Symposium of the IAG Subcommission for Europe (EUREF)
London (UK), 6 - 9 June, 2007

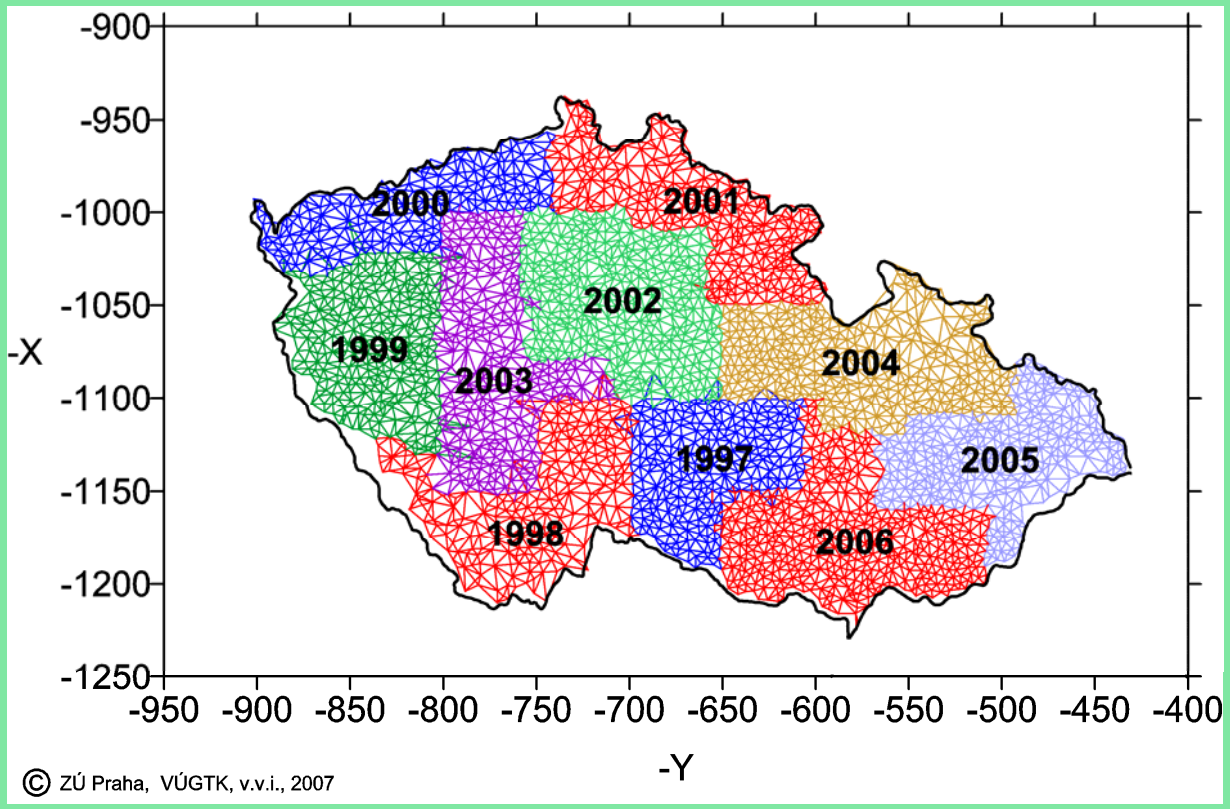
National Report of the Czech Republic

EUREF Related Activities in the Czech Republic 2006 - 2007 National Report

presented by J. Šimek

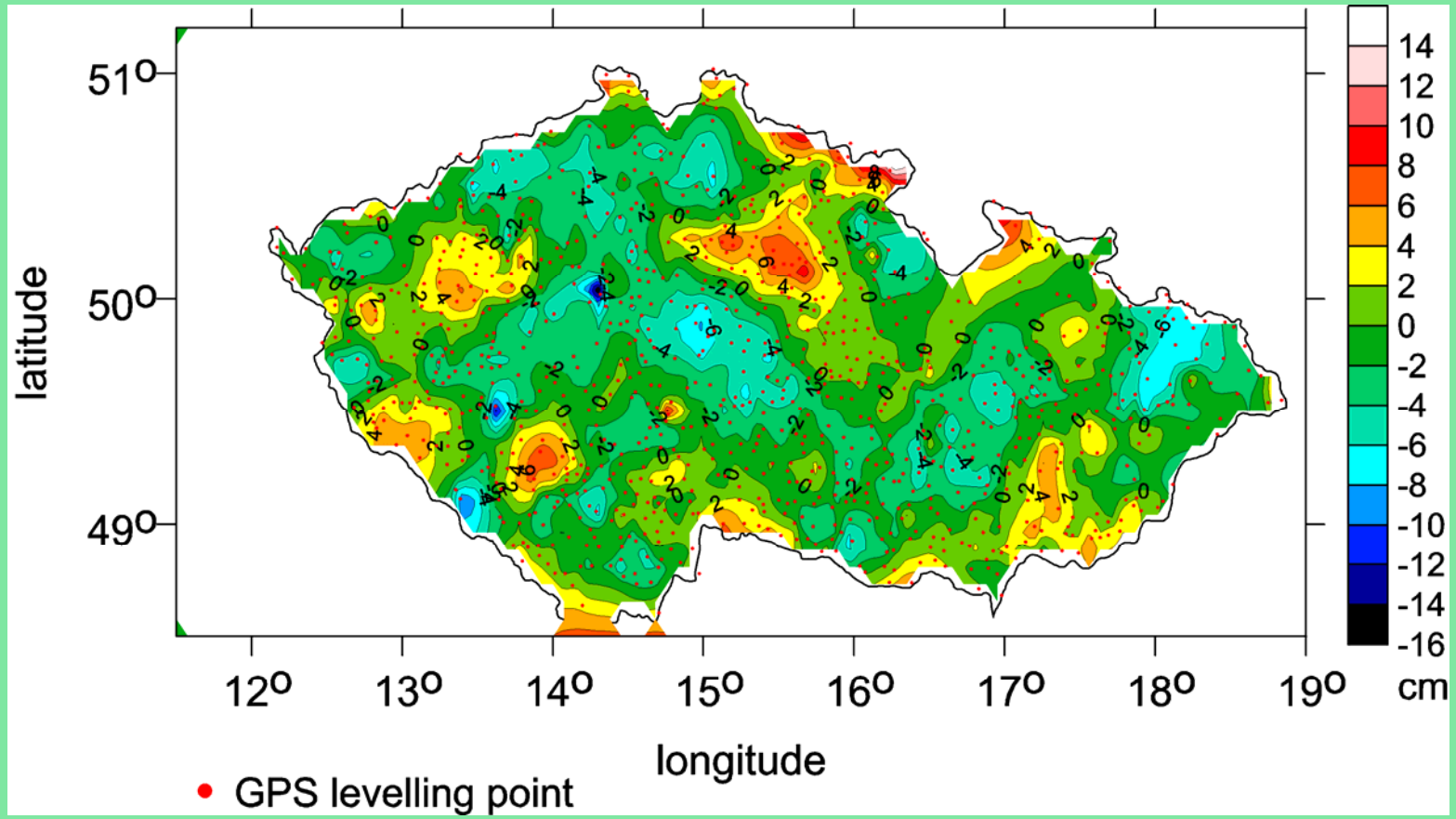
Status of EUREF in the CR

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



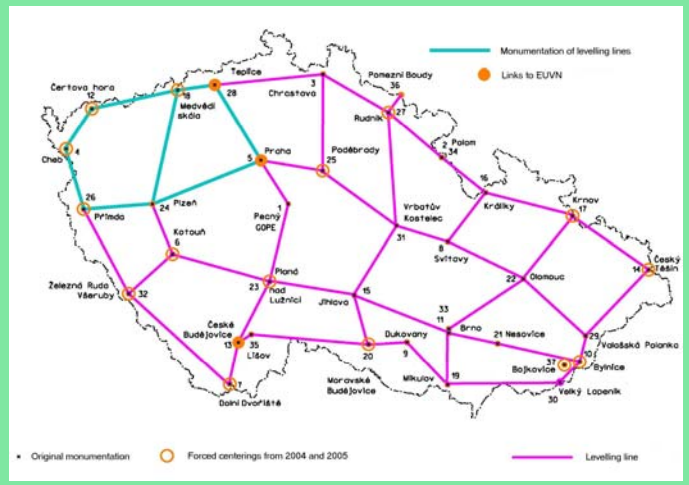
1997 – 2006: 3094 new (GPS) stations, accomplished in 2006 by Land Survey Office

Test of quasigeoid CR2000 by GPS-levelling (rms difference is 3.3 cm)

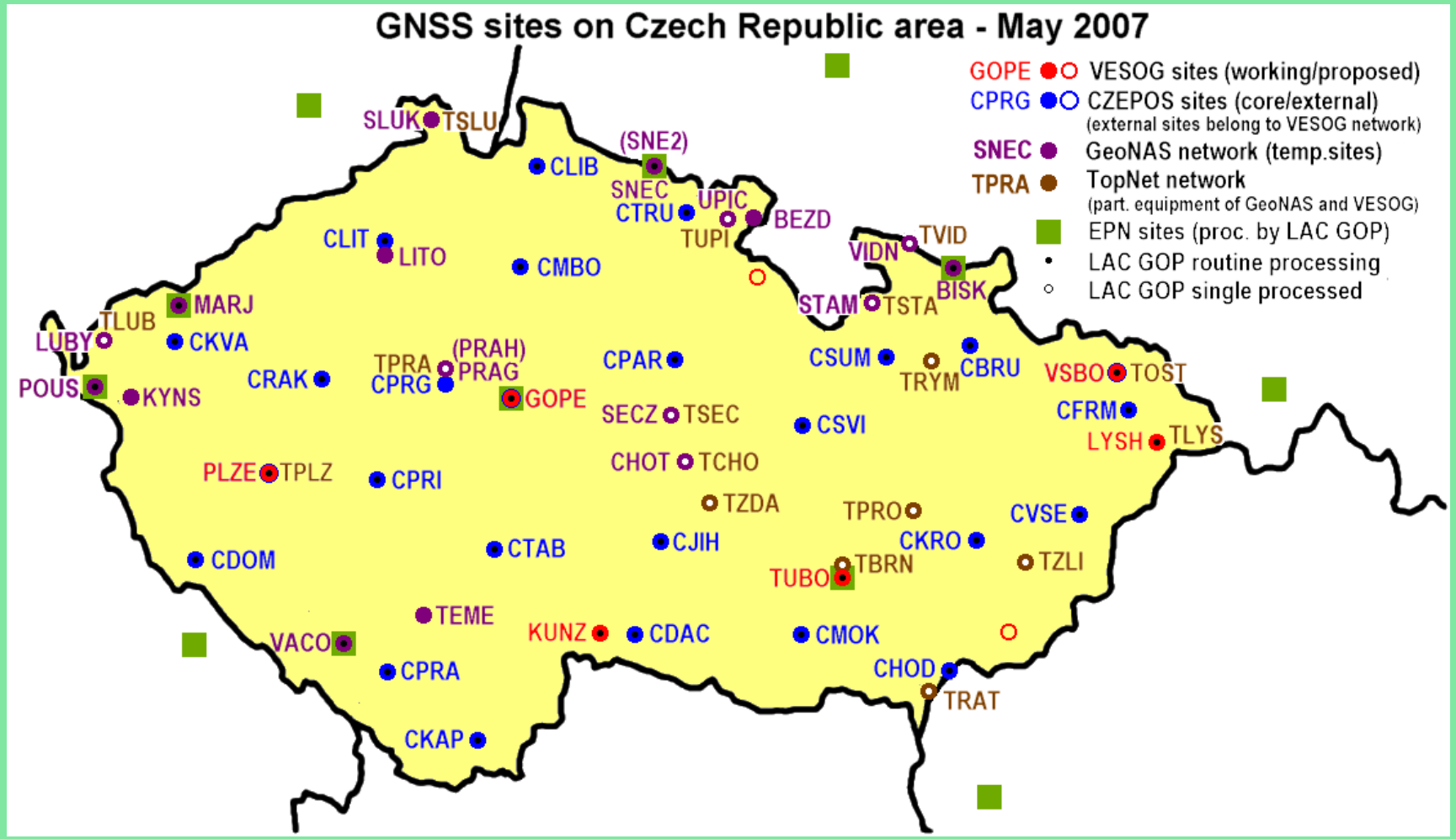


EUVN – Related Activities (Land Survey Office)

- 3 new stations were implemented to EUVN network: Praha, Teplice and České Budějovice
- 19 points of GEODYN network were connected by precise levelling with Czech levelling network

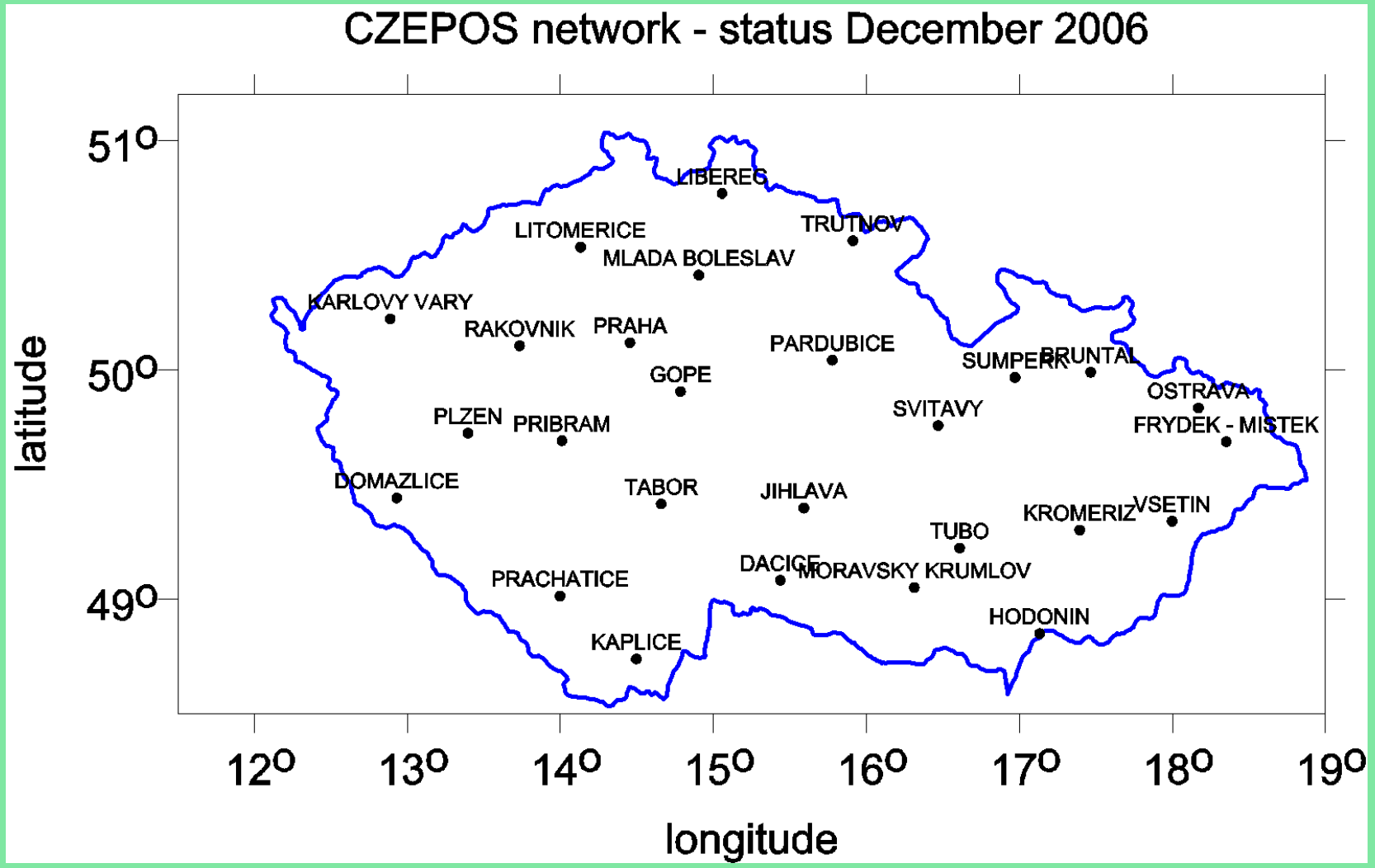


Permanent network extension in the CR



VESOG, CZEPOS, GeoNAS, TopNet

CZEPOS



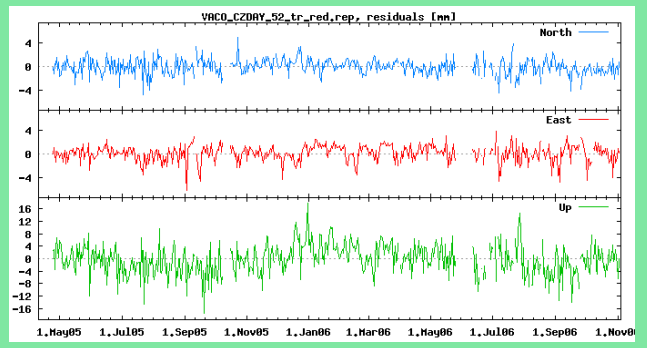
27 stations

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

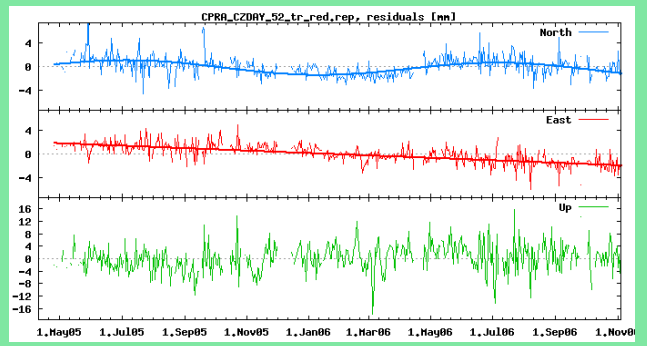
component	network solution	network solution after removing of systematics
W-E	0.19 cm	0.12 cm
N-S	0.20 cm	0.12 cm
height	0.50 cm	0.20 cm

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

stable

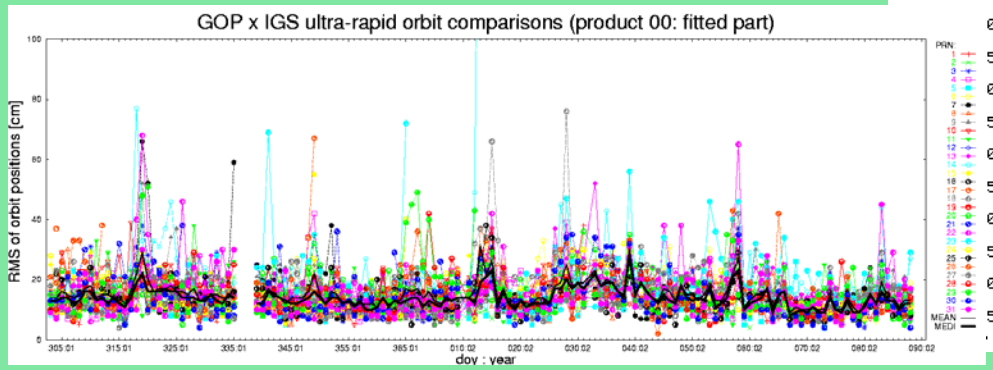


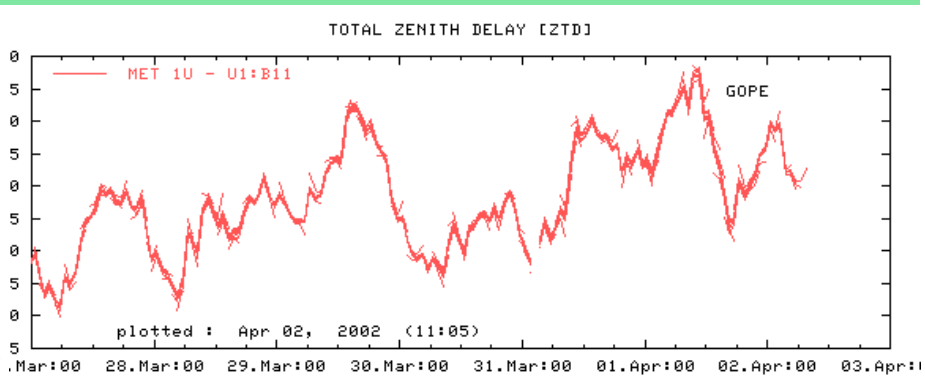
unstable



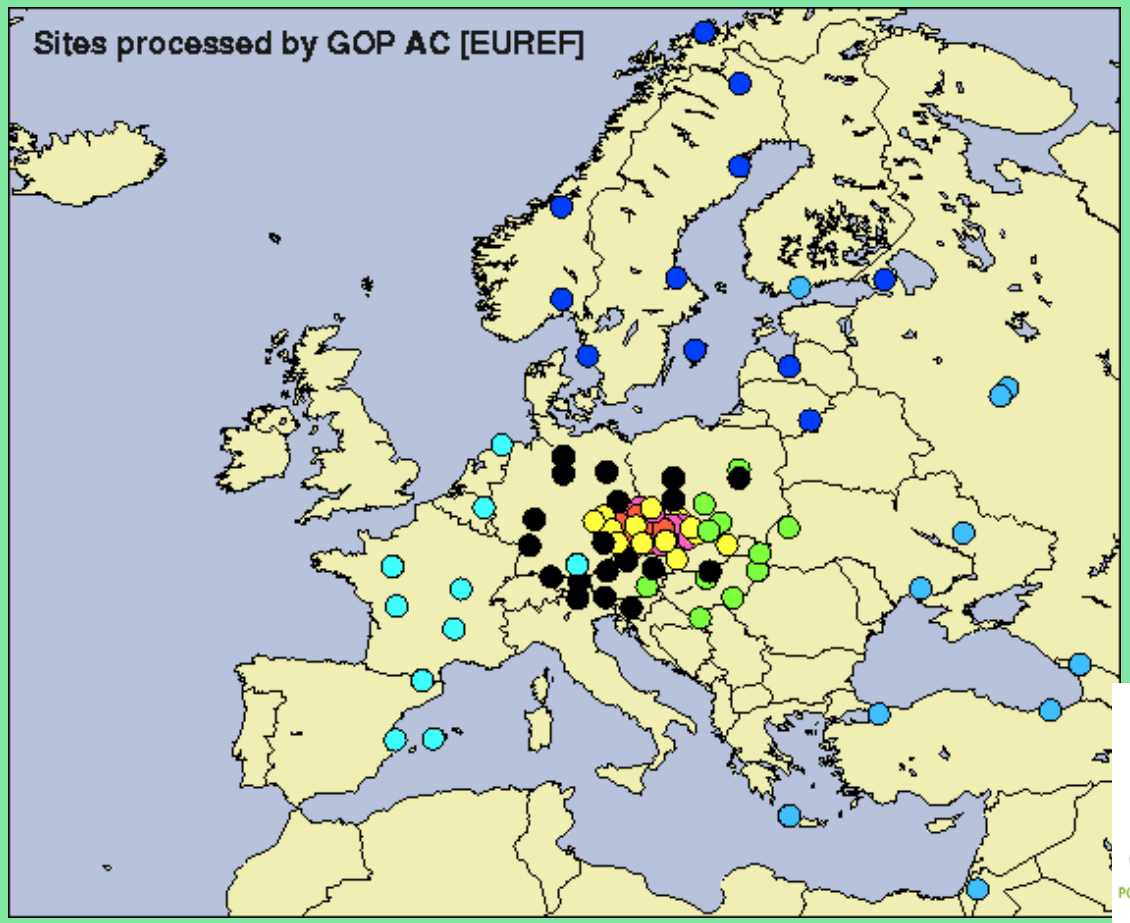
Activities of EUREF Local Analysis Center GOP

- data analysis from 93 EPN permanent stations (May 2007)
- Since GPS Week 1400, recommended strategy changes were implemented (absolute PCV model, IGS 2005 geodetic datum, elevation cutoff 3°, troposphere gradients).

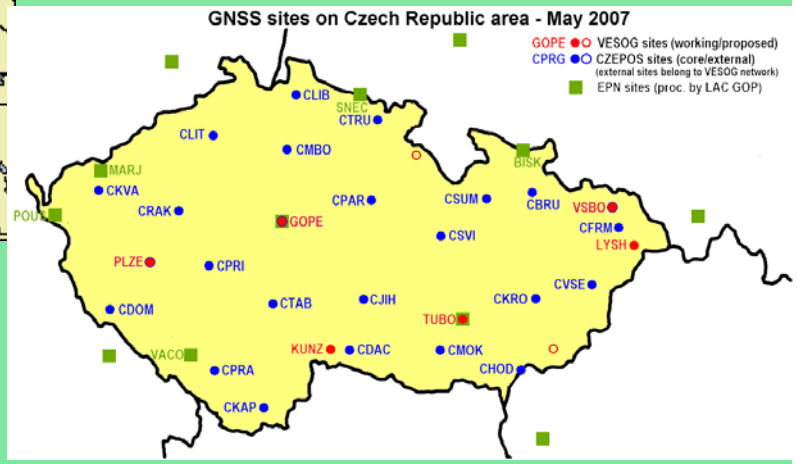




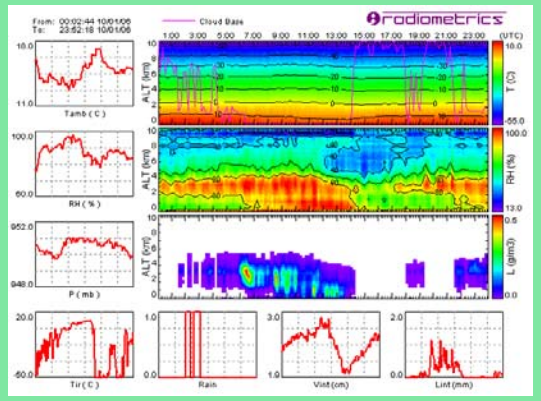
Activities of EUREF Local Analysis Center GOP



Czech stations processed at GOP-LAC



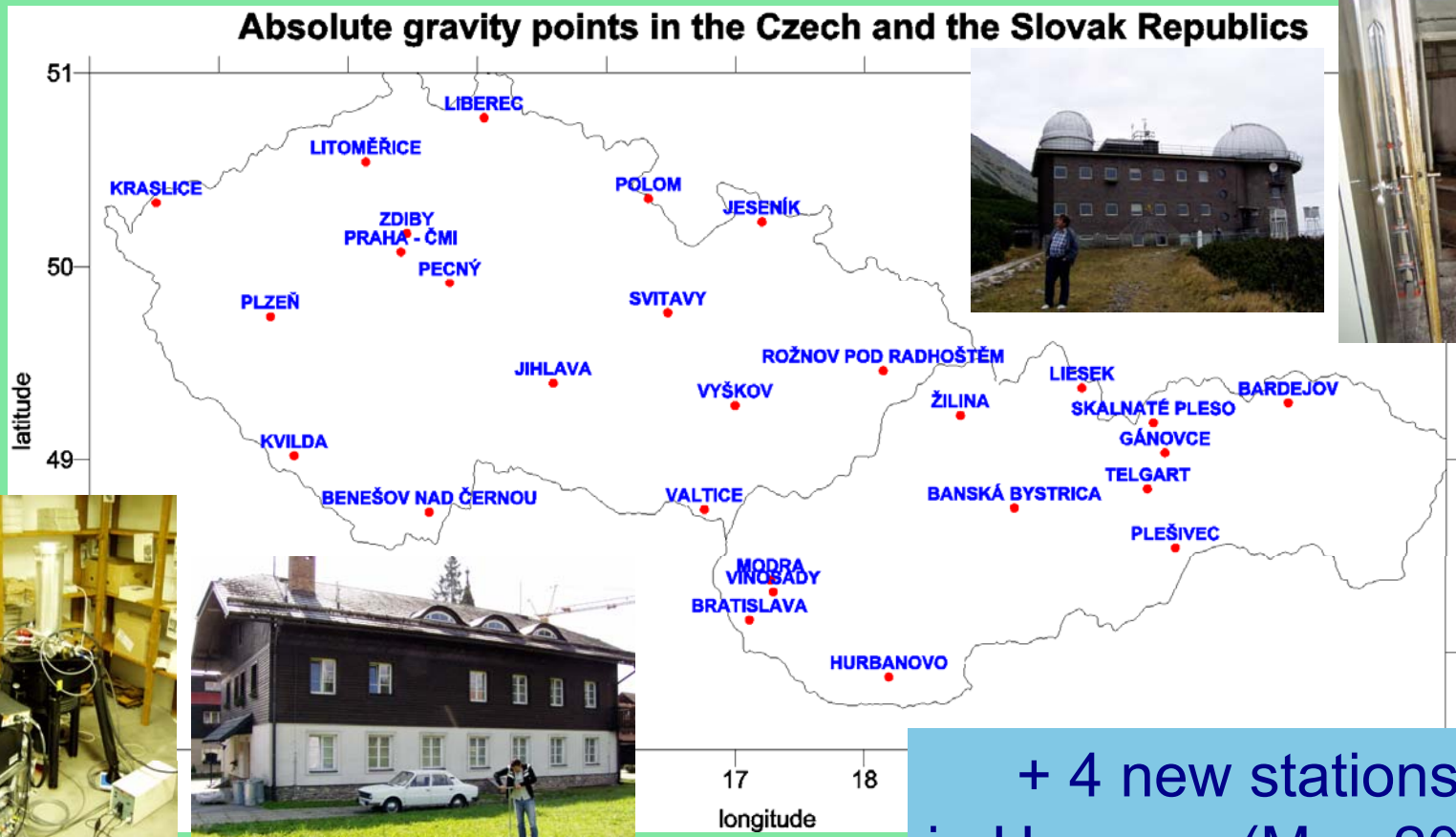
New instruments at GOPE

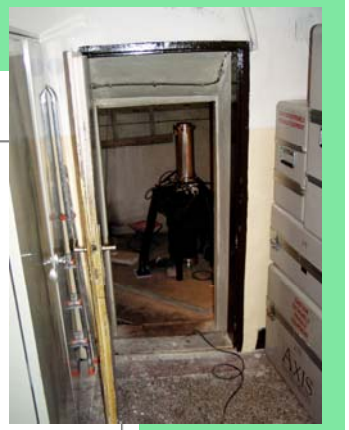


Water vapour radiometer
Superconducting gravimeter GWR

Absolute Gravimetry in 2006 - 2007 with FG5 No. 215 (RIGTC)

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



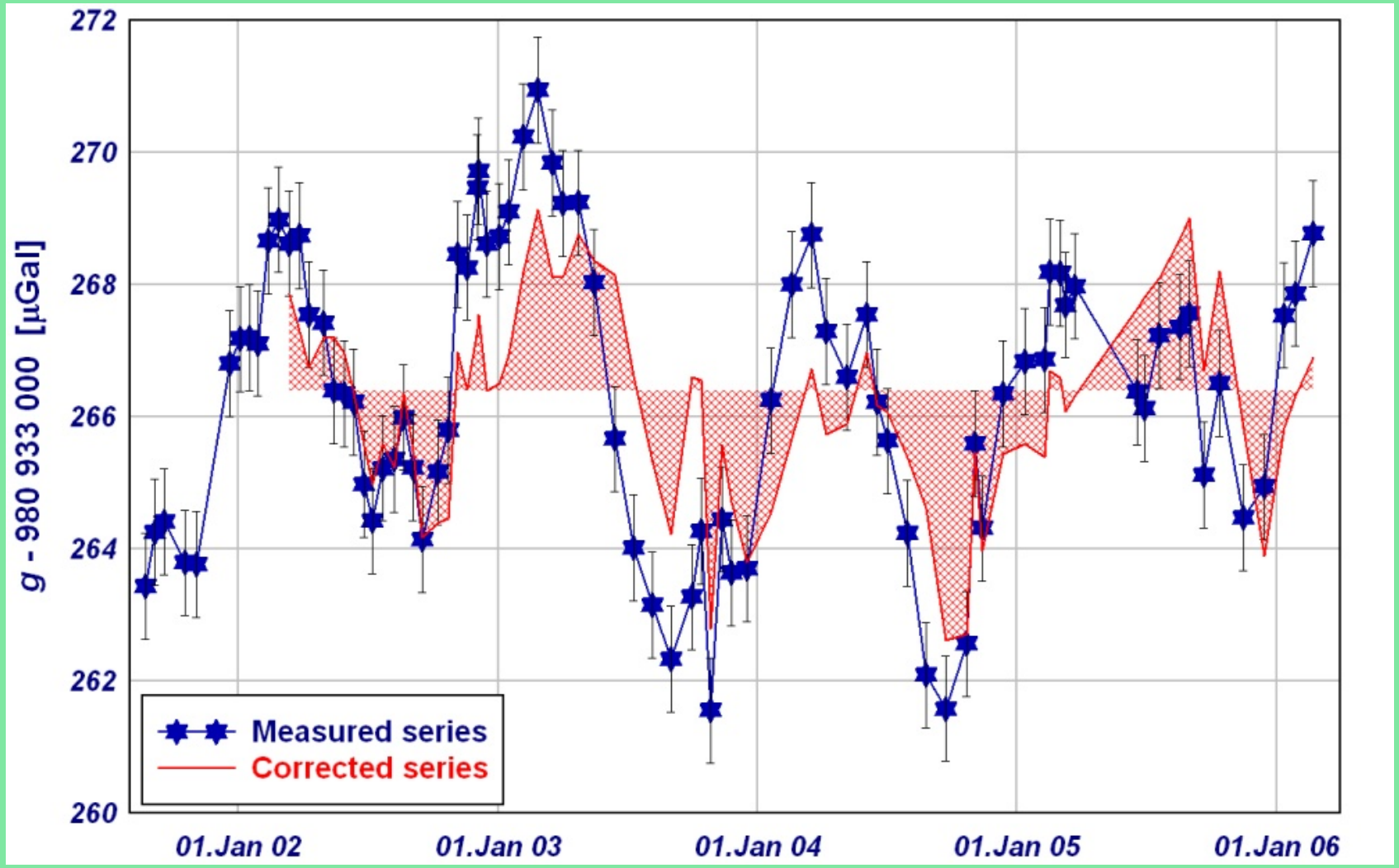


+ 4 new stations
in Hungary (May 2007)

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 is result of cooperation

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- **IRSM**: V. Schenk, Z. Schenková, F. Mantlík, M. Grácová