National Report of Bosnia and Herzegovina

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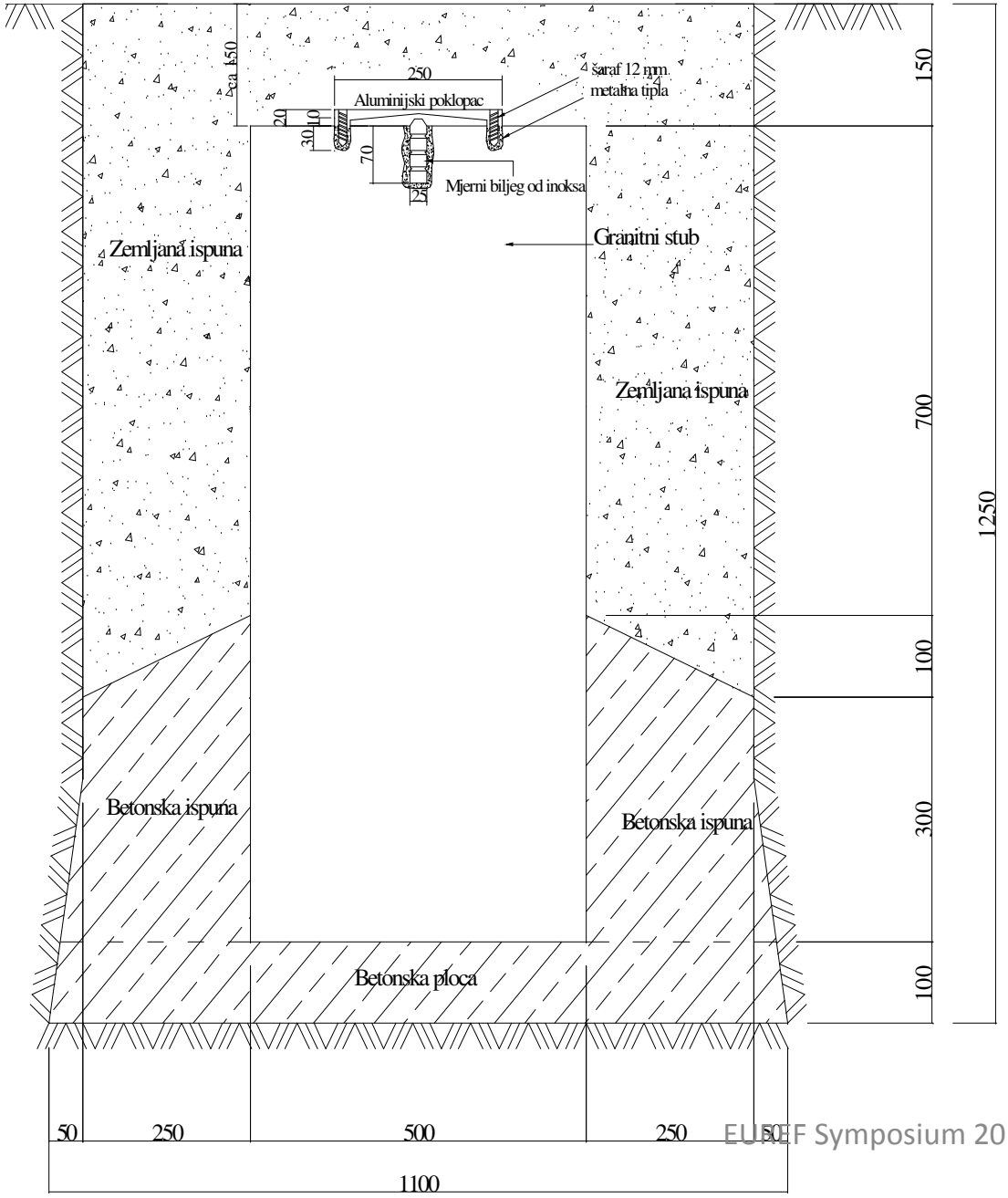
Outline

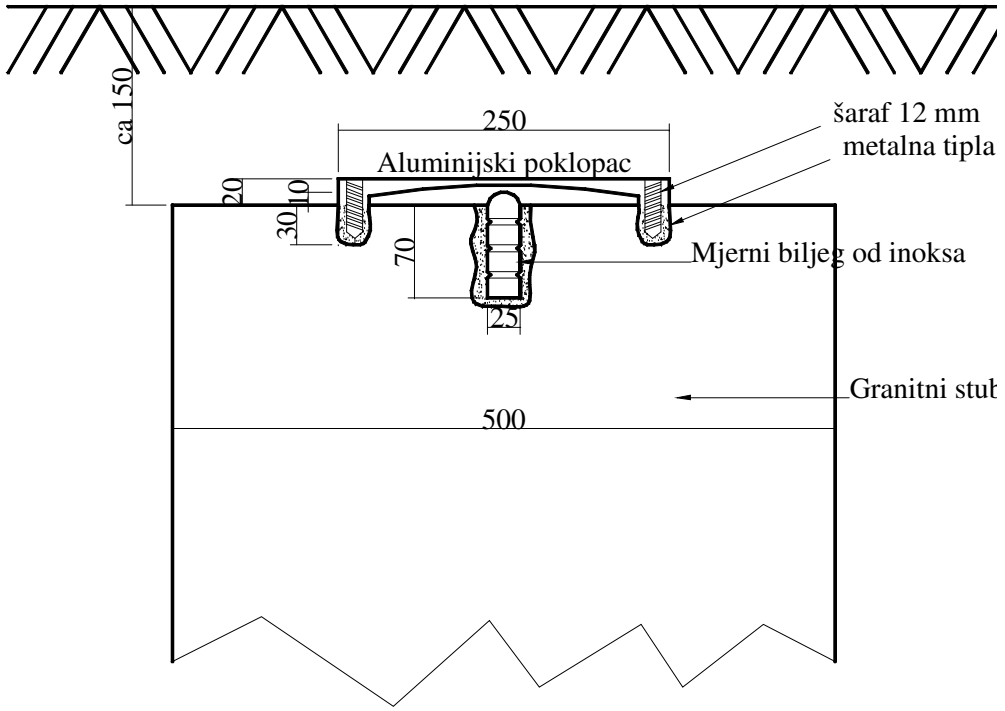
- 2008: Plans for
  - New leveling network-NVT III
  - New spatial reference network of B&H
- 2011: Achievements
  - CORS in B&H: BIHPOS
  - Reprocessing of the GPS campaigns:
    - BIHREF2000 densification and CEGRN05 in B&H

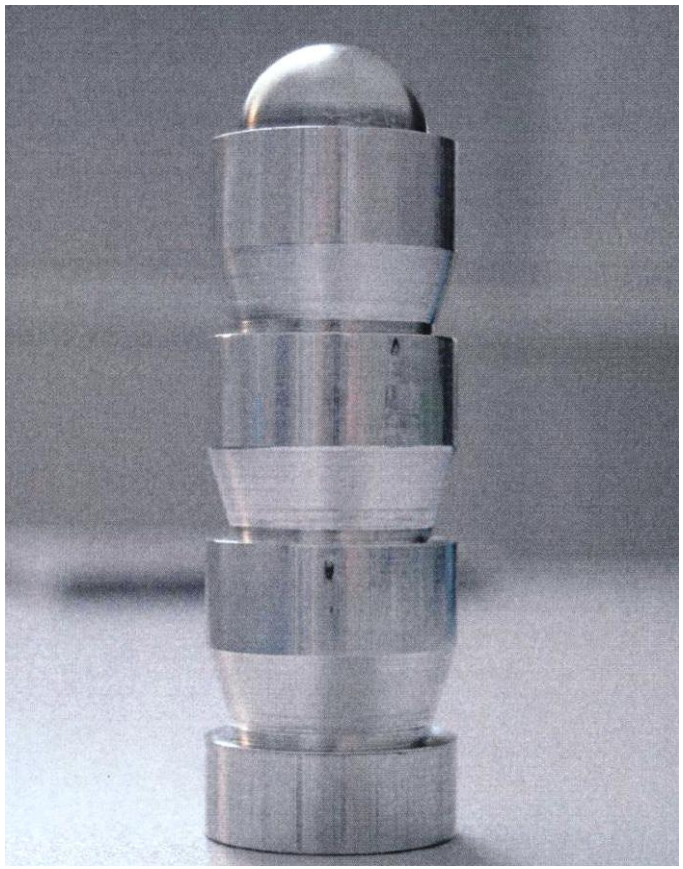
Spatial Reference Network

- GFS (Geodetic Fundamental Station) for simultaneous:
  - Leveling, GNSS and Gravimetric measurements
  - ~50 GFS on distance of 30 km
  - 3D Coordinates
    - ETRS89/ETRF2000
  - Physical Heights
    - leveling +gravimetric data
  - Gravitation defined in B&H system:
    - absolute + relative gravimeter

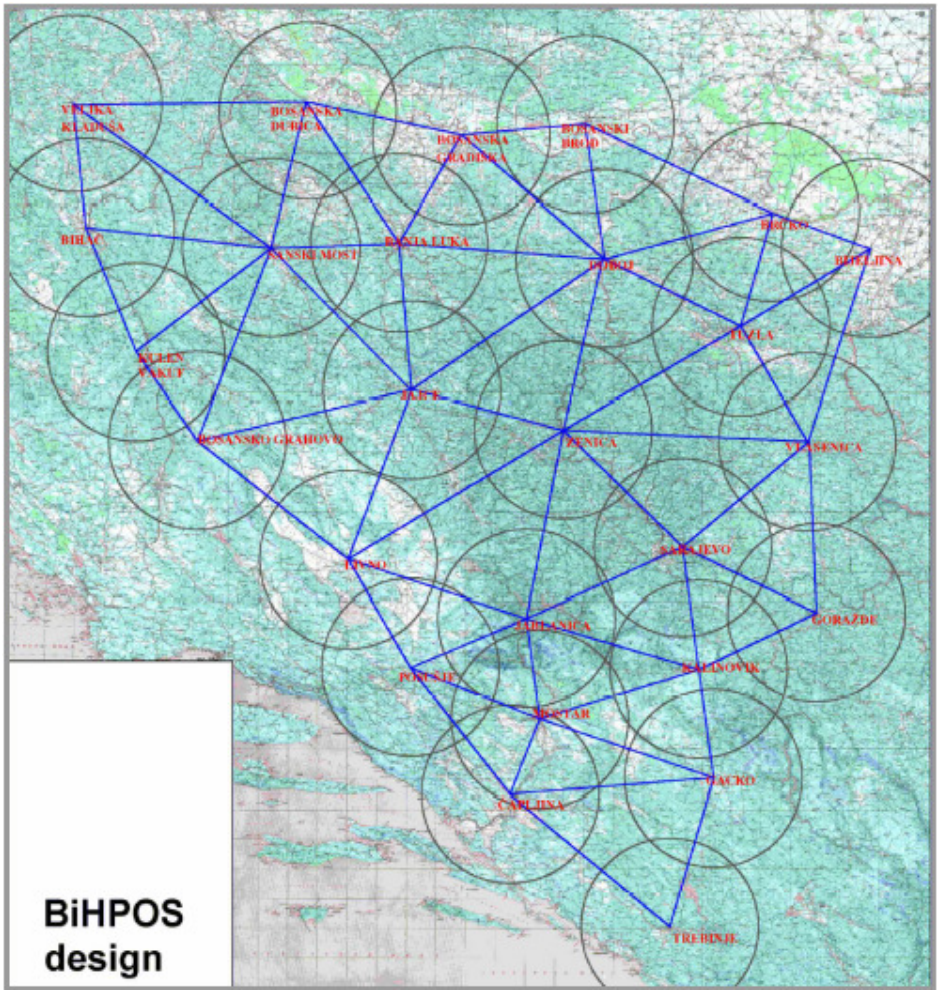
Geodetic Fundamental Station marker







BIHPOS
BiH Positioning Service



Year 2006 designed

- as one sistem
- Data center in Sarajevo
- Backup DC in Banja Luka
- r= 30 km
- 20 (22) stations

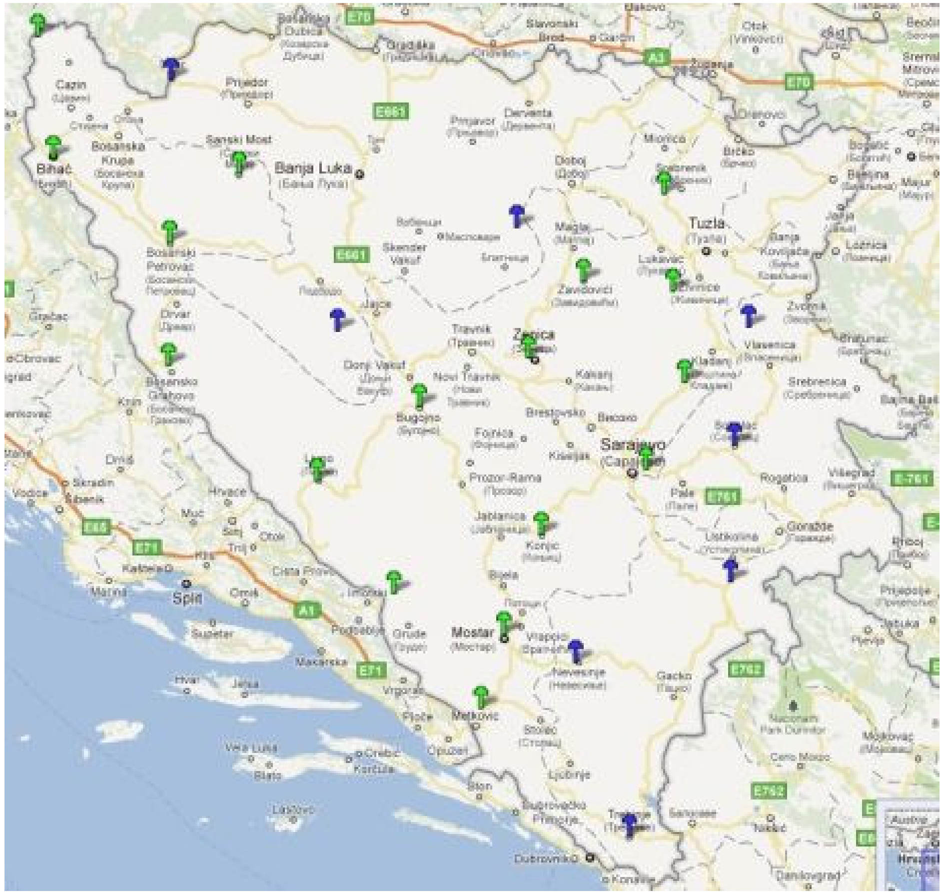
Realisation?

-Full operatibility in Sept. 2011

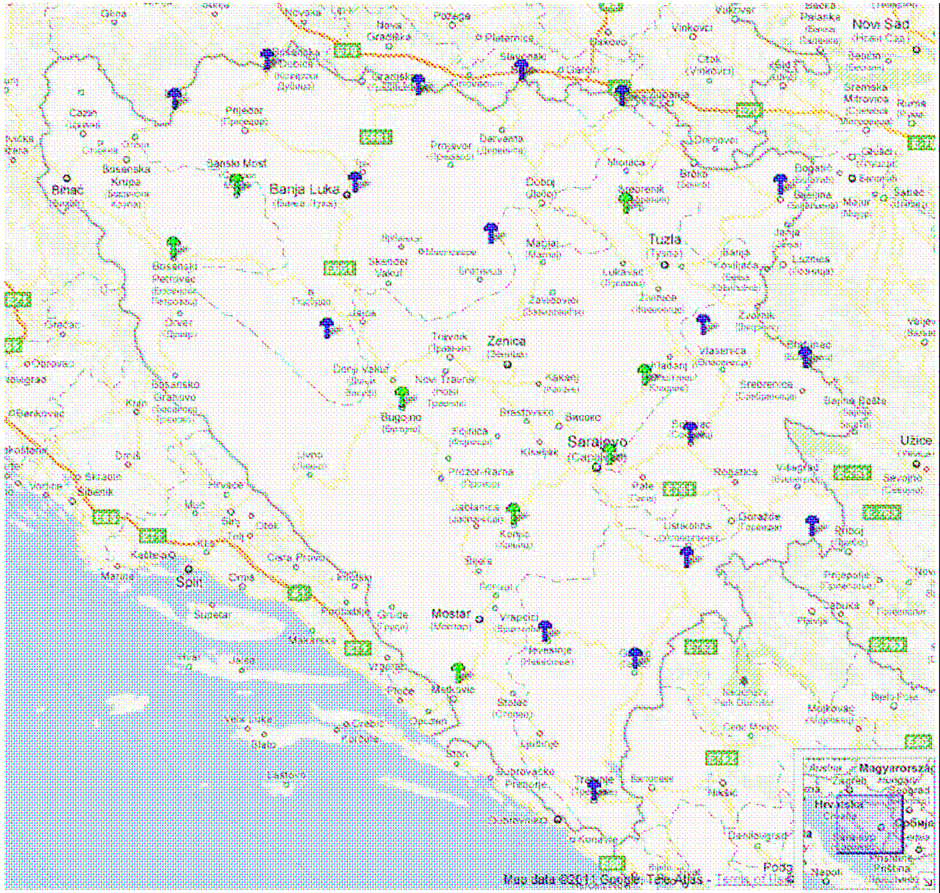
-Leica Recievers +Spider softvare

BIHPOS

FBiHPOS



SRPOS



BIHPOS SERVICES

DSP	VPSP	GPSP
1-3 m	1-2 cm	1 cm

http://www.fgu.com.ba/index.php?part=stranice

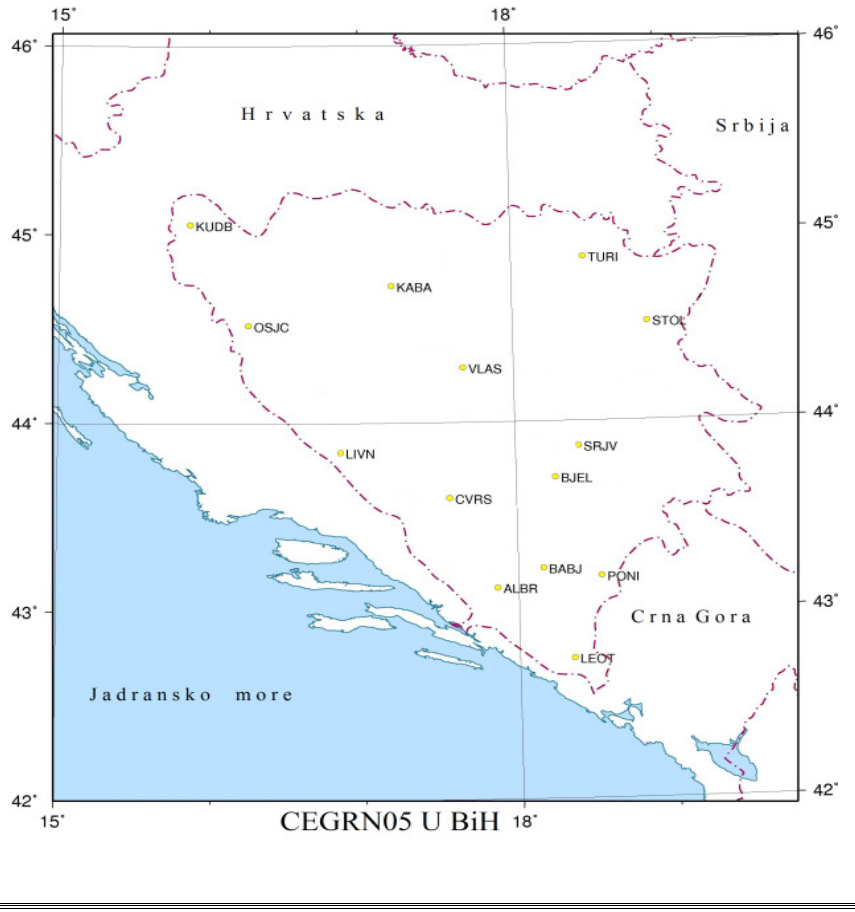
Reisa Džemaludina Čauševića 6, 71000 Sarajevo

denis.tabucic@fgu.com.ba

Re-processing of the GPS campaigns

BIHREF2000-Densification

CEGRN05 in B&H



Processing Strategy

Same for both campaigns:

- Reference Frame IGS05
- Orbits: IG1 + igs05.atx
- Datum stations: 9/8 IGS RS + 3 Control stations
- Troposphere NMFw
- MC

RESULTS

-in IGS05; Transformed to ETRS89 and ITRF2000

Generaly:

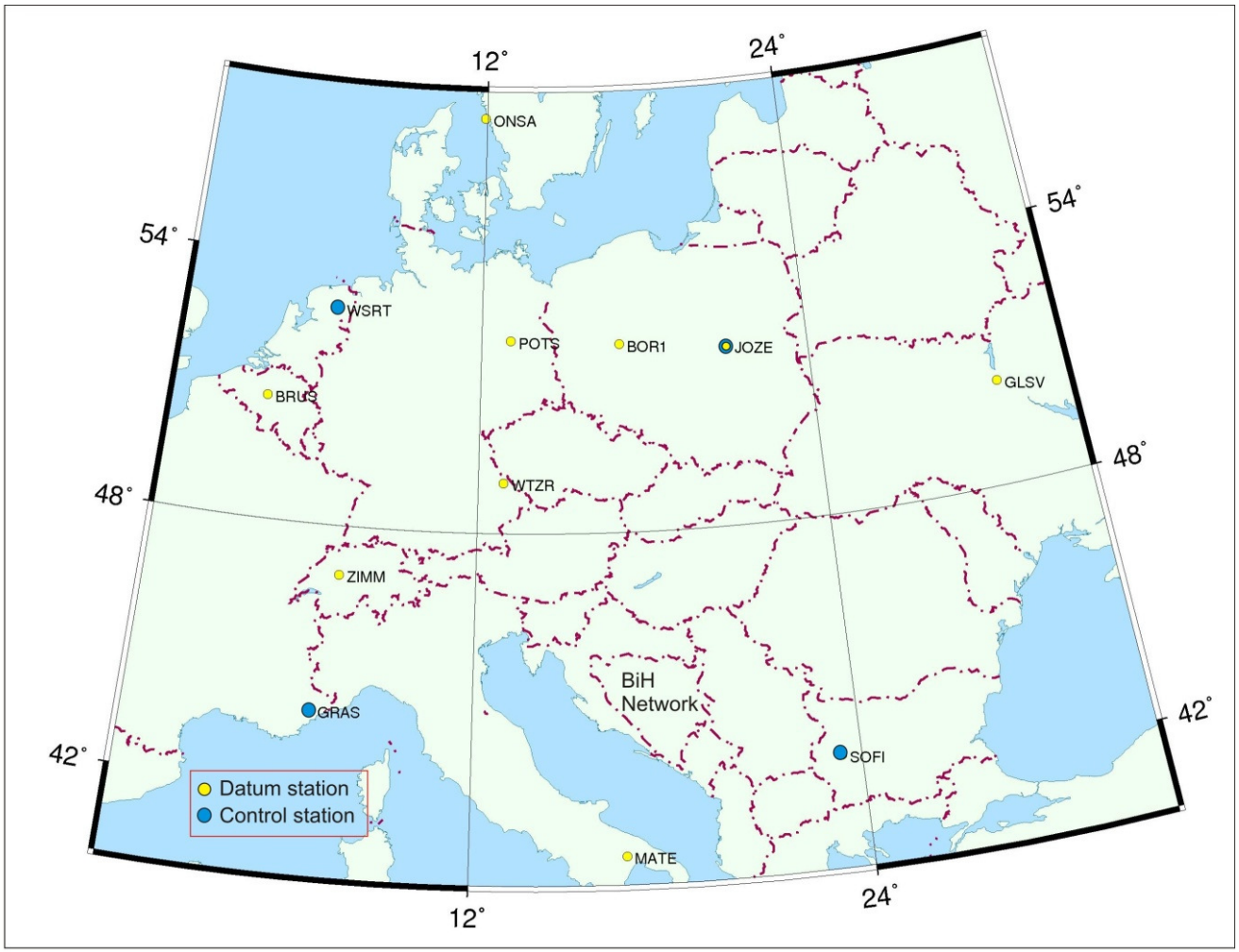
-Better accuracy for CEGRN05 than for BIHREF2000

Combinered campaigne in ep. 2003.1

Datum stations

Datum +
Control
stantions:

BOR1,
BRUS,
GLSV,
JOZE,
MATE,
ONSA,
POTS,
WTZR,
ZIMM,
GRAS,
WSRT,
SOFI.



Error elipses of the stations in B&H

8 DATUM STATIONS solution– (a priori st. dev. 0.1 mm)

Probability 95% (multiplied by factor 4)

BIHREF2000

CERGN05 in B&H

Velocities from the combined campagn IGS05 ep. 2003.100

horizontal velocities

Velocities of the height s

Thank you for your attention!

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Aknowlegments to
EUROGEOGRAPHICS!