

Torun (Tr) Station Report

(Jan 20th, 2023)

Recent EVN Sessions

Three EVN sessions have been carried out since the previous report (Feb 7th, 2022).

Feb/Mar 2022 session.

Tr was scheduled in 32 regular disk projects at L, C bands. No major problems were noticed.

May/Jun 2022 session.

Tr was scheduled in 39 regular disk projects at L and C, bands. Full EB096C , EB089C and part of EM164B and EW029A experiments were not done due to antenna control system failure.

Oct/Nov 2022 session.

Tr was scheduled in 45 regular disk projects at L, C, X, and K bands. K band receiver was still not functional. Data from only last two hours of ES104 are useful because of wrong LO set. As a result of X band receiver problems full N22X1, ES103E, ES103F and part of ES103D, EB092C experiments failed.

Tr also participated in many PRECISE-VLBI experiments allocating total number of 510 hrs observing time during Jan 2022 - Jan 2023 period.

Cases of phase jump were reported. It seems that phase jumps was caused by instability of reference 10MHz signal. For not fully understood reasons (changes of fiber length) a time and frequency (T&F) distributor located at Physics Department in Torun falls into state outside automatic tuning range. We didn't have direct access to this device to check its working conditions. Attempt to reach remote access to the distributor were undertaken. Last time phase jumps were reported during latest e-EVN EV024F experiment. T&F distributor was tuned manually but we suppose that no clock search was done after reporting of gps-clock offset change of 0.1us (caused by tuning). As a result no fringes were reported.

Another incomprehensible case is big difference between **gps-clock offsets** measured at JIVE and Torun. Counter readings values in our control room are close to 0.6us but JIVE operators reports something around -18us.

Personnel Changes

As of Mar 1st 2023, Marcin Gawroński will become a new head of TRAO replacing Agnieszka Słowikowska. Rafał Sarniak is no longer a member of the technical team.

Agnieszka Słowikowska

Paweł Wolak

Roman Feiler

Marcin Gawroński