

**REPORT TO EVN CONSORTIUM
Bonn, 2012-05-10**

1. Radio telescopes

a. Nanshan 25m

Nanshan 25m telescope is currently fully functional but has reached its designed lifetime limit. A thorough upgrading programme will take place in 2013 and its observational schedule will be seriously affected then. The optical geometry will be modified to match the active subreflector and the supporting frame will be restructured with steel-pipe elements. The aimed surface accuracy is 0.15mm which will make future 3mm observation possible.

b. QTT 110m

Urumqi has now initialized a programme to build an 110m-diameter fully steerable Gregorian radio telescope on a site close to Qitai town which is about 200km east to Urumqi city. The telescope is currently named as Qitai Telescope (QTT). All the conventional radio bands L/C/S/X/K will be implemented to join the Chinese VLBI Network (CVN) and European VLBI Network in the future.

2. Receivers

The 1.3cm receiver has been successfully mounted on the 25m telescope and now it is ready to join the K-band VLBI observations. Its fringe tests had succeeded in this March's EVN K-band observations in Session-I 2012.

3. Backends

Some of analogue BBCs were found faulty in EVN observations. Since we have no backups, we plan to migrate to digital backends in the very near future. The Chinese Data Acquisition System (CDAS) has already been implemented for Chang'e project but it has not yet been used in astronomical observations.

4. Recording system

Data recording system at Urumqi is now Mk5b with 3 * 8TB disk banks. Urumqi may do more contribution in data recording disk circulation.

5. e-VLBI

The internet bandwidth is now limited to 155Mbps by the regional backbone network allocation of Chinese Academy of Science. Gigabit bandwidth could be achieved by line rental from telecommunication companies. Last rented bandwidth reached was 622Mbps.

6. Personnel change

The VLBI friend at XAO now is Dr. Ming Zhang who is responsible to external coordinations.

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