Station report for EVN TOG meeting, Granada, Spain, October 4 - 5, 2018 Irbene station, Ventspils.

Irbene Ir – RT-32 radio telescope

Currently telescope is not available for VLBI because H-maser is sent to manufacturer for repair. It is expected that maser will be back at the beginning of the 2019. C/M/X receiver will be back from repair at the middle of October, 2018.

Developments:
Since last TOG meeting, work was invested to improve L-band receiver sensitivity and frequency agility. While still uncooled, preliminary results show more than 5x lower SEFD values than previous receiver. It is expected that L-band will be available during first EVN/eVLBI session of 2019.

Irbene Ib – RT-16 radio telescope

Telescope is operational and C/M/X band is still available for VLBI observations.

VLBI equipment status

RT-32:
Field System: 9.11.19
DBBC: 4xADB3L, Internal Fila10g, DDC v106/v106E
Mark5c + Glapper, jive5ab : 2.7.1 64bit, AMAZON,10GbE

DBBC 106E firmware issue of low fringe amplitudes and low cross-correlation amplitudes between channels still unresolved due to lack of time.

RT-16:
Field System: 9.11.19 ← upgraded this summer,
DBBC: 4xADB2, External Fila10g (only one VSI connection right now), DDC v105_1/v105E_1
Mark5c + Glapper, jive5ab : 2.7.1 64bit, AMAZON,10GbE

Flexbuffs:
1. Capacity: 8 TB, jive5ab : 2.8.1 64bit on Ubuntu 16.04
2. Capacity: 288 TB (36x8TB), jive5ab : 2.8.2-jet 64bit on Debian 9.3.
Another 288 TB Flexbuff is already shipped to Jive and during Oct/Nov session it is planned to observe fully using Flexbuff.

Continuous calibration

During this period, it was possible do devote only small amount of time to this issue. Currently non-invasive solution is already made and tested in lab, but tests in site are still pending. It is planned to continue with implementation, when C-band receiver of RT-32 is back from repair (middle-Oct, 2018)

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