



Automated Monitoring of CORStnet-NSW using the Bernese Software

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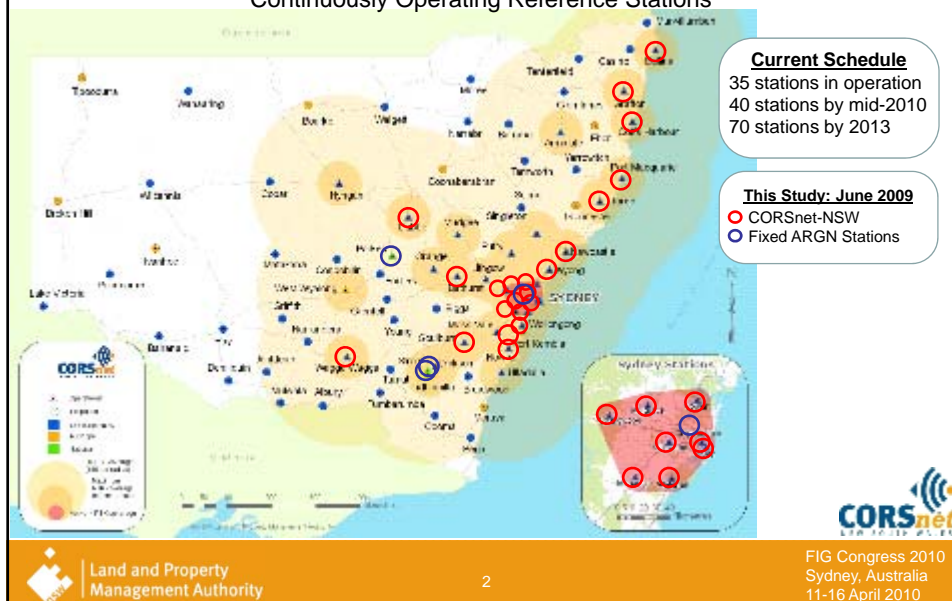
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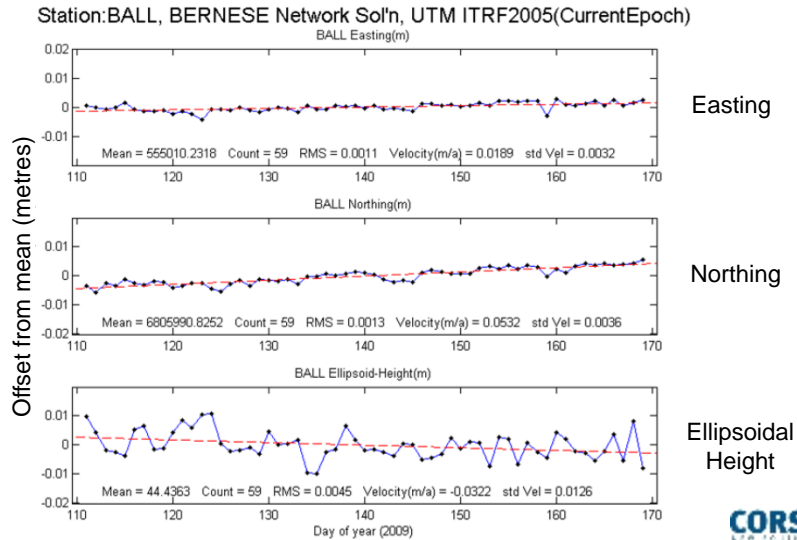
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FIG Congress 2010
Sydney, Australia
11-16 April 2010

CORStnet-NSW Continuously Operating Reference Stations



Station Coordinates and Velocities



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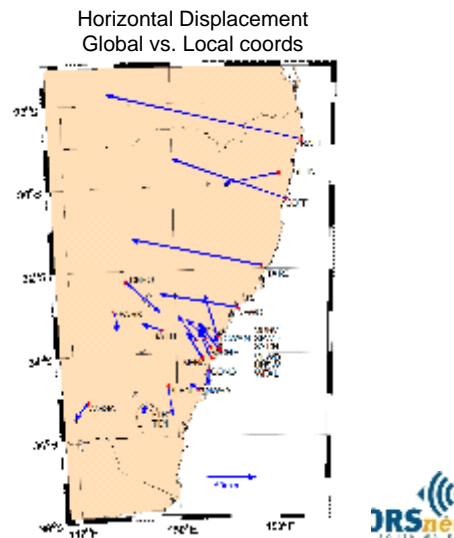
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'Global' vs. 'Local' Coordinates

CORSnet-NSW coordinates are determined in the global ITRF05 datum, then fixed to first-order geodetic network

Distortions exist between 'local' and 'global' realisations of the national datums:

GDA94 (Hz) up to 200m
AHD71 (Vt) up to 300m



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Conclusions

- Bernese is a suitable software platform.
- mm-level automated monitoring is possible:

Precision obtained from 60 days data	Horizontal	Vertical
Coordinate Precision	1-2 mm	2-5 mm
Velocity Precision	2-4 mm/yr	7-15 mm/yr

- Longer time series yield increased precision.
- Distortions between local and global coordinates present a significant issue for users.
- Highlights need for a new National Datum (3D).



Questions...?

