EVN Performance and Reliability

Iván Agudo

Collection of Highlights

A large improvement of the EVN in terms of new stations & sensitivity!

Sardinia Radio Telescope (SRT)

First fringes at 22 GHz on 27/01/2014

SRT – Medicina

SRT participated as an EVN station on EVN session 1-2014

Test at 18, 5, and 1.3 cm.

Fringes were found at 18 and 1.3cm.

Congratulations!

A large improvement of the EVN in terms of new stations & sensitivity!

The 65m new radio telescope in Shanghai, Tian Ma 65:

Participated on all EVN session 1-2014 tests at 18, 6 and 5cm.

Fringes found all these bands both

Tian Ma 65 is now offered as an EVN Station (see EVN Status Table).

Congratulations!

Collection of Highlights

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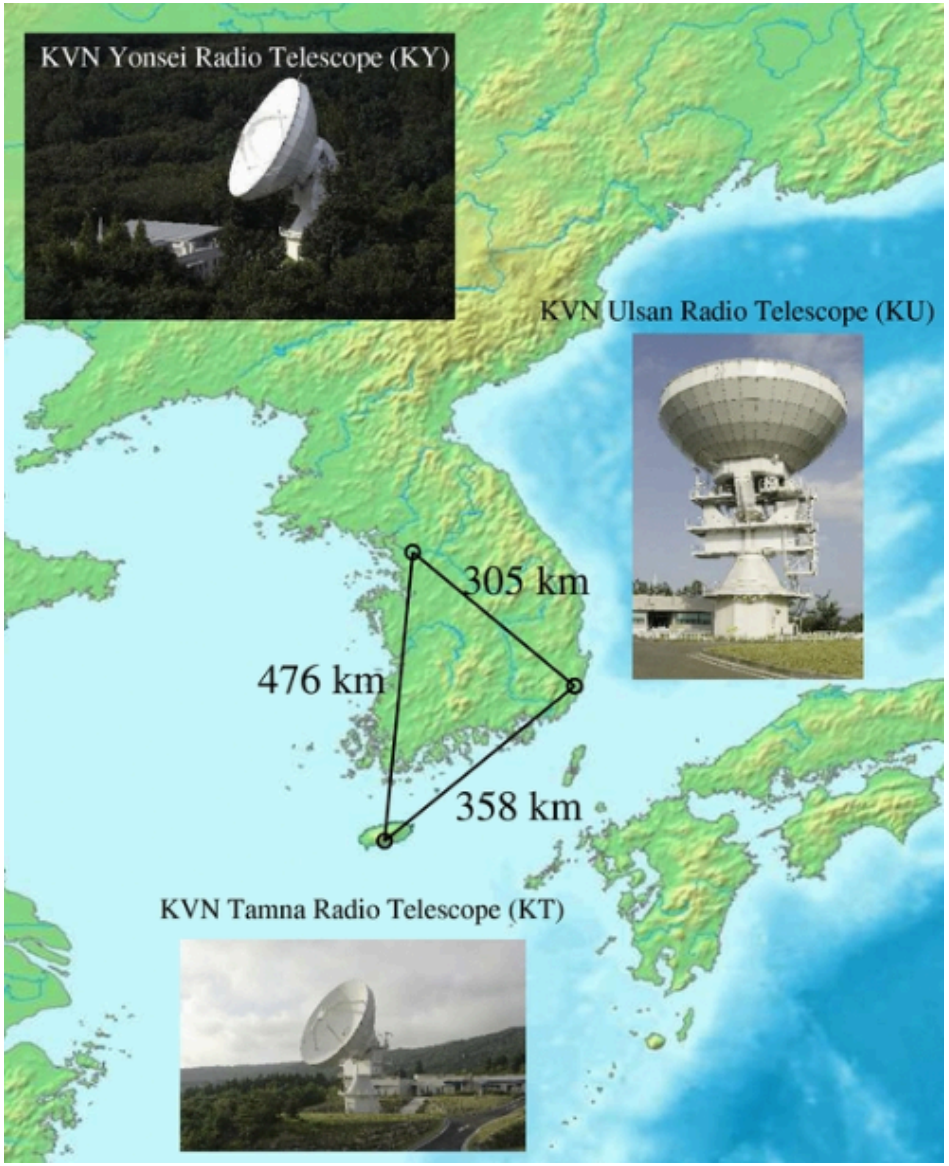
ALL three stations of the Korean VLBI Network

Joined the EVN array as regular EVN stations

They participate in all tests at K & Q bands

Started to participate in user experiments from 2014-2 session.

KVN now offered as EVN Stations.



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15m station has been made recently available at Hartebeesthoek (SA).

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This stations is currently limited to observations at 13 and 3.6cm

For limited periods of time

Ht now offered as an EVN Station.

Collection of Highlights

Backends

- Ef, On, Ys, Nt, Tr, and Hh using DBBCs, standard in 2014-3 session. Mc still needs tests

- Ro now uses new DVP (NASA/JPL developed digital) backend (EVN compatible ANTABFS tables produced routinely)

Other highlights

- Data from two EVN and one Global programs involving space VLBI with Radioastron correlated at Astro Space Centre correlator, Moscow (session 3/2013)

- First e-VLBI user program at K-band successful involving Eb, Jb2, On20, Mc, Nt, Tr, Sh, Ys, and Mh)

NME Results & Feedback from user experiments: Session 2014-2 (an advance)

P band:

Jb: Strong crosstalk between polarisations on N14P1

M-band:

On: A fuse for declination motor broke repeatedly. 3 user programs lost at M-band

K band:

- Jb: No fringes. Receiver failure

- Kt: No data received. 8-pack has no data on it for user experiments as well

Q band:

- Nt: Wrong frequency set. No fringes

NME Results & Feedback from user experiments: Session 2014-1

L band:

- Sv: Data from F14L1, EM111 were accidentally deleted by the operator

C band:

- Tr: No fringes in much of the session (mis-set of the first LO by 100 MHz)

K band:

- Nt: no useful RCP data
- Sv: no fringe solutions in RCP
- Bd: no data received at JIVE. A disk-pack got lost in shipping
- Mh: no good data. Station reports a problem with calibration of DBBC

General issues:

- Jb: No feedback provided for the entire session
- Tr: No fringes on BBC7, which was unlocked, for apparently the entire session.

NME Results & Feedback from user experiments: Session 2013-3

L band:

- Jb: No fringes with Jb for all L-band observations. Reason unknown

K band:

- Mh: LCP channel broken, but no fringes either in RCP for the entire session
- Nt: only had LCP data available

General:

- Tr: BBC07 unlocked. Two RCP subbands 7 and 8 lost because of that. Antenna control failure during 3 user experiments. Recorder did not work for one more of them
- On: Did not observe for ~8-9 experiments because of high wind
- Ur and Sh lost ~3 user programs because of participation in China Chang E obs

Other notes

Notes on Sampler Statistics:

- Has been monitored by the ftp fringe tests since session 1/2010.

- Van Vleck correction is done by JIVE software correlator SFXC.

- Channels with poor sampler statistics were less (almost not) seen specially because the predominant use of digital backends.

REMINDER on pre-session checks:

- Make in contact with JIVE support scientist by Skype before start of session (for feedback and to solve potential problems on the fly)

- Contact info usually included on FTP-FT schedules

NOTE for K & Q band observations:

- Please, include basic-general weather information (i.e. clouds/rain/wind) on feedback page. It helps to understand problems during data reduction