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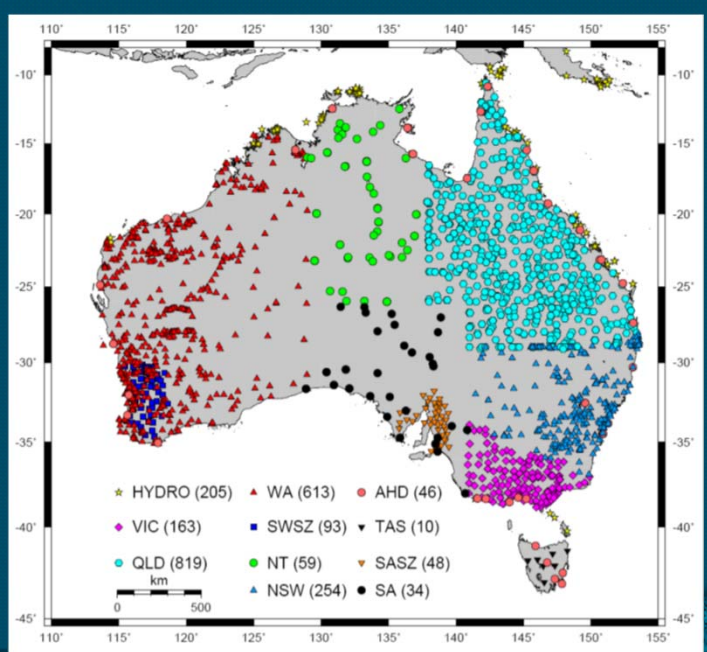
## Precision Analysis of GPS for Datum Modernisation in Australia

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Geoscience Australia



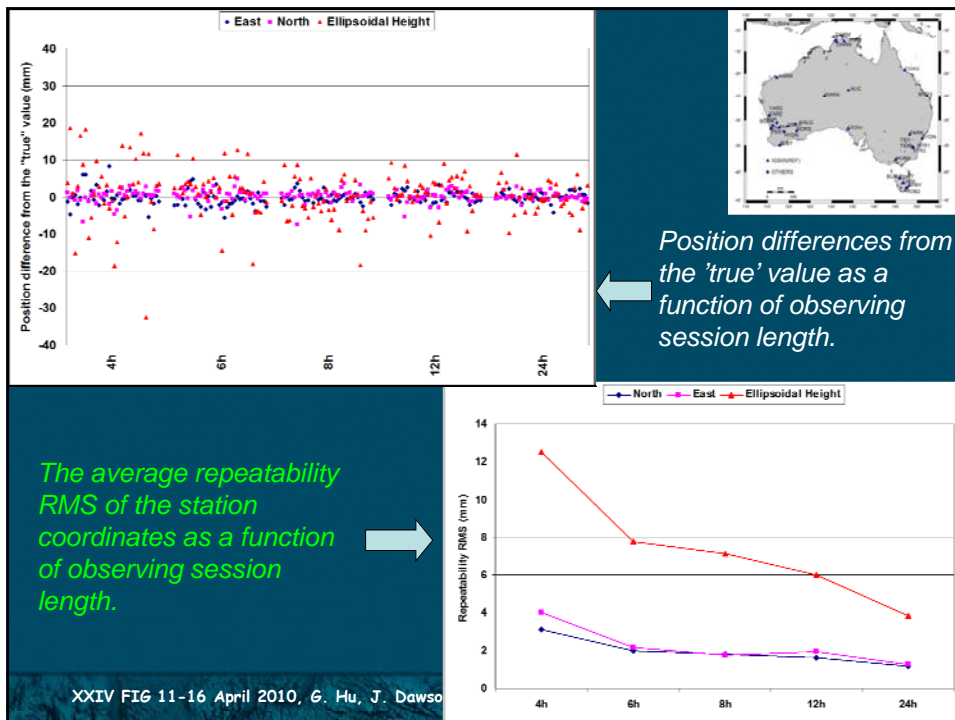
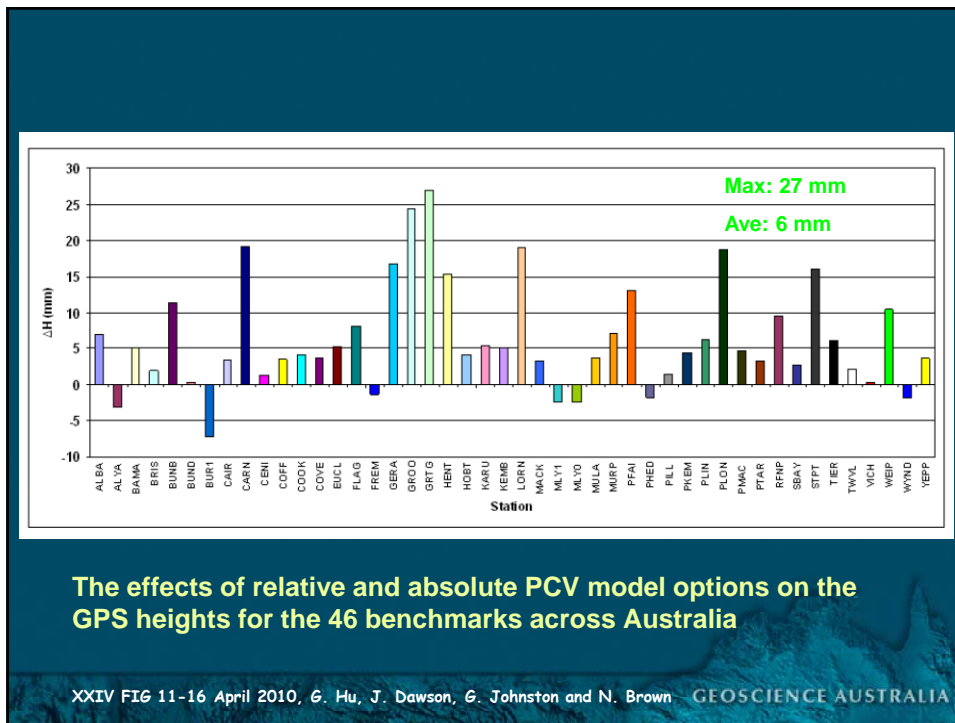
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### Objectives

- To meet the requirement of understanding the relationships between the ITRF and the national horizontal and vertical datums in Australia
- To support the development of improved geodetic infrastructure in Australia

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**Statistics of the estimated formal standard deviations of the 1968 sites (unit: mm).**

	Max	Min	Mean	STD
Ellipsoidal Height	14.2	0.1	2.3	1.8
North	9.3	0.0	0.6	0.7
East	8.1	0.1	1.0	1.0

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## Conclusions

1. In order to achieve the highest possible accuracy positions, particularly for the height component in the recent realization of ITRF2005, IGS absolute PCV models have to be used in data processing;
2. At least 6-hr duration occupations are needed to ensure to obtain reliable results especially for the GPS derived heights;
3. There will be two applications for this new GPS solution:
  - a) an important input into the Australian Height Modernisation Project.
  - b) as constraining dataset for the new national datum in the future.

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*Thank you*

*To all station operators and  
their agencies*

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