

INAF- Institute for Radioastronomy - Italy

Noto Radiotelescope Report

Technical Working Group meeting
Cagliari, September 4th, 2025

Reference period June 24-August 2025

Antenna and station:

Both the radio astronomy station and the antenna have been undergoing a significant maintenance and upgrade plan in the past four years. The first part was about the refurbishment of the Vertex cabin and the infrastructure (cryogenic line, power distribution, optical cables, cooling system) of the telescope. The second and most consistent one is now ongoing and is expected to terminate in spring 2026 . The facility is now powered by a large photovoltaic system, and the electrical and air conditioning systems are currently being upgraded. Various works are underway on the dish, including:

- refurbishment of the azimuth rail and the elevation track
- primary mirror panel coating and painting
- installation of a new secondary mirror (sub reflector)
- systems upgrades
- maintenance of the active surface

The third part will be about the main servo system which will be replaced and upgraded. The exact timetable of this last intervention has not known yet.

Receivers

C-band electronic and mechanical components (including the cryogenic LNAs) have been delivered and the receiver assembly is started. This procedure is complicated

by the upgrades carried on at the station and also affecting the labs, but we hope the receiver will be ready by the end of the telescope maintenance.

The construction of the C-X-band secondary focus receiver is progressing. This receiver is expected to be delivered by the end of

2025 and it will replace the old M-band receiver.

Also a P-band receiver has been developed and already tested. It will be installed in the primary focus position and used to perform FRBs monitoring and space debris tracking.

VLBI terminal

FS Version: 10.1.0

DBBC fw version: DDC V108, PFB V16

FiLa10G fw version: 4.1

Flexbuff sw version: 2.8.1

Flexbuff1 disk space: 360 TB

FlexBuff2 disk space: 576 TB

VLBI sessions

The antenna was unavailable and could not participate in any observing sessions.