

# Irbene station report

## ENV TOG Meeting 2009, 4<sup>th</sup> December, Bonn/Effelsberg

### VLBI equipment

- Mark5B
- DBBC equipped with one A/DBoard1 and one CoreBoard1. Because it seems that it is not working properly and Core 1 isn't supported now the upgrade to Core2 (1 board because of financial considerations) will be done during the next months.
- Field System ver. 9.9.2 isn't supporting DBBC and still isn't communicated to antenna control system. Efforts to install the newest version FS properly are under way but are going slowly because lack of experience with this software. Some additional assistance could be very useful.

### Receivers

- 372 MHz receiver on the moment used for solar observations.
- 6 cm narrow band non-cooled receiver (4800-5000 MHz, about 120-130 K  $T_{\text{sys}}$ ) based on parametric amplifier had been used for NME VLBI observations.
- The installation of 5 GHz ( $T_{\text{noise}} = 150\text{K}$   $\Delta f = 250$  MHz) receiver from Medicina is in under way.
- 12 GHz receiver equipped by scalar feed had been tested at laboratory and is installed for whole antenna testing.

### VLBI activity

During 2009 VIRAC participated in two EVN NME experiments, namely in N09C1 and N09C3, and short 6cm fringe test Irbene-Torun at 18.06.2009.

Taking to account lack of working Field System, configuration of DBBC and relatively big system temperature the decision was to observe only one strong source (3C454.3 and 3C84) sitting on it of all long scan. Settings of Mark5B and DBBC had been made manually. Start/stop of Mark5b had been made manually too. The scans recorded was consist of just one band at 4979.49 MHz.

The first NME test show a bad bit statistics and lack of fringes. The second NME record is not processed yet, but shows bad bit statistics too.