International Laser Ranging Service

Agenda for the Fall 2018 ILRS Analysis SC Meeting

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21st IWLR
Mt. Stromlo, Canberra, Australia

Operational Products: Status Reports & Future Plans

- AC & CC Reports (*including one from the new IAA LLR AC*)
- ACs must report on the status of:
  - *Adopting of the revised analysis procedures and modeling standards (per ITRF2014 reanalysis, secular pole, T2L2 T_Bs, etc.) for the re-analysis products*
  - *Results from testing various High Frequency EOP models under the IERS Pilot Project*
- Re-analysis (weekly series) with ITRF2014 (i.e. the updated SLRF2014 version) plan:
  - *CoM model update status: what is available? when do we expect the final version?*
  - *SINEX products requirements for submission to the next ITRF development effort*
    - *We need to adopt the format for inclusion of the applied systematics model*

Operational Products: Status Reports & Future Plans

- Presentation by Randy Ricklefs on upcoming CPF and **CRD** Formats' update process:
  - *Discussion and plans for testing (and later adopting) the new CRD Format v2.0*
    - Which ACs have reviewed the new format?
    - Who will participate in testing data delivered in the new format and by when?
    - Plan for the adoption of the new format in the near future?

Station Systematic Error Monitoring Project

—The Operational Phase

- Comments on the combination results of the currently available series
- Reports of delinquent ACs on their status and ability to deliver operational products - **DEADLINE**
- Results from the so-far submitted series and the schedule for operational product delivery:
  - Identify the stations worth to study, eliminate stations with very brief occupations (e.g. MEDLAS campaign sites, etc.) and eliminate them from our ITRF submissions;
  - Adopt "operational" delivery schedule: deliver weekly arcs with freely adjusted systematics;
  - Delay product delivery to benefit from a more stable SLR NP data set and better EOP;
  - Discussion of the averaging process, the identification of breaks, validation, testing, etc.
- Can we have this service online and operational by March 1, 2019?
- Implementing timing errors by means of T2L2 tracking on Jason-2 in our Data Handling File beyond 2016 – **T2L2 is now PERMANENTLY turned off!!!**

Planning for the Development of ITRF20XX

- *Can we start our reanalysis soon, assuming that the latest and best CoM estimates for the targets we use for ITRF development are now* **available** **(are they?)** *?*
- *Can we complete the LARES and low degree gravity PP by the summer of 2019?*
- *This will take us to end of 2019 before the CCs will have a stable set of contributions to start the initial combination process for ITRF2020;*

- *The CCs estimate they need 6-8 months to complete this process based on the ITRF2014 experience (and the prior models);*

- *This implies that we should be able to include most all of 2019 in the reanalysis, so we can fine-tune our contribution to the new model ITRF2020 over the next year and include 2020 in the final delivery;*

- *This plan assumes that all of the LARES data will also be part of this analysis this time around.*

Planning the next Pilot Project and launch date:

- *We had agreed in Vienna to deliver one year as a test, but nothing happened:*
  - *Estimation of low-degree SH of the gravity field plan: ???*
  - *Inclusion of LARES as a 5th satellite in our operational products plan: ???*
- *Revisit NT Atm. Loading & Gravity changes implementation as an internal PP (eventually to be used operationally for new series—NOT for ITRF use)*
- *Discussion of a plan for the expansion of the targets used in operational products, with the intent to produce higher quality EOP in a shorter timeframe (e.g. the day after the data were collected)*
  - *This can be running in parallel with the reanalysis, since it is a PP and we will not have strict delivery deadlines; most of the work will be to coordinate between ACs and make sure we all use the same or similar/equivalent modeling.*

Special Issue of the Journal of Geodesy Status

No.	Article Title	Status Date
1	The SAO and the CNES contributions to the International Laser Ranging Network	18 October 2018
2	Information Resources Supporting Scientific Research for the International Laser Ranging Service	12 October 2018
3	Modernizing and Expanding the NASA Space Geodesy Network to Meet Future Geodetic Requirements	21 September 2018
4	Assessment of the impact of one-way laser ranging on orbit determination of the Lunar Reconnaissance Orbiter	11 September 2018
5	Rapid Response Quality Control Service for the Laser Ranging Tracking Network	1 September 2018
6	The Next Generation of Satellite Laser Ranging Systems	1 September 2018
7	NASA's Satellite Laser Ranging Systems for the 21st Century	17 August 2018
8	Time and laser ranging: A window of opportunity for geodesy, navigation and metrology	8 July 2018
9	Laser and Radio Tracking for Planetary Science Missions - A Comparison	8 July 2018
10	The NASA Space Geodesy Network	5 June 2018
11	Satellite Laser Ranging to Low Earth Orbiters - Orbit and Network Validation	30 March 2018

8 additional articles are currently under review and a small number are yet to be submitted

Other topics, next meeting…

- Next ASC meeting at EGU 2019
- TENTATIVE DATE/TIME: April 6 or 7, (*depends on IERS DB date*) 9:00 – 17:00