

INAF- Institute for Radioastronomy - Italy

Medicina Station Report Technical Working Group meeting Torun, December 13, 2023

Medicina Grueff telescope

Period

February – October 2023

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Overview:

The Medicina Grueff telescope is participating from a long time to all EVN observation sessions with a 32m parabolic antenna equipped with L,S,C,M,X,K band receivers, most of them cooled and all with dual circular polarizations.

The backend is composed by DBBC2 with four core2 and a flexbuffer with 360TB storage size. The telescope, backend and data recording are managed by NASA Field System through a observation control and scheduling system.

A three-band simultaneous receiver delivered to the Medicina station has been checked in the Medicina laboratories. It is working and we hope to install it on the antenna soon. However, working at 43 and 100GHz need the installation of the active surface. This last is foreseen to open the yard summer 2024.

VLBI backend:

Still ongoing test and implementation of DBBC3. NME of the October 2023 session was run even on new DBBC in parallel passive mode and ftp files sent to JIVE for check. We are still waiting for feedback.

By the while by the old production system is still going on without problems.

Field System:

We are running FS-10.1.0 onto the production system.

FS-10.2.0-Beta2 is installed and running on new FlexBuffer for test.

VLBI sessions:

EVN 2023-1: Some dbbc clock jumps and calibration problem due to DDC,108, November 17th 2021 firmware version. We switched back to V107. So far, no other evident problems. All NME gave good fringes.

EVN 2023-2: all went fine. So far, no other evident problems. All NME gave good fringes.

EVN 2023-3: it went fine, a part of a LO setting error in EM174B. So far, no other evident problems. All NME gave good fringes.

Giuseppe Maccaferri takes over as VLBI friend in November 2023.