

The next generation of geodetic VLBI observation at GSI

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<http://vlbldb.gsi.go.jp/sokuchi/vlbi/>

The Geographical Survey Institute (GSI) regularly carries out geodetic VLBI experiments (Japanese Dynamic Earth observation by VLBI:JADE) with its own 4 domestic VLBI network stations (GSI Advanced Radiotelescope Network:GARNET). GSI also carries out the JADE sessions in collaboration with NAO at Mizusawa, Gifu University at Gifu, Hokkaido university at Tomakomai, CRL at Kashima and Koganei, Jaxa at Usuda, and Yamaguchi university at Yamaguchi.

Previously, we used magnetic tape based recording systems (K-4) for VLBI experiments and needed to correlate the data with a proprietary correlating device, the KSP correlator, installed at

Kashima CRL or Tsukuba GSI. In March 2004, GSI have installed hard disk based recording systems (K-5) at each station. These next generation VLBI systems will not only make more efficient data recordings, but also enable software correlations using PCs. Additionally, the processing capabilities can be improved dramatically by introducing such technology, like distributed processing. It enables the earlier provision of VLBI results. On this account, VLBI is highly promising to be applied to various fields.

We report our current status, schedule and challenge for next generation VLBI system at GSI.