Shanghai Station Report

1. Observations

T6 (Tianma 65m telescope) has participated in the EVN session III of 2020 and session I of 2021. Most of the observations were successful. Some observations were not observed or had to break shortly due to the Chinese Lunar Exploration Project, (ED048B, N20K3, EC071F, EC071G, EB074F, N20C3, N20L3, EM142, EB081B, EB081C, EM144B, ET045B, ET045C, EC071J, EC071K, EB085, F21K1, EB064I and EB064J). The operator wrongly deleted the EC074C and EC074D raw data by mistake. We lost scan from 13:01 to 13:13 because of the jive5ab error during EM144A. We also met some problems with EC071I from UT 8:00 – 11:00 due to wrong setup with LO frequency.

T6 uses the DBBC2, Fila10G and a Flex-buffer recorder for all EVN, global, and geodetic VLBI observations. All of the recorded data is e-transferred to the correlator in JIVE. The total capacity is 240 TB.

Development and maintenance activities in 2021

2.1 Flex-buff update

In January of 2021, we expanded the memory and solid-state drives of the Flex-buff system.

3. e-VLBI

More than ten e-VLBI experiments among the EVN have been carried out at a data rate of 1024 Mbps or 2048 Mbps for each e-VLBI session. We missed the session of February due to the China's First Mars Exploration Mission.

4. Prospects

For the upcoming session II & III, T6 could participate in L, C, S/X, K and Q band observations.

A Ku-band (12-18 GHz) receiver and a Ka-band (26-40 GHz) receiver are available and operating for single dish observation on the Tianma telescope. T6 could join the testing observation arranged by EVN.

T6 will miss the e-VLBI session of May due to the mission of Mars.