

Torun (Tr) Station Report

(June 18th, 2012)

Brief Report of Recent EVN Session Problems

During the first two sessions, October/November 2011 and February/March 2012, one of the 8 BBCs was frequently unlocked rendering data from it useless (this was BBC6 in October/November, and BBC4, BBC7 or BBC8 in about half of experiments of the February/March session). In the May/June 2012 situation somewhat improved (all BBCs were locked but some were unstable which was evident on Tsys plots).

All the 28 experiments scheduled for Tr in the **October/November 2011 session** were observed. Five of them suffered a loss of data of 30 minutes duration or longer due to either recording problems (4 cases) or telescope control system malfunction (1 case).

There were no major problems in the **February/March 2011 session**, save the above mentioned BBC4/7/8 problem. However, due to operator's mistake, the first 2.5 hours of the EP081B experiment were recorded with wrong setup.

In the **May/June 2012** session our observations were adversely affected by a number of failures of the telescope control system (communication with azimuth position encoder). They caused loss of three entire experiments and fractions (minutes to more than one hour) of a few others. We also have lost the entire ToO part of EP083. It happened so because the last minute update of schedule files included only .vex file, and not .skd one which was present in the original schedule. Drudg by default chooses the .skd extension and so has processed the old version. It seems that freely interchanging schedule file names is a potential source of mistakes and should be clarified.

Post-session calibration results (Tcal and Tsys) are presented graphically under these links:

<http://www.astro.uni.torun.pl/~kb/Reports/Cal2011-3/Sesja11-3.html>

<http://www.astro.uni.torun.pl/~kb/Reports/Cal2012-1/Sesja12-1.html>

<http://www.astro.uni.torun.pl/~kb/Reports/Cal2012-2/Sesja12-2.html>

Personnel Changes

Our new director (head of the department of Radio Astronomy) is dr Krzysztof Katarzynski, who replaced prof. Marian Szymczak on this position as of 1 January 2012.

Changes/Upgrades Made to Hardware/Software

On November 23, 2011 the Mark5A firmware was upgraded from version 12.06 (2008-12-09) to 12.13 (2011-04-13). This has fixed our long-lasting problem of automatic ftp-file extraction (for near real-time fringe tests).

Current software versions are as follows:

- Mark5A OS is Debian "Etch" version 4.0 with the package mark5a_1.0.2-i386.deb

- Mark5A application code is Mark5A2007y.225d
- The StreamStor driver version is 9.21
- FS 9.10.4 version is used since session 3/2011.

A DDBC unit has been acquired in July 2011 but cannot yet be used because, due to financial limitations, the purchase of the required Mark5B+ recorder has been postponed to the current year.

Receivers

We expect to have a new twin horn 22 GHz receiver installed on the antenna finally by the end of this year. We have already collected/built all the necessary parts and started to assemble this device. We plan to do first tests before summer holidays.

E-VLBI

Our station has participated, without any major problem, in all regular and some test experiments organized by JIVE.