

Agenda for the 2015 ILRS Tech. Workshop AWG Meeting

Saturday, October 24, Casa Cava, Matera, Italy, 9:00 – 17:00

ITRF2014P EVALUATION REVIEW:

- **ITRS Presentation on ITRF2014P (ZA)**
- **ASI – CC**
- **JCET – CC**
- **AC Reports**

ITRF2014x EVALUATION PLANS & SCHEDULE

- Which of the ILRS ACs are ready to support a re-analysis of the entire or part of the SLR data set that went into the development of ITRF2014 using the released model and associated EOP series?
- What other tests, e.g. POD for specific missions, are any of the ACs willing to test the new model on?
- Which ACs would consider re-estimation of station systematics to verify that the new model has not introduced any artifacts and any newly adopted “breaks” in any station time series is consistent with the data?
- Other suggestions?

MAJOR TOPICS FOR DISCUSSION:

- 1. Orbital Product finalization and release schedule (ALL ACs contributing now)*
- 2. Revision of analysis procedures and modeling standards*
- 3. Routine estimation of systematic errors for all sites*
- 4. Revisit NT Atm. Loading & Gravity implementation as an internal PP*
- 5. Estimation of low-degree SH of the gravity field*
- 6. Inclusion of LARES as a 5th satellite in our operational product development*
- 7. Other topics?*
- 8.*

Orbital Product Finalization and Release (PP):

- CC report on test combinations and comparisons;
- Ensure that all ACs have submitted up-to-date Analysis Description files to ensure consistent modeling in developing the orbits;

Revision of analysis procedures and modeling standards:

- Need to plan how we will migrate the current operational series to a design like the one used during our ITRF2014 reprocessing effort
- Steps needed to achieve the switch:

- All ACs should be able to easily switch to the new approach, provided the required input is readily available;
- We are in the process of developing a mechanism that would provide the ACs with gravitational coefficients for the lowest degrees as a substitute to the series provided by CSR for the reanalysis;
- Once we include the estimation of low degree harmonics in our operational products, this will be a trivial step;

Routine estimation of systematic errors for all sites (PP):

- Which ACs are currently delivering systematic error estimates?
- Develop quick response for improved station positions needed by QC ACs (AI 14)
- Discuss *a priori* constraints level for estimated errors
- Adopt an official product format (single s/c estimates, combined, etc.)
- Combination process for such estimates and development of an open data-base accessible by stations, researchers, public, etc.

Revisit NT Atm. Loading & Gravity implementation as an internal **PP**:

- Results of the GGFC/ITRS-run PP were inconclusive and mixed, indicating possible errors in the development of the input loading data sets in various s/w-compatible formats from the original release at GGFC;
- SLR suffers of the blue sky effect and adopting the correct application of NT Atm. Loading at the stations will improve our operational products;
- ITRS' reservations about the application of the models do not apply here since for TRF development purposes we always resort to a dedicated reanalysis in which case we can always forego the application of such models to conform with the ITRS rules;

Estimation of low-degree SH of the gravity field (**PP**):

- Clarify which ACs are now ready to support this product (**ESA & NSGF???**);
- Decide on the test-period for a PP comparing results to independently developed series (e.g. the CSR series used in our ITRF2014 reanalysis);
- Since this capability will be required for the optimal incorporation of the LARES data into our operational products, this PP needs to be completed before or in tandem with that of the addition of LARES to our target list;

Inclusion of LARES in our operational product development (PP):

- LARES can add a lot of strength to our products and at the same time allow us to deliver low-degree harmonics (e.g. 5x5) on a weekly-arc basis routinely;
- A PP following (as an extension) the PP for the validation of estimation of low-degree SH would help iron out any modeling differences between ACs and ensure that everyone is on the same page;
- Need to adopt state-of-the art gravitational and tidal models in order that higher degrees have negligible errors and those errors will not leak and corrupt our estimates;
- We will need to have some test results for various such models, so the ACs that are involved through other efforts in the evaluation of such models should provide guidance on the subject (publications, etc.);

Other topics, next meeting...

– Next AWG meeting???

Last meeting action items:

✓ = DONE

1. UPDATE AWG pages on ILRS recently launched website (send comments/suggestions to ECP)
14. JCET, DGFI, HITU and SAO to discuss the procedure for quick coordinate updates for QC process
16. ACs must send their updated description files for their operational products to Carey
19. **STATUS:** *ESA & NSGF AC must implement the gravity coefficient parameter estimation???*

ECP AIs: New Mean Pole, GGFC contact, Gravitational Model tests

GA AIs: LARES CoM inclusion in the s/w distributed through ILRS

CL – Cinzia Luceri
GP – Gilda Pace
DT – Daniela Thaller
ECP – E. C. Pavlis
FD – Florent Deleflie
GA – Graham Appleby
HM – Horst Müller
RK – Rolf König
ZA – Zuheir Altamimi