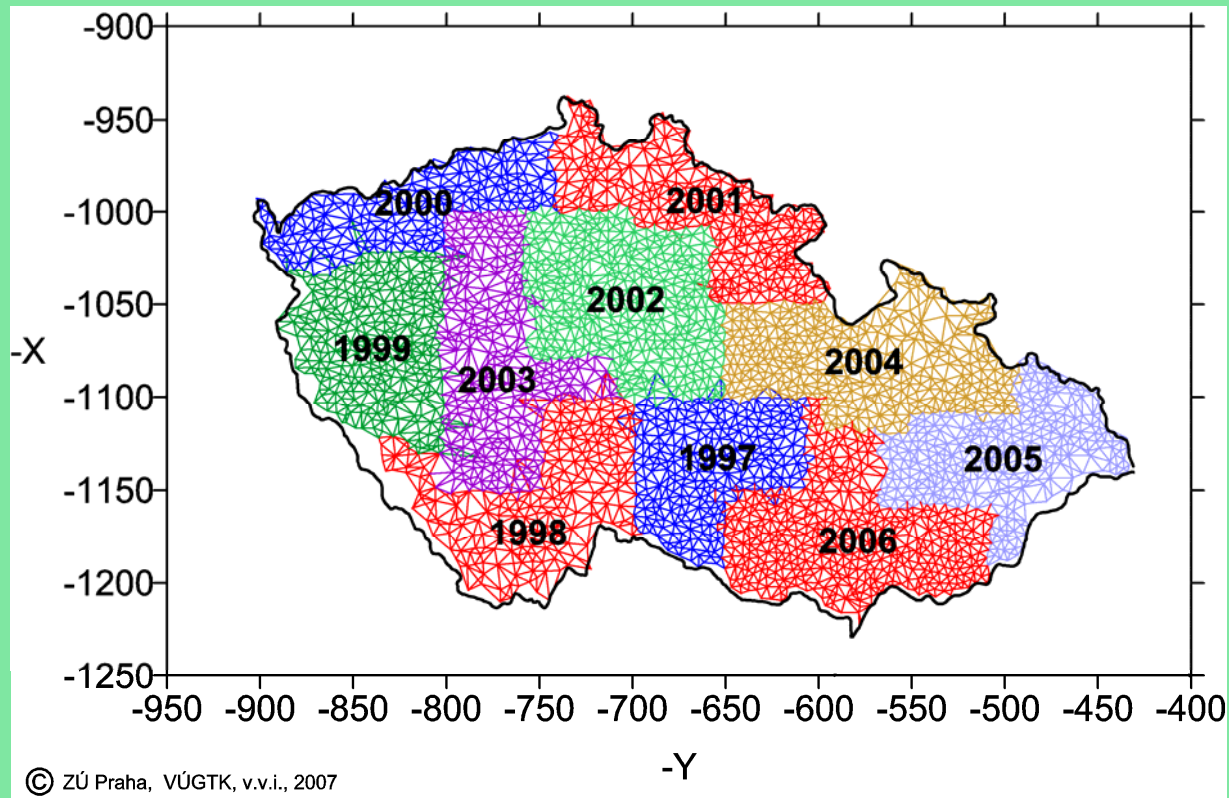
Brussels, Belgium, 18 - 21 June, 2008

National Report of the Czech Republic
EUREF Related Activities in the
Czech Republic 2007 - 2008
National Report

presented by J. Šimek

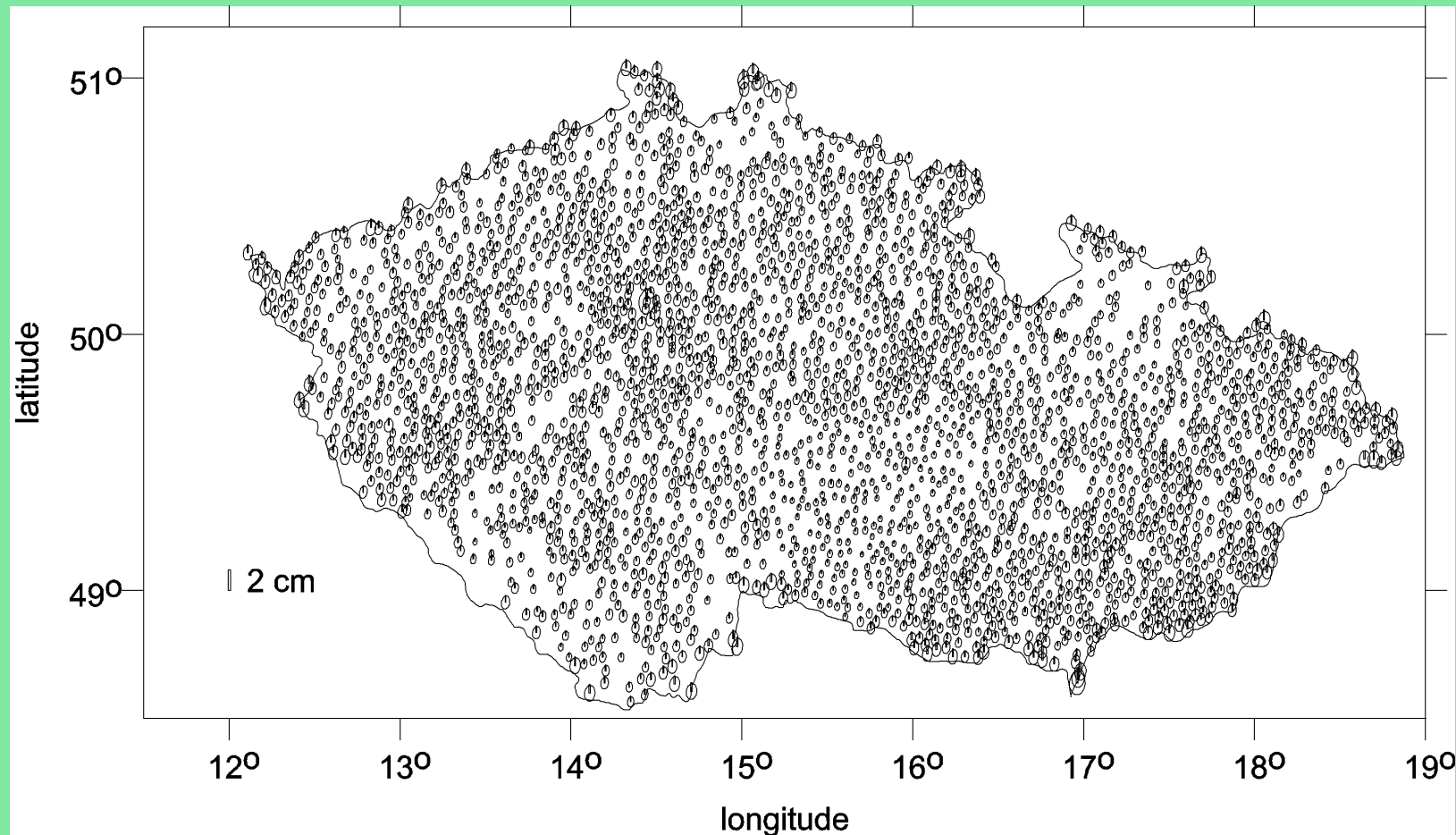
Status of EUREF in the CR

Progress of densification by „Selective maintenance“
performed by Land Survey Office

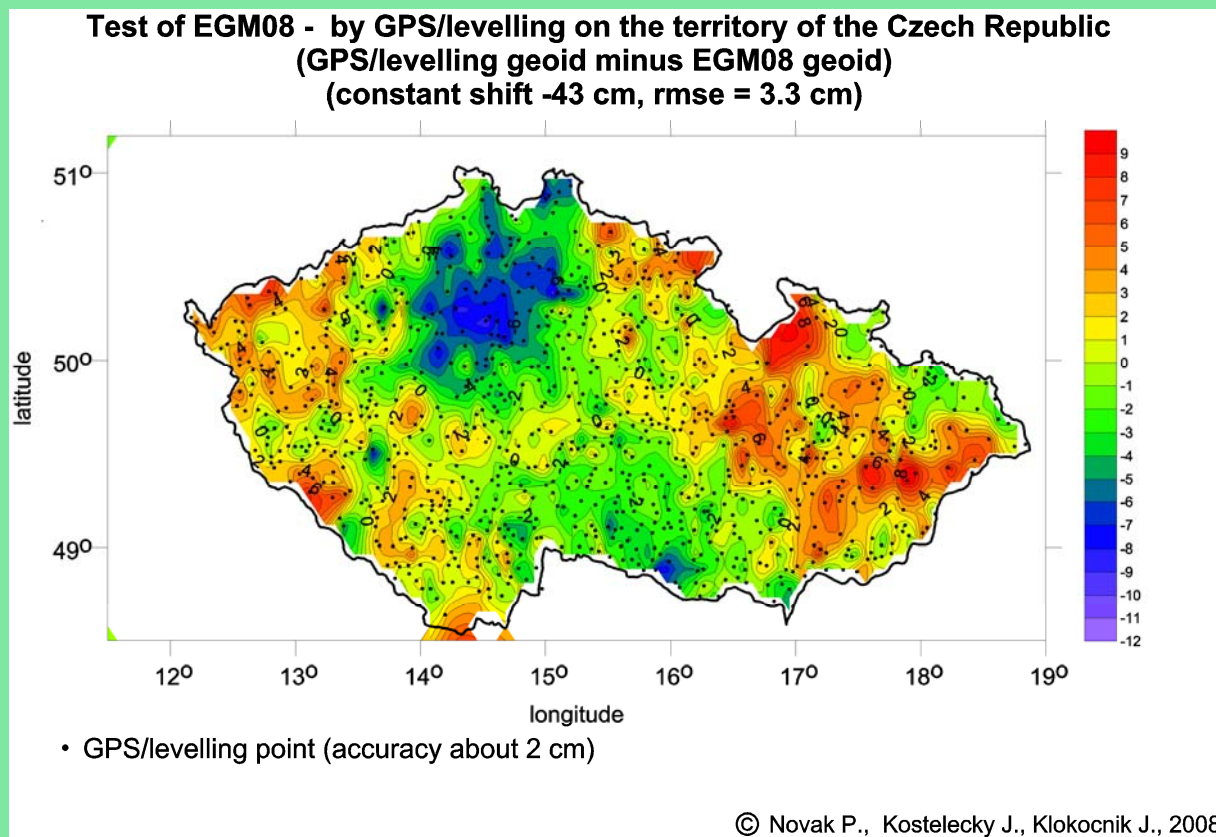


**1997 – 2006: 3094 new (GPS) stations, accomplished
in 2006 by Land Survey Office**

Processing densification action „Selective Maintenance“ Error ellipses and rms errors of heights

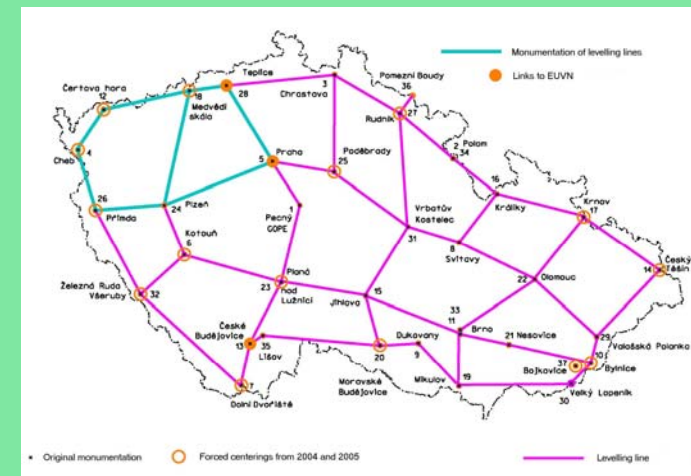
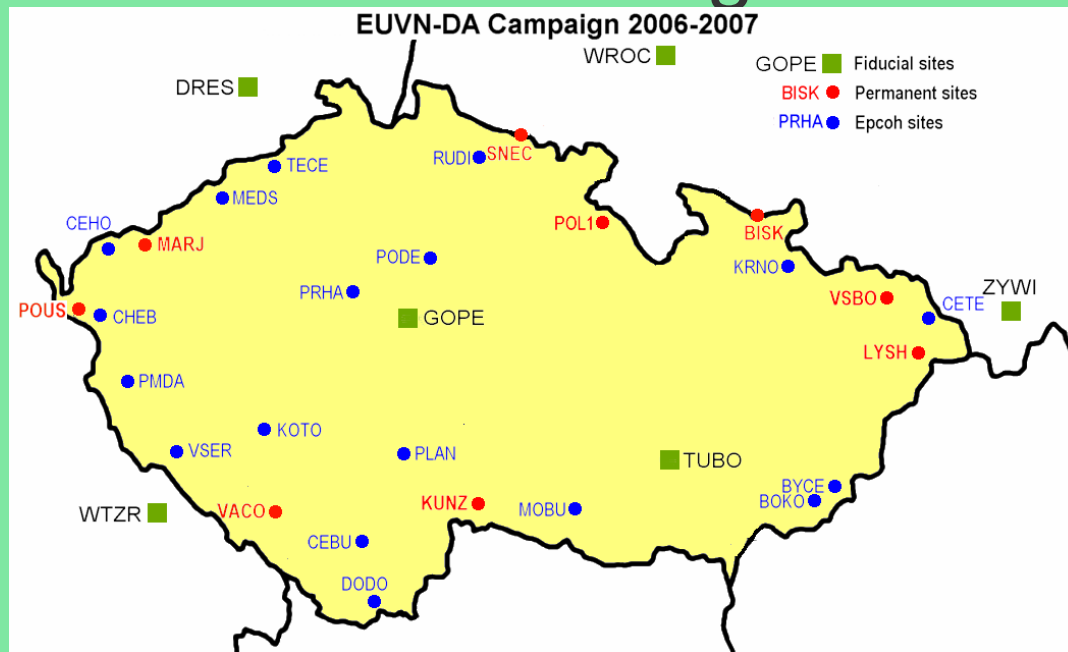


Test of quasigeoid based on EGM08 by GPS-levelling (rms difference is 3.3 cm)

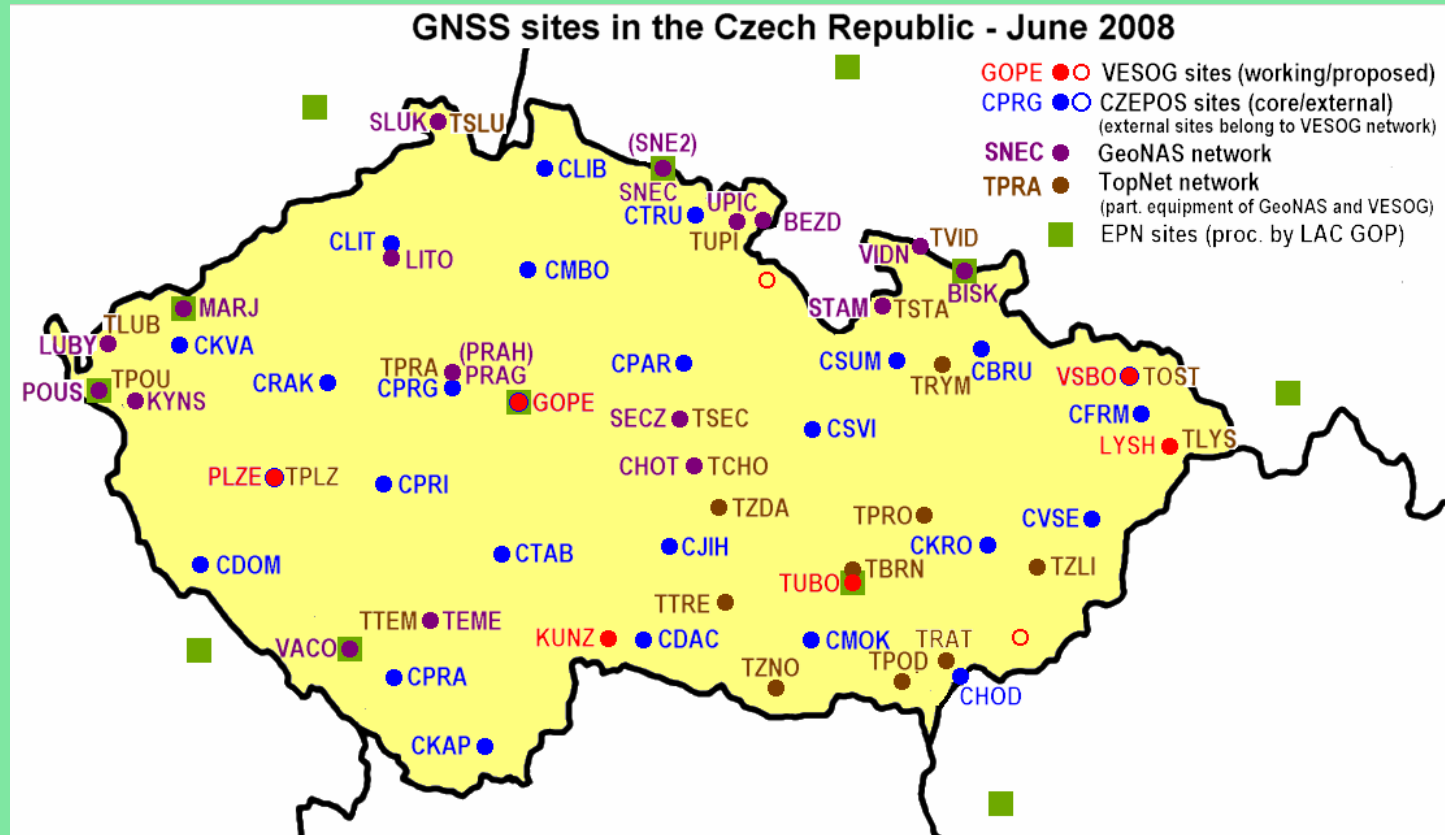


EUVN_DA – Related Activities (Land Survey Office)

- 16 GEODYN stations were observed within EUVN_DA
- 19 points of GEODYN network were connected by precise levelling with Czech levelling network



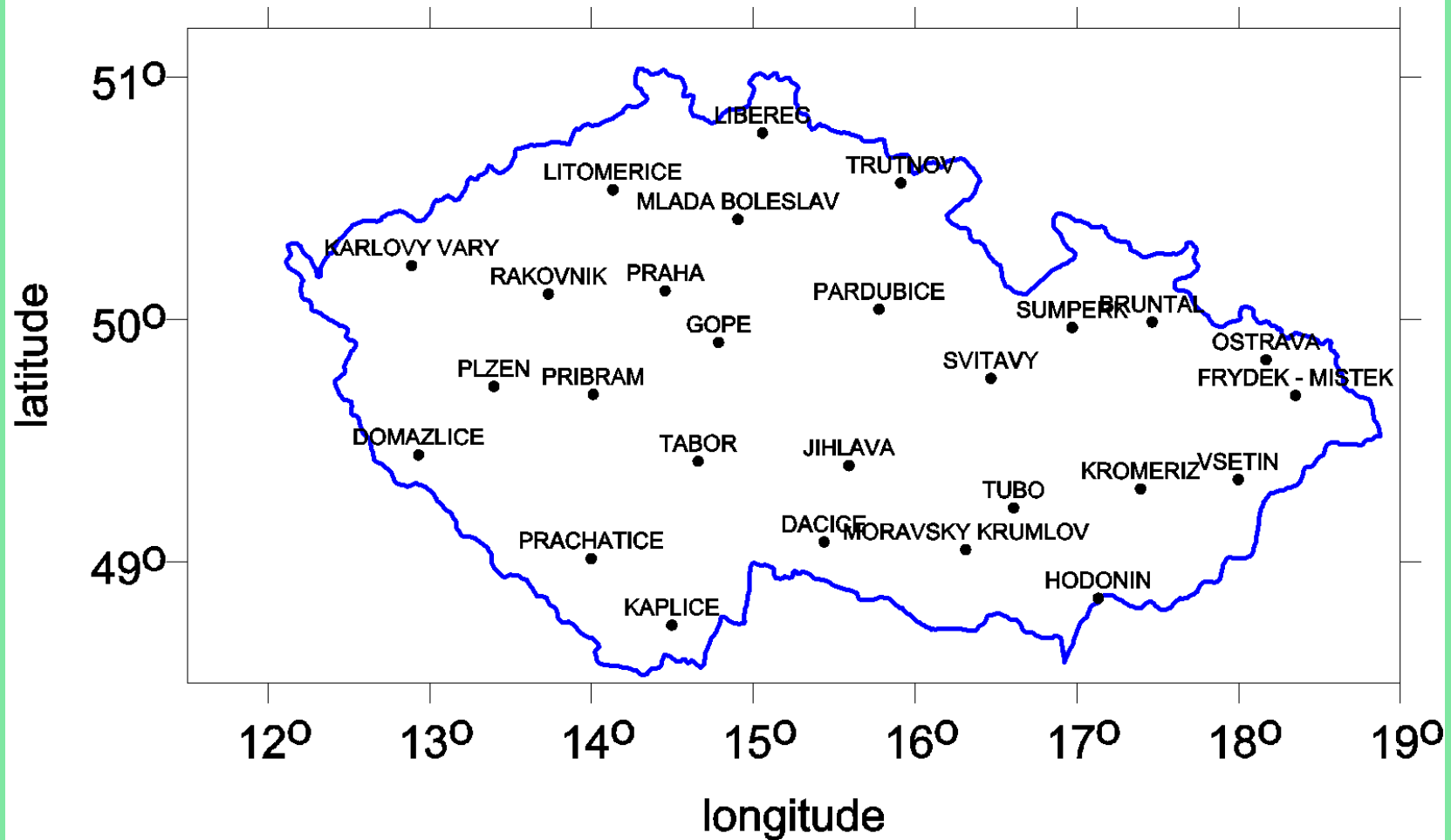
Permanent GNSS networks in the CR



VESOG, CZEPOS, GeoNAS, TopNet

CZEPOS

CZEPOS network - status December 2006

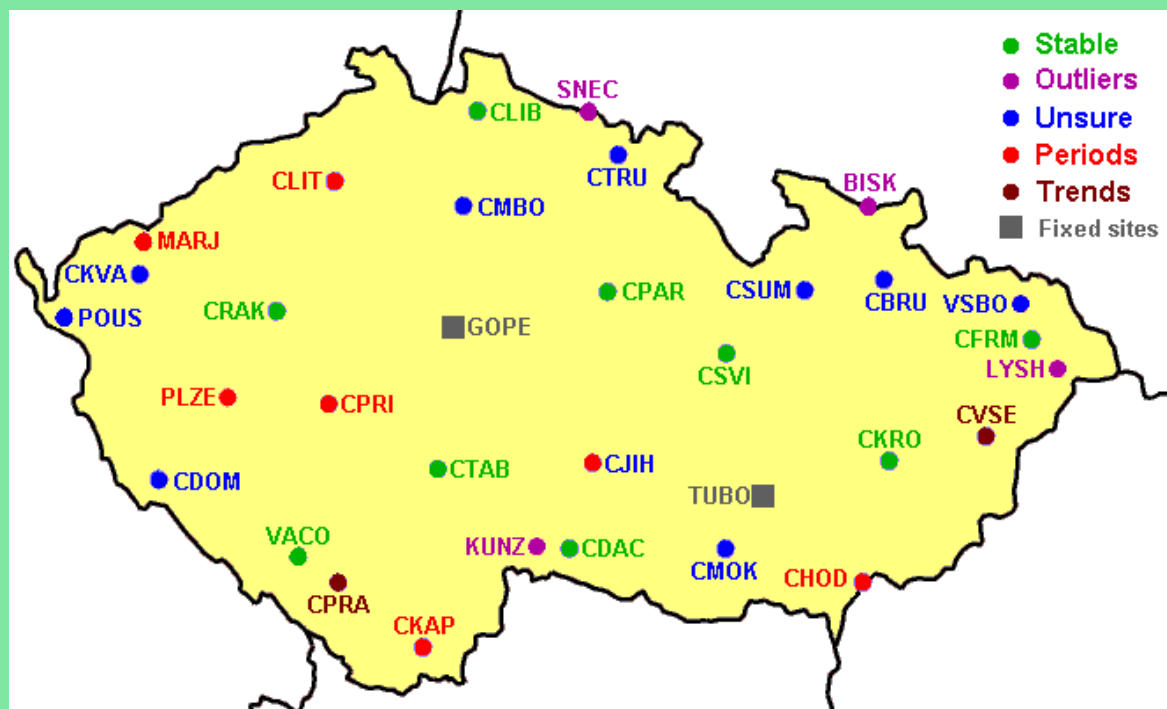


27 stations

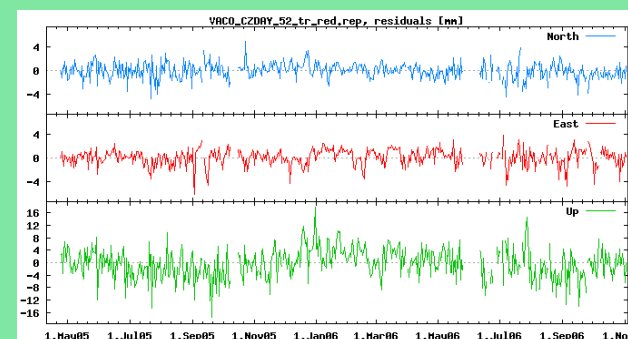
Test of repeatability of weekly solutions of CZEPOS stations in the ETRF89 frame

component	network solution	network solution after removing of systematics
W-E	0.19 cm	0.12 cm
N-S	0.20 cm	0.12 cm
height	0.50 cm	0.20 cm

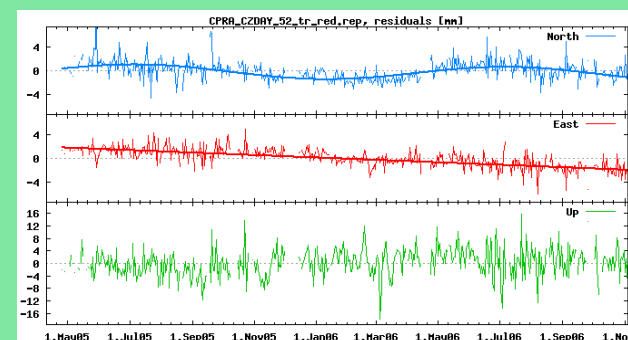
Test of stability of the Permanent networks stations (solution GOP-LAC in the ETRF89 frame)



stable

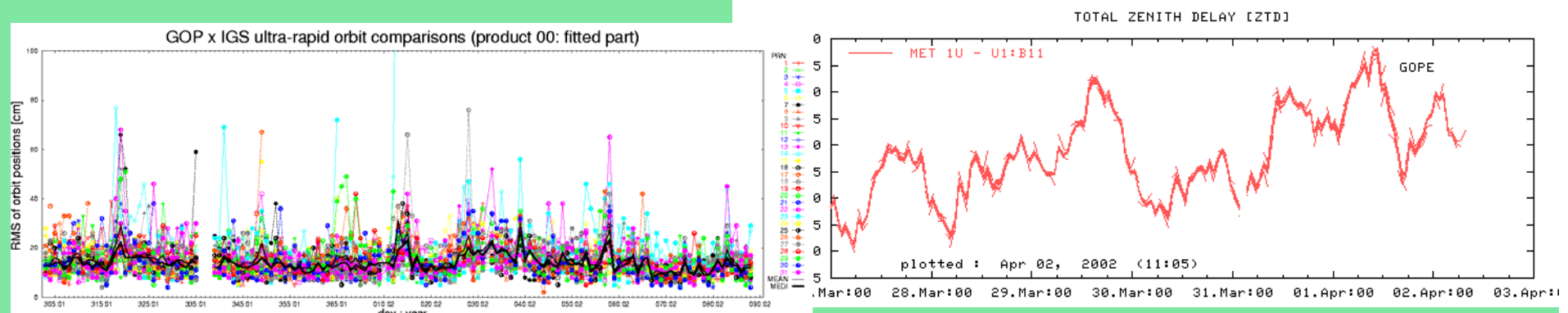


unstable

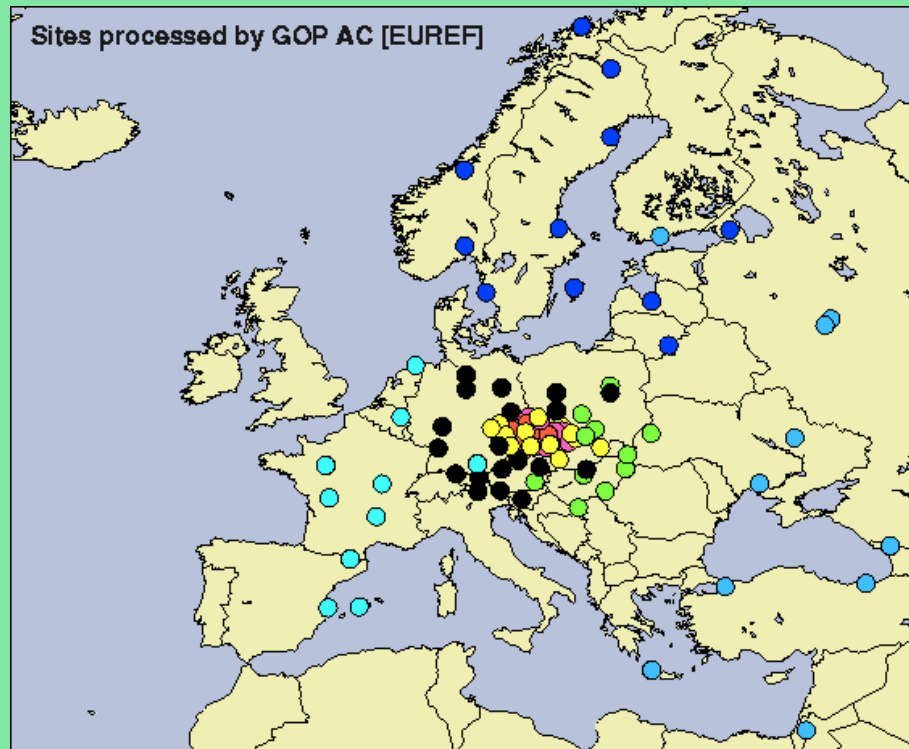


Activities of EUREF Local Analysis Center GOP

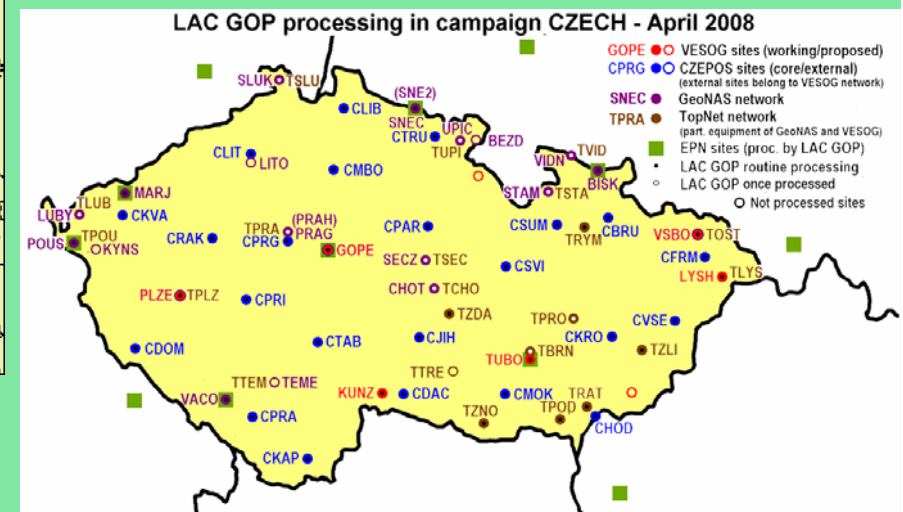
- data analysis from 93 EPN permanent stations (May 2008)
- Since GPS Week 1400, recommended strategy changes were implemented (absolute PCV model, IGS 2005 geodetic datum, elevation cutoff 3° , troposphere gradients).



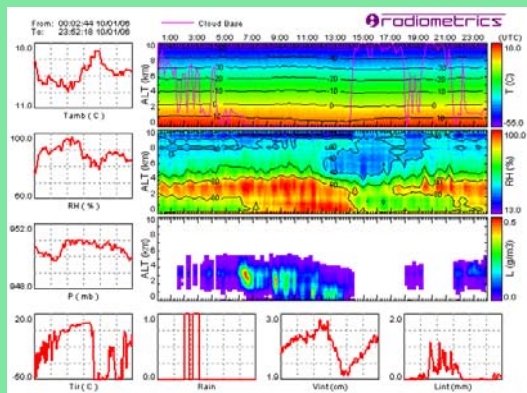
Activities of EUREF Local Analysis Center GOP



Czech stations
processed at GOP-LAC



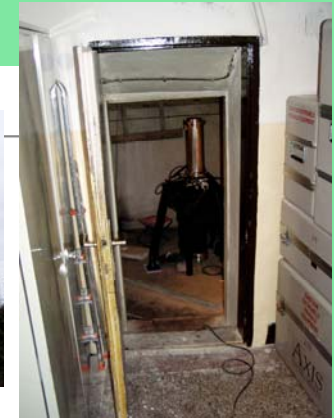
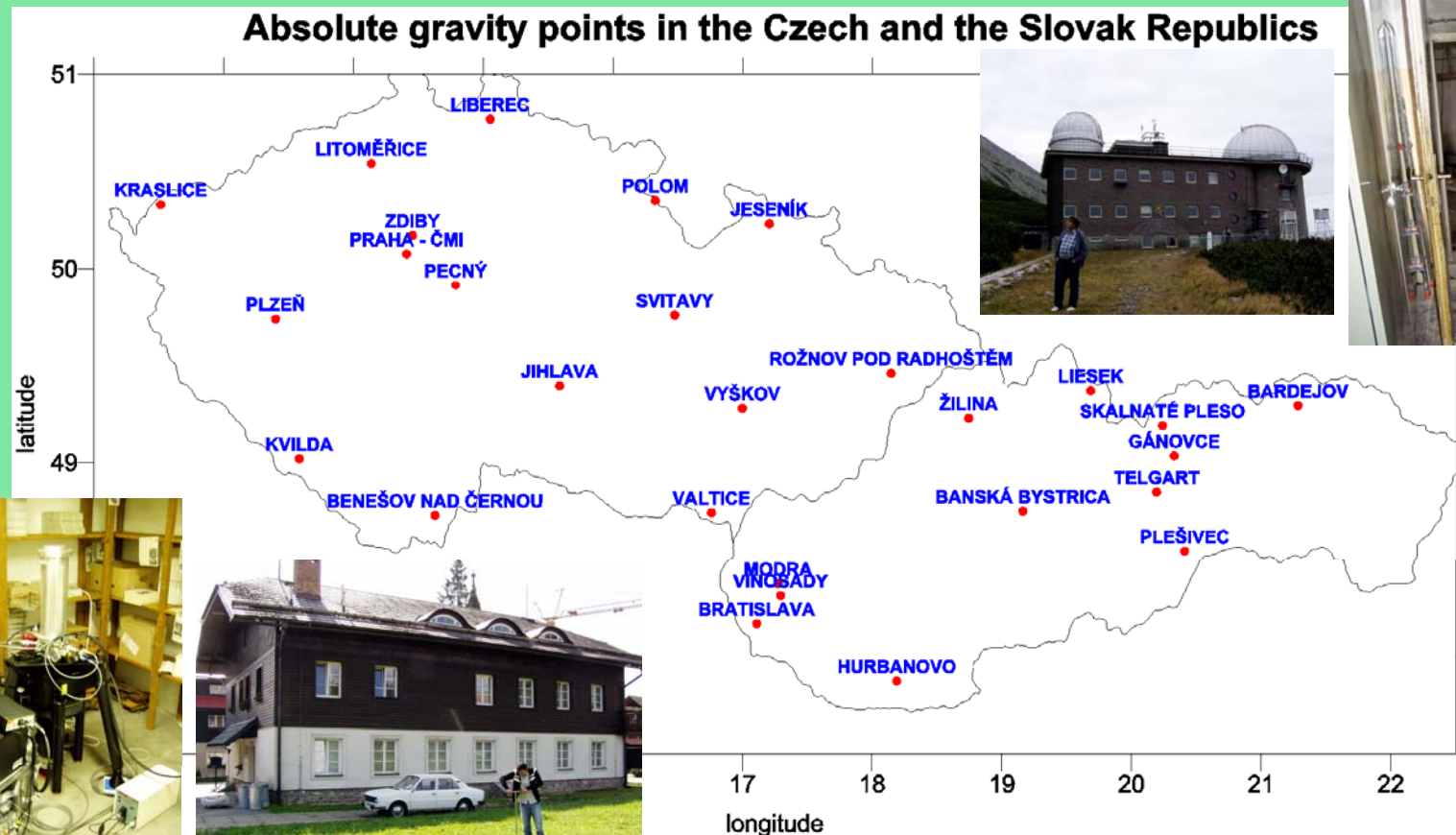
New instruments at GOPE



Water vapour radiometer
Superconducting gravimeter GWR

Absolute Gravimetry in the CR and SR with FG5 No. 215 (RIGTC)

(cooperation with Land Survey Office, Prague,
Geodetic and Cartographic Institute, Bratislava, and STU Bratislava)

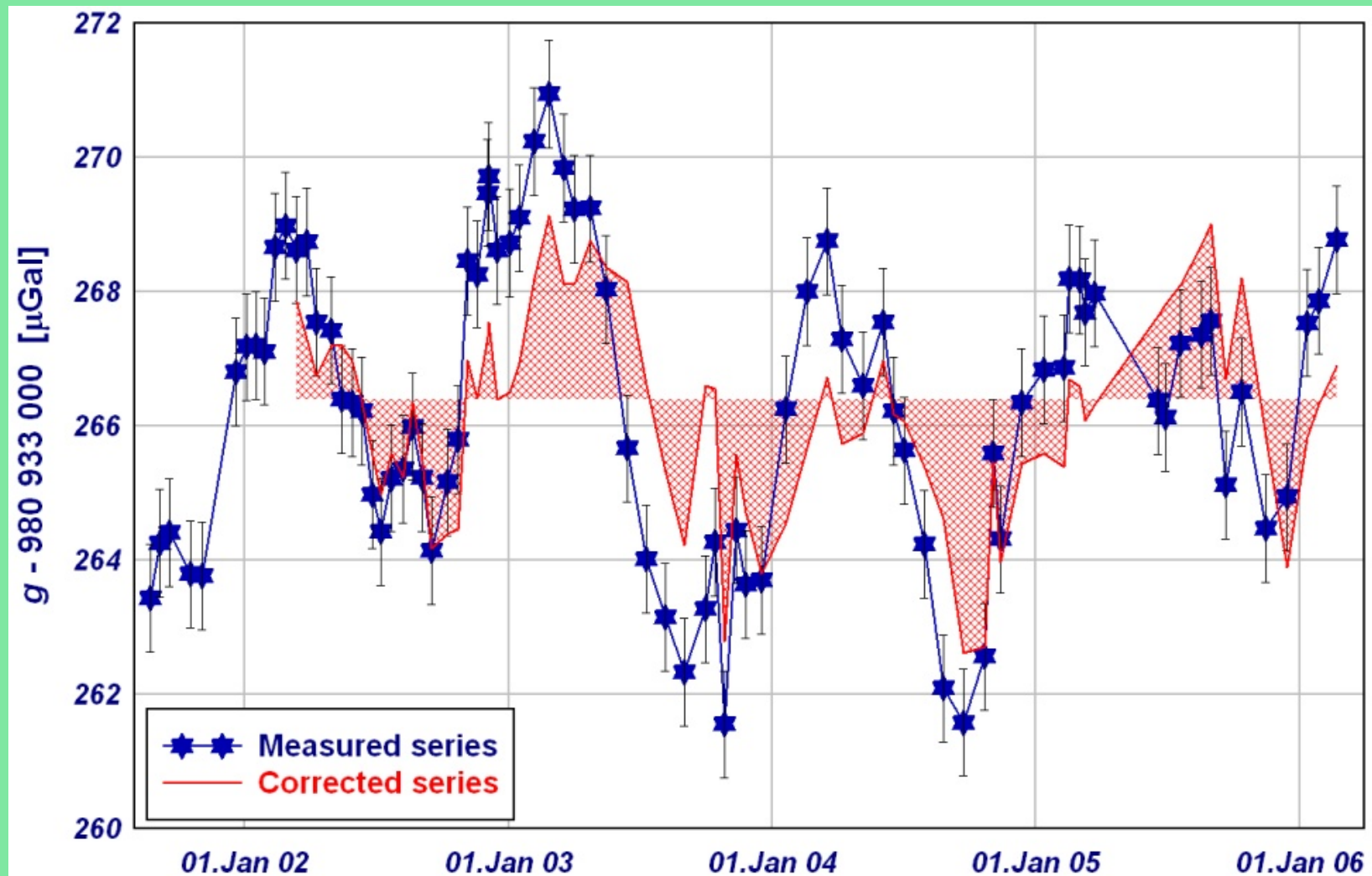


Tidal Gravimetry at GO Pecný and Environmental Effects

- ☞ gravity time series by Askania Gs15 No. 228 and by LCR 137
- ☞ calibration by FG5 No. 215 absolute gravimeter
- ☞ superconducting gravimeter GWR
- ☞ climatological station (of Charles University)
- ☞ meteorological parameters
- ☞ soil moisture
- ☞ ground water level



Absolute gravity measurements at GO Pecný



This report was compiled in cooperation between

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