

Observatories Report **Medicina Station**

EVN TOG meeting, May, 2017

September 2016 - May 2017

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1) **Antenna**

a) The replacement of the azimuth wheel track is planned within the end of 2017.

b) A preventive maintenance on the second azimuth wheel will be also done in order to avoid the problem happened on the first wheel in May 2014.

c) The painting of the primary mirror is also planned

2) **Receivers**

a) A dual-feed receiver is under construction in the 13.5-18 GHz band (2cm band).

b) The continuous calibration system has been implemented for the receivers mounted in the Cassegrain focus (6, 5, 1.3 cm). Presently the system temperature measurements of the 5GHz receiver turns out to be higher than expected. This issues must be further investigated.

The next step will be to implement the same capability for the oldest receiving systems in the primary focus (21, 18, 13, 3.6 cm).

3) **VLBI backends**

a) DBBC firmware version is currently DDC V105_1 and V105_1E, PFB v15_2.

b) The release 2.8.1 of jiveab is currently installed

c) By now, the Medicina contribution to the pool is 72 packs for an amount of 540.5 TB.

d) A Flexbuff system (equipped with 160TB) has been installed. We also paid for the twin system at the JIVE end.

e) An issue with DBBC V105E firmware often causes a zero as TPI readings.

f) An issue with PFB firmware causes the clock to drift.

g) VDIF data format has been definitively adopted.

4) **e-VLBI**

a) Medicina is routinely running e-VLBI experiments.

b) A new 10Gbit router has been installed (Juniper 10G)

5) **Field System**

a) we are currently running release 9.11.18

6) EVN Sessions: 3-2016

- a) Projects failed: 0
- b) Scans lost: 3 (3h24m)
- c) Successful projects: 28
- d) 5 out of 5 NMEs experiments produced fringes.

7) EVN Sessions: 1-2017

- a) Projects failed: 0
- b) Scans lost: 1 (1h15m)
- c) Successful projects: 20
- d) 3 out of 3 NMEs experiments produced fringes.