Westerbork VLBI station report
EVN TOG Meeting - Sardinia, 4 September, 2025

Overview:

Westerbork is contributing to VLBI projects with a single dish, equipped with a modified Multi-Frequency Front-End (MFFE) providing circular polarization and a DBBC backend. Two radio telescopes are available for VLBI operations, one equipped with the MFFE receiver, and the other with the 5cm receiver, currently sharing the DBBC/FlexBuff backend.

DBBC:

Our DBBC (used operationally since Session 2015-3), has four Core2 boards and eight BBC’s and an internal Fila10G card and its running on Windows 7 and firmware version 1.07.

The WSRT DBBC is capable of delivering 2Gbps setups to a FlexBuff (though the relatively narrow MFFE IF, limits the data rate to >~1Gbps).

FlexBuff:

The WSRT's local FlexBuff has 6 x 16TB disks and 20 x 8TB disks bringing the usable disk space to 238TB.

Fieldsystem:

Fieldsystem version FS 10.00.00.

Session Participation:

Westerbork participated in the X, C, M, and L band experiments of sessions 2024-3, 2025-1 and 2025-2.

Operational issues during recent sessions:

EVN-2024-3

During an observation, the cryogenic compressor stopped, resulting in a gradual increase in the receiver's temperature. However, thanks to the swift action of the maintenance engineers, the compressor was restarted, allowing the receiver’s temperature to quickly return to nominal levels. So there was no impact on the observations.

EVN-2025-1

No operational problems were encountered during this session.

EVN-2025-2

During the switch from RT1 to RT0 for the 5 cm observations, it was discovered that two equalizers were broken. They have been replaced with revised units.

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Technical VLBI friend