

VRS concept using NWP and Mod_Ion_FK: Preliminary Results in Brazil

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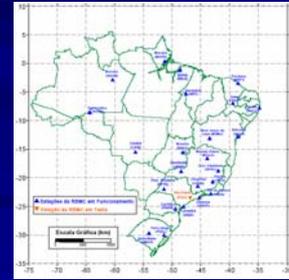
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NETWORK

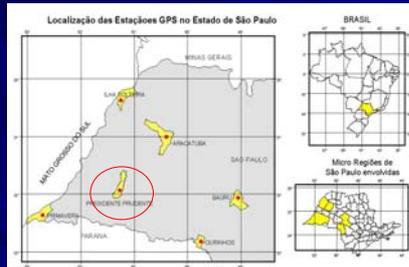
The Brazilian GPS active network (RBMC) is composed of about 24 receivers. IBGE (OS of Brazil) is responsible for this active network.

The average distance among stations is of about 400 km (it will be improved - modernization plan).



NETWORK

São Paulo State Active Network / FCT-UNESP (current status) - densification of the Brazilian frame



4 Trimble NetRS
 GPSNet software

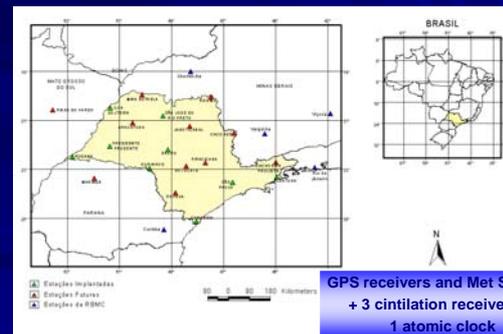
2 Leica GRX1200 Pro
 Spider software

TCP/IP

Site: <http://gege.prudente.unesp.br/index.php?p=29>

NETWORK

São Paulo State Active Network / FCT-UNESP (future)



GPS receivers and Met Stations
 + 3 cintilation receivers +
 1 atomic clock

SERVICES

✓ The raw data by internet

✓ Continuous estimation of coordinates

✓ Zenithal tropospheric delay for Meteorology

✓ DGPS

✓ Network DGPS

- ✓ Provided results better than 50 cm
- ✓ MSc Thesis to implant this service

✓ Network RTK

- ✓ Using the VRS concept
- ✓ ZTD prediction for South American region using NWP
- ✓ Mod_Ion_FK to the ionosphere
- ✓ PhD Thesis to develop this method



SERVICES

For São Paulo State Net, FCT/UNESP and other partners will take care of the network and services (so far - free of costs) and accomplish related researches

All equipments have been obtained within scientific projects

IBGE, via PIGN (UNB and GSD of NRCan) has been working in the direction of providing the GPS-C and PPP on-line, besides providing data to the public and other services

CONCLUSION:

The services provided by the network are very important for Brazil. They will support several applications, in special those activities related to the Georeferenced Surveying of rural properties (Law 10267/2001)

