Metsähovi station report Q2/2018-Q1/2019
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EVN TOG meeting, Jodrell Bank Observatory, United Kingdom, June 26, 2019

1) Receiver status

Following Metsähovi's VLBI-receivers are currently operational: 2/8, 22, 43 and 86 GHz. All receivers have been working without any failures.

Preliminary discussions have been started to purchasing a new wide-band (triple-band) receiver (for K-, Q- and W-bands).

2) DBBC status

The dBBC has mainly been working without any problems.

3) Flexbuff and other recording systems

Flexbuff has been used successfully both in EVN and GMVA sessions. Local Flexbuffs are available with the space capacity of 196 TB (primary Flexbuff 144 T and secondary Flexbuff 52 TB). All astronomical VLBI-sessions are recorded to Flexbuffs. Mark5B+ is currently only use in geodetic-VLBI-sessions.

4) Software versions

We have installed FS 9.13.1, SDK 9.4 and jive5ab 2.8.1 (Mark5B+) and 2.8.1 (Flexbuff). We are using DBBC firmware versions DDC v 105, DDC v 106 and DDC v 106E, DDC v 107_3 and PFB version v 16_2. In addition FILA10G version v3.3.2_1 is in use. The dBBC's firmware version 107 was successfully tested during the GMVA I/2019 and EVN 6/2019 sessions.

5) EVN sessions in 2018 - 2019

Metsähovi Radio Observatory (MRO), Aalto University participated in following EVN-sessions with this period of time (II/2018 – I/2019):

- 11/2018: K-band
- 3/2019: K-band
- 6/2019: K-band

In addition, MRO participated in following EVN-Target-of-Opportunity-sessions (ToO):

- 9/2018: K-band
- 5/2019: K-band

MRO also participated in two GMVA sessions (October 2018 and April 2019).

6) Other issues

The renovation of Metsähovi Radio Observatory has now been scheduled to begin at the August 2019. The observatory premises will be renovated: the oldest part of the observatory will be dismantled and, new compensatory spaces will be built. In addition, the protective radome of the 14-metre radio telescope will be replaced in the summer season 2020. Also the motors (+drives) of the 14-metre radio telescope will be replaced. This is scheduled for the winter season 2019-2020. Due to these major building projects, there

might be some periods when the MRO-14 radio telescope is not fully operational.