

Medicina station

Observatories Report

**Istituto di Radioastronomia**

EVN TOG Meeting, June 2015

Period October 2014 - June 2015

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#### 1) Antenna

After the activities stop of last year that forces us to miss the 2nd and the 3rd session of the year, Medicina returned fully operative in time for the 2015 first session. The issues we addressed during this maintenance period were:

- Substitution of the very old elevator of the antenna
- Replacement of the driving system of the secondary mirror (sub reflector)
- Substitution of the bearing system of the elevation wheel
- Refurbishment of the primary focus receiver (band S,X, L)

The antenna back structure and its basement was completely repainted (April,May 2015).

#### 2) DBBC+MK5C+FILA10G:

We carried on all the February and May sessions with DBBC and Mark5C. The few issues we reported during the first session (mainly related to the FILA10G configuration) are almost solved with newest releases of Jive5ab, FieldSystem and DBBC firmware.

- Jive5ab version 2.6.0 is currently installed on our Mark5C
- DBBC firmware version 105
- Release 9.11.8 has been installed and tested. The session of the year has been carried out with this release.

By now, the Medicina contribution to the pool is 64 packs for an amount of 296TB.

#### 3) BEAM SHAPE

Software e data acquisition system have been installed and tested at the telescope. We still have some work to overcome the troubles caused by the RFI when observing with L band receiver. The map of beam will be, in any case delivered to JIVE as soon as possible,

#### 4) CONTINUOUS CALIBRATION

The board we required to forward 80Hz signal generated by DBBC to the receiver calibration mark, through optical fiber, has been realized. The system will be installed this autumn and we plan to start preliminary tests.