

June 14, 2018

**ILRS Quality Control Board (QCB)**

**Telecon**

**June 13, 2018**

***Next meeting: Tuesday, July 17 at 13:00 UTC, 09:00 EDT, 14:00 in UK; 15:00 in Central Europe; 22:00 in Japan.***

Participants: Carey Noll, Erricos Pavlis, Mike Pearlman, Toshi Otsubo, Matt Wilkinson

**Mt. Stromlo Data Bias Issues**

The data since last May has been reprocessed with the new automated processor and submitted for review by the ASC. If it passes muster, the automated processor will be used operationally. At the moment, the automated processing is more restrictive than the legacy labor intensive process, giving smaller data sets. As the process is tested and more experience is gained, more intelligence will be added.

**Station Systematic Error Monitoring Pilot Project-- SSEM PP (Erricos)**

Only DGFI (Horst Mueller) has submitted the LAGEOS/Etalon series that were due on May 31. Once the others are submitted, a SSEM combination will be formed and evaluated. These results will form the basis for the future re-analysis for ITRF2020. The SSEM will be updated again later in the year when Jose's full set of C/M values are issued, tested and validated. When operational, the SSEM will provide weekly updates for the active station biases.

**ACTION:** Since Etalon will be an important component to the SSEM, we should try to stimulate Etalon data production at stations that have a reasonable potential; we should start by looking at current Etalon tracking levels. Then, examine those stations that have demonstrated GNSS tracking success to select some good candidate stations.

**Web Based Station Performance Tool (Erricos)**

The tool is in the process of being moved to a new platform at UMBC; some upgrades are yet to be implemented by the 21<sup>st</sup> IWLR. The Russian data in ITRF2014 now runs back over a year.

**JCET Portal:**

JCET has added a weather service for the ILRS network stations to its ASC product and information portal. Take a look: [http://geodesy.jcet.umbc.edu/ILRS\\_AWG\\_MONITORING/](http://geodesy.jcet.umbc.edu/ILRS_AWG_MONITORING/)

**Data Issues**

The Russians data do not include the higher moments in their calibration information; Matt had mentioned that he had furnished them with software that included this, but we do not know if it was useful to them.

Alexandre has said that the 2017-2018 T2L2 data would be made available by late 2018. Once the data are available they should be compared with LRO timing measurements for consistency.

**ACTION:** Ask Mark T. if the LRO results are available.

**Site Logs**

**ACTION:** Ask Randy/Christian where we stand on the implementation of Phase 1 including the on-line update

Randy continues to collate and vet items for inclusion in Phase 2; he should make sure that these are discussed with some of the more prolific stations to get their input.

### **Full-Rate Data and NP Testing**

Mike has asked Van Husson to follow-up on FR delinquent stations.

Matt is working on the NP software to make it more easily transferable; he will then do the NP studies with first priority on the spherical geodetic satellites.

Stefan Riepl and Horst have submitted an article for the JoG Special Issue on the impact of different ways of calculating NPs.

### **Center-of-Mass Parameters on New Satellites**

Missions are expected to provide all of the physical information required for the C/M correction models. In some cases, the correction models may be developed from laboratory measurements or from using already standard arrays (LEO and GNSS). The final correction model will be derived from ranging measurements once in orbit.

**ACTION:** The CB should establish an advisory group to advise now missions on this process; possible members are Toshi, Dave A, Matt/Jose. Other suggestions include Reinhart Neubert, Ludwig Grunwald. Any others?

### **Data Population on LAGEOS and Other Satellite Passes**

The Study Group (with Mark T. and Justine) tasked with recommending new criteria for evaluating (and rewarding) station performance (rather than just number of passes) has sent out a list of criteria for feedback and suggestions. They will give us feedback at the next CB meeting.

The CB should also issue a document of best practices for tracking operations including pass coverage and time separation of calibrations (as soon as we decide our proper strategies).

**ACTION:** Organize a round table to list out key issues.

### **Station Tools**

Discussions continue on the forum. If you have particular topics that you want to be included, contact Matt.

### **Engineering Issues**

We have been discussing the use of circular polarization in our lasers as a means of reducing polarization induced range errors. Herstmonceux has tried implementing appropriate optics at the output of their laser; the output from the telescope was an elliptical pattern that depended on the telescope orientation. These results are presented on the Forum. We believe that the Graz stations also tried testing this.

**ACTION:** Collect the experience and get some heads together to look at this more thoroughly and to plan a path forward.

## Next Meeting

Tuesday, July 17 at 13:00 UTC, 09:00 EDT, 14:00 in UK; 15:00 in Central Europe; 22:00 in Japan.  
Telecon info: Passcode: 317382, international phone numbers

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