

Medicina Station Report

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Abstract

In the following we will briefly summarize the relevant events, changes and upgrading at the two radio astronomy stations of Medicina during the recent past.

1. Maintenance

- a) An inchworm motor broke. It was replaced with an EVN (spare part) inchworm.
- b) A new degausser (model V91M) has been bought.
- c) The Haystack dry air kit was mounted on the tape recorder.
- d) Both the write and read heads were replaced in 1999. The new heads are triple cap made by Spin Physics.
- e) The latest version of the Field System (9.4.14) was installed.
- f) The 8-16 MHz bandpass problem was fixed with the substitution of VC components.
- g) The 0.125 MHz and 0.5 MHz filters were added to the first 8 VCs, which now have the full set of filters.

2. Telescope Upgrading

- a) Medicina will be a “thin tape only” station from September 2000 on for astronomical observations.
- b) The frequency agility project was slowed down; the main reasons for the delay are that the active surface project for the Noto antenna, which will allow the telescope to operate at 43 GHz with good sensitivity, was started, and that unexpected problems occurred with the grout supporting the azimuth rail of the antenna, which needed to be replaced.
- c) The active surface project consists of a movable system for the primary mirror panels of the antenna to recover the gravity deformations of the surface. The components that are required are in mass production right now. The design for the network of electro-mechanical actuators is ready. The control software is almost completed. For information about the installation see the Noto Station report next.
- d) The grout supporting the rail was changed. A new approach was followed: the rail is placed on a continuous bed of steel plates (50mm thick); the interface between the foundation and plates is made by a reinforced fibers grout.

3. Geodetic VLBI Observations in year 2000

Project	Date
EUROPE-53	27 January
VLBA19	31 January
EUROPE-54	07 February
VLBA20	13 March
EUROPE-55	16 March
EUROPE-56	15 May
VLBA21	22 May
VLBA23	23 October
VLBA24	04 December
EUROPE-60	06 December