Geophysical Research Abstracts Vol. 17, EGU2015-7343, 2015 EGU General Assembly 2015 © Author(s) 2015. CC Attribution 3.0 License.



Comparison of AuScope VLBI and GPS geodetic data

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The AuScope geodetic Very Long Baseline Interferometry (VLBI) array consists of three telescopes on Australian territory, each of them co-located with Global Navigation Satellite Systems (GNSS) tracking stations.

The high cadence VLBI observing program gives baselines and station coordinates of good quality, with baseline length repeatabilities (WRMS) of a few millimetres for the Australian baselines.

In this contribution we present the latest VLBI results of regional and global experiments and compare them to baselines and site coordinates derived from GNSS data. For a thorough comparison, we use similar models for both, the VLBI and the GNSS data processing. Investigations of common tropospheric parameters and clock terms, as well as validations against the local ties as determined in the 2014 local surveys will supplement this study.

Additional insight into the topic of technique specific errors is expected from the analysis of dedicated experiments with the two co-located telescopes at Hobart, the 26m legacy antenna and the new 12m dish.