

Nanshan VLBI Station Report

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Abstract

Here is a brief summary of VLBI experiments, system status, equipment updates of Nanshan VLBI station in 2002.

1. VLBI Experiment

The station has participated several vlbi networks in various vlbi experiments in 2002. The telescope participated 5 experiments with each 24 hours for IVS and APSG projects, participated 33 experiments for European VLBI Network. It also participated 5 test vlbi experiments for Shanghai correlator, 4 for Russia low frequency vlbi Network, and 1 for China-Italy vlbi project.

2. System Status

More properties are not changed notably since last report except sensitivity because of receiver update.

Table 1. Recent sensitivities

Frequency band	SEFD in Jy
22GHz	2950 left pol.
8.4GHz	450 right pol.
5GHz	365 left pol.
2.3GHz	880 right pol.
1.6GHz	240 dual pol.
327MHz	3020 line pol.

3. Activities

New dual polarization receivers at L-band were installed in July 2002, the system temperature goes down to 20K. This system will mainly work for pulsar timing and also vlbi experiment. Some problems in C-band and K-band receiver have been fixed. One of two H-masers was repaired in Shanghai because it sometimes was unlock, now it works as used. The Field System in computer was updated to FS9.5.17 according to Ed Himwich's release, so we can do continuous system temperature measurement.

4. Position Change

Since 2002, under new contract with National Astronomical Observatory, Director Zhang Jin is the chief scientist, Zhang Hongbo is the general engineer and Liu Xiang is the VLBI friend of the Nanshan VLBI station. The Urumqi Observatory is directly affiliated with the National

Astronomical Observatory of China since 1999. It consists of the 25 meter radio telescope, a GPS station and an optical telescope at Nanshan.