NESC colleagues,

Here is a summary of our meeting on 24th June

The next meeting is scheduled for 26th August. If you would like to present anything at this meeting please send me an email to discuss.

With regards

Matt Wilkinson

Report from NESC meeting on Thursday 24th June 2021

The NESC held a meeting on Thursday 24th June on Microsoft Teams with **32** participants online.

Eventech

We were fortunate to be joined by **Pavels Razmajev** and his Eventech colleagues to discuss the development of event timers at the company. **Imants Pulksten** gave a presentation on the history of Eventech timers and the company's other activities, including working with ESA on space applications and lidar. He described the plans for the next event timer model, which is designed with modern components and will use USB-3 to achieve a much greater data output speeds. The AO33-ET timer was developed 10 years ago and some components are becoming unavailable. The team are developing the timer to work in Windows but will also look into supporting Linux. They answered questions on the internal delays, temperature compensation, supporting MHz SLR and best practice operation. The NESC thanked Eventech for joining us.

CPF and CRD v2

Randy Ricklefs supplied slides on the status of 'CPF & CRD v2
Implementation'. CPFv2 predictions are now available for all satellites and 15 stations have been confirmed to be using these. On 1st October prediction providers will be allowed to cease producing CPFv1 files.

CRDv2 is being produced by 9 stations. These have been validated at the Operational Centers and Data Centers, although some stations have not produced enough Lageos, Lares and Etalon data to meet the ASC testing criteria. To help stations develop and test their CRD v2 files, a tool is available on the EDC website and Van Husson and others are checking the

contents of the files for more subtle compliance issues. The goal is to complete the conversion effort by the end of 2021.

Meteorological Measurements

The NESC discussed how to improve and check the meteorological data recorded at stations, particularly the barometric data. This data must be accurate over time as they are used for a range correction and therefore directly impact our SLR measurements. Clément proposed that a Vaisala device from Grasse could be sent to other stations to collect data alongside the station instuments. It was thought that a week of data would be adequate, after which the station would send the unit to the next destination. Ulrich Schreiber thought this would be a good idea and it could uncover relative differences between stations. Mike Pearlman said that stations should also consider having a second unit for comparison and as a back-up. Matt Wilkinson showed the list of pressure units currently in use in the ILRS network and asked for recommendations for which devices performed well at a good price. Toshi Otsubo said he recently bought a Vaisala device that has 3 pressure sensors.

orbitNP update

Matt Wilkinson gave a presentation on the forthcoming update to the orbitNP.py software, available on the ILRS website, that can flatten range residuals and produce normal points. The new version includes a 1st iteration quick-pass option, takes station coordinates and velocities from an ILRS SINEX solution file, calculates peak-mean using a tangent fit to a smoothed profile and filters at two levels (to form normal points and to include in the full-rate output).

The date for the next meeting was agreed as **Thursday 26th August 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.

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SGF, Herstmonceux

http://sgf.rgo.ac.uk