

Report from NESC meeting on Thursday 15th April 2021

The NESC held a meeting on Thursday 15th April on Microsoft Teams with **38** participants online.

Clément Courde presented some early analysis of the Galileo GASTON campaign, which was completed at the end of March. He showed some impressive periods of intense tracking by the ILRS network. The tracking was homogeneous over the Galileo satellites and on some days >80% of the time was covered by tracking. Clément thanked stations for their efforts and said work has begun to analyse the data collected.

Justine Woo brought to the NESC's attention the increasing file sizes for the satellite combined monthly full-rate data files as a result of kHz SLR stations. For example, these files were sometimes passing 1Gb in size for the Ajisai satellites. The NESC discussed the issue and it was said that these files are valuable and they can still be downloaded in reasonable time with broadband internet speeds. Also, other techniques produce larger data sets. However, this might become more of an issue once MHz SLR station start routine operations. Christian said that the EDC Data Center holds several hundred Gb of SLR data in total and he does not see this as a problem.

Ulrich Schreiber presented a novel use of space debris targets for diffuse reflections for time transfer between stations. It is necessary to determine the satellite shape and tumbling motion to produce uniform residuals and an accuracy of 0.5ns is achievable. A [paper](#) was published in Metrologica.

Michael Haefner reported on the AGGO station in Argentina. Michael described the UPS installation plans underway that will help with power supply interruptions. The complete overhaul of the gearbox and telescope control system have been completed. He also described the outreach programs that have been run from the station. The AGGO SLR system uses a 2-colour, 100Hz, 12mJ, 35ps laser with a C-SPAD and PET timer. Michael hopes it will be operational in about 6 months time.

Igor Ignatenko, Vacheslav Ivanov and Aleksey Drozdov reported on the Mendeleev station in Russia. The team are awaiting the delivery of the new generation station Tochka, which is being tested. The team are developing a new satellite search algorithm and presented a comparison of local pressure readings and those recorded at the station.

The Virtual Tour was discussed as it was recently announced that the ILRS Workshop will again be postponed to 2022 and a call for participants was sent out to stations.

The date for the next meeting was agreed as **Thursday 24th June at 1300UT**.

The presentation slides from the meeting will be available here https://ilrs.gsfc.nasa.gov/network/newg/newg_activities.html

If you missed the meeting and would like to catch up, please send me an email (matwi@nerc.ac.uk) and I can provide the recording.