



Australian - New Zealand geodetic VLBI network project

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Geodetic VLBI technique maintains the International Celestial Reference Frame (ICRF) and contributes significantly to the International Terrestrial Reference Frame (ITRF) realization, Earth Orientation Parameter (EOP) service, etc. However, only Hobart (Tasmania) radio telescope is involved into geodetic VLBI observational program on regular basis in Australasia. Due to paucity of appropriate radio telescopes the ICRF and ITRF realizations have worse accuracy in the Southern Hemisphere. The project of geodetic Australian VLBI network has been developed as a part of the national geodetic network strategy.

New VLBI network will consist of three Australian and two New Zealand comparatively small (about 12 meter in diameter) fast slew rate dishes equipped with Mark5B recorders.

All VLBI sites will be collocated with permanent GPS receivers, and some of them - with SLR facilities to enforce this network strength and verify the inter-technique performance.

This network will work

- to improve the ITRF in Australia-South Pacific region;
- to improve the ICRF in the Southern Hemisphere;
- to contribute to geophysical researches (sea level change, Earth rotation irregularities);
- to monitor crustal deformation of the Australian continent as well as the New Zealand subduction zone.