

SRT station report

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This report covers the period between June '17 and March '18

Antenna

The telescope went through a refurbishment of the primary mirror (painting) and the active surface system. The activity was completed in August 2017. From September an intense stage of system tests, calibration and commissioning of the active surface has been initiated. By now, the results from the holography and photogrammetry campaigns are encouraging but still, in order to achieve the full efficiency, more work is required.

During this maintenance we also moved our instrumentations (backends, workstations and the maser) into the new buildings and shielded room.

Receivers

The L/P-band receiver is now available: a leak in the helium lines was repaired and a malfunctioning IF filter replaced. The receiver box is being installed in the primary focus these days.

The Low Noise Amplifiers of the K-band receiver were also refurbished and installed again. The receiver is now available.

The hardware required to implement continuous calibration (80Hz) is ready. We plan to install and test the system sometime within next months.

VLBI sessions

We could anticipate our schedule and restart VLBI observations from 2018, session 1. SRT successfully took part to N18M1 and to all user experiments of the M-band block. We also plan to participate to the Network Monitoring Experiment for the K-band part.

According to our plans, SRT will join EVN for 2018 session 2.

VLBI terminal and Field System

VLBI backends (DBBC2 and MARK5C) are now installed in the shielded room. All firmware and software versions are now up-to-date.

INAF agreed to fund the upgrade to 2Gbit recording (Flexbuff and expansion of disks pool).

Fiber link

The deployment of the optical fiber cables is eventually completed. SRT is now connected to the GARR backbone at 1Gbit/sec. We plan to arrange with JIVE an e-vlbi test as soon as possible. The upgrade of the link to 10Gbit/sec is expected for the summer when the required active network devices will be available.