

Torun (Tr) Station Report

(Jun 19th, 2019)

Recent EVN Sessions

Three EVN sessions have been carried out since the previous report (Sep 28th, 2018).

Oct/Nov 2018 session.

Tr was scheduled in 27 regular disk projects. Observations were carried out at L, C, and K bands. No major problems were noticed with the exception of late start (2 hours) of EP111B due to control system failure.

Feb/Mar 2019 session.

Tr was scheduled in 25 regular disk projects. Observations were carried out at L, C, C-methanol and K bands. No major problems were noticed.

May/Jun 2019 session.

Tr was scheduled in 35 regular disk projects. Observations were carried out at L, C, C-methanol and K bands. N19K2 was cancelled due to receiver failure.

Two e-EVN experiments on Nov 20/21 and Dec 4/5 could not be carried out due to internet connection upgrade. Outside the regular EVN sessions, Tr successfully participated in 3 Global RadioAstron (RA), 4 out of session, and 7 e-EVN experiments. Tr was requested in 81 short-duration (about one hour each) RA experiments.

Current Developments

Starting with the Feb/Mar 2019 session, all receivers are equipped with 80 Hz continuous calibration.

Tr acquired and installed a FiLa10G device and additional 2 CORE2 boards for its DBBC2 allowing for 16 BBC operation and 2-4 Gbps transfers. Two Flexbuff units were also bought, each with 36×10TB disks that provide ~280TB formatted capacity each in RAID5 setup. One of those units has already been installed and tested at Tr, while the other one will be shipped to JIVE.

For the first time during e-EVN experiment on 16th Apr 1 Gbps data streaming was carried out in parallel with both Mark5B and FiLa10G. We also successfully tested 2 Gbps recording on our Flexbuff unit as well as 2 Gbps streaming to JIVE.

During last May/June 2019 EVN session we used FiLa10G+Flexbuff to record NME tests and the majority of experiments.

Software Changes/Upgrades

Current software versions

- Mark5A unit (RadioAstron recorder):
 - Debian “Etch” version 4.0 (32-bit) with the package mark5a_1.0.7-i386.deb
 - StreamStor driver version: 10.31 (SDK 9.2), with API version 11.25 and firmware ver. 13.05
- Mark5B unit:
 - Debian “Wheezy” version 7.11 (64-bit)
 - StreamStor driver version: 11.50 (SDK 9.4), API version 12.06, firmware version 13.05
- Field System versions:
 - 9.10.4 (Mark5A, mainly RadioAstron)
 - 9.13.1-rc1 (used for Mark5B and Flexbuff recording)
- jive5ab version: 2.9.0
- The DBBC firmware version in “tunable” mode is 1.07.

*Andrzej Marecki
Pawel Wolak*