

02/10/16

**Telecon on SLR Quality Control Plan  
January 12, 2016**

Participants: Erricos Pavlis, Horst Mueller, Toshi Otsubo, Tom Varghese, Matt Wilkinson and Mike Pearlman.

Others invited but unable to participate: Graham Appleby, Cinzia Luceri, Pippo Bianco, Georg Kirchner, and Carey Noll

This group will be called the “Quality Control Standing Committee (QCSC)” working within the Analysis Working Group, the Networks and Engineering Working Group and the Central Bureau, and anybody else who can help us to pursue these issues and guide remedial procedures. We should establish a web page for our notes and files (location to be decided)

**Analysis Working Group**

The Analysis Working Group has initiated a Pilot Project to homogenize the systems performance evaluating procedures among the Analysis Centers; they expect that all of the AC’s will have a test material to begin comparisons among the AC’s at the AWG meeting in Vienna prior to EGU. Once differences are understood, the AWG will agree on a standard set of procedures and parameters, and verify that the AC’s have implemented them. Once there is standardization, the AWG with the help of the QCSD will define the output products (content and format) that need to be generated for the stations and the operations centers in a streamlined form that the users can help diagnose operational issues.

Products will include the ability to examine data over varying lengths of time from a few days to many years (similar to what is now done by UMBC on its website).

**Performance Information**

Toshi has generated charts on LAGEOS, LARES, Ajsai, and Starlette/Stella showing the success rate for several stations of (1) possible passes and (2) possible NP’s per successful pass. Most notable is that the Chinese stations are taking few NP’s per pass. This may have to do with pass switching and priorities on the Beidou satellites. Some differences may also so do to allowable operating horizon. This is causing a problem with the extraction of time biases in Toshi’s the QC process. It is not clear that it is having any effect on the reference frame product. We may want to ask some stations to provide more data on these satellites.

**ACTION Toshi:** Rerun the charts Try some setting all of the horizons at 30 degrees to see how horizon affects the results before we make any station contacts.

At some point these charts should be made available to the stations with sufficient explanation. In the meantime, Toshi's comprehensive performance charts for the NASA sites and for Herstmonceux have been sent to Tom Varghese and Matt Wilkinson respectively.

**ACTION Tom and Matt:** Provide feedback on the helpfulness of the charts, including comments on what could be added to improve the tool and how the charts should be annotated and commented so they might be made more useful to others.

Toshi is now including a request for an acknowledgement in his diagnostic messages. Others should do the same.

### **Networks and Engineering**

**ACTION Tom and Matt:** Provide a list of parameters and displays from the analyses that would be useful diagnostic tools for the stations.

We need to get the stations more involved in the early diagnostic procedures in their own stations. We should define tools/procedures/suggestions to define steps to be taken when particular diagnostics are received at the station.

The forum concept for station personnel will be stressed at the Potsdam Workshop in October.

At the Laser Workshop in Matera, Ivan Prochazka outlined a rigorous component-by-component approach to try to understand all sources of error in the SLR measurements. It is good concept to keep in mind. We should give it some thought. I think Tom Varghese has suggested similar ideas in the past.

### **Communication with the Stations**

**ACTION CB:** Determine the proper point of contact and interface for each of the stations

A list of the Site Log updates and configuration change notifications has been provided by Erricos.

**ACTION CB:** Look at the history of the Site Log updates and configuration change notifications to see which stations may be delinquent.

**ACTION Matt:** Follow up on the electronic forum concept to allow stations (and others) to share information and request help.

Messages with specific stations directed diagnostics and suggestions might be more effective than just posting charts on the website. We need to capture their attention and make this connection an important part of their routine. First – we need to make something available to them, perhaps with a directed message.

We also discussed if it was time to discriminate amongst active and long-inactive stations. We should keep those from whom we have not received data recently (how recently?) but who are making a “serious” effort to rebuild or upgrade.

### **Meetings**

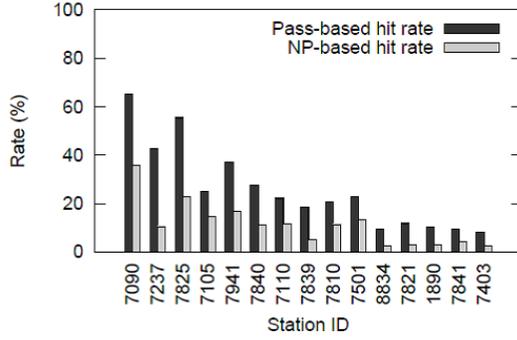
The QCSC will plan to meet once a month by telecon and face-to-face as possible (e.g., workshops and other events) to track progress and let ideas mature.

### **Organization**

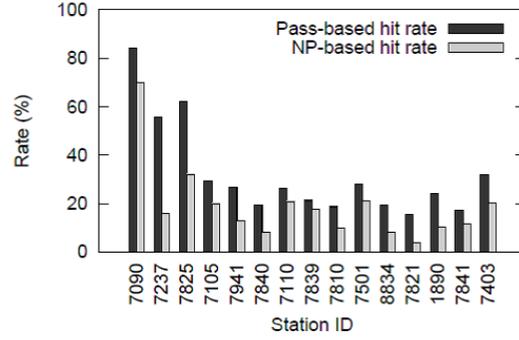
Next Meeting: February 11, 2016

Time: US East Coast – 9:00; UK 14:00; Europe 15:00, Tokyo 23:00

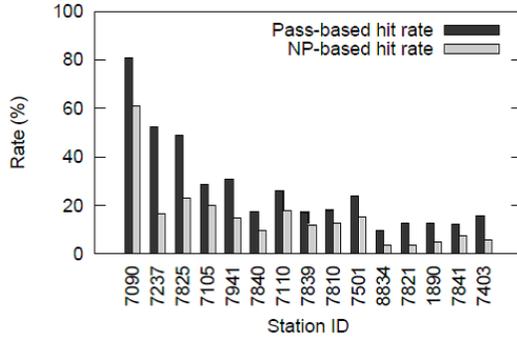
LAGEOS 1 and 2, July 2014 - June 2015



AJISAI, July 2014 - June 2015



LARES, July 2014 - June 2015



STARLETTE and STELLA, July 2014 - June 2015

