



Reports from the AC and CC

• ASI – AC & CC

AC:

- nominal routine operation for weekly and daily products.
- Station qualification for Arkhyz (1886) was performed with positive results (a few centimetres mean pass residuals). The data of FTLRS-Tahiti (7822) were analyzed to compute the site coordinates, now included in the new release of SLRF2008; the mean pass residuals are below 1 cm.
- Center-of-mass correction as proposed by Graham Appleby, tested on one week only, and the residuals seem smaller: 1 mm in the residual mean and roughly 0.5 mm in the residual wrms.

CC:

- Smooth transition to SLRF2008.
- GA LOD has still problems and it is not included in the LOD combination.
- New DGFI solution: 3 weeks analyzed, good impact for the combination, looseness acceptable even if low looseness for X and Y. The sigmas for the EOP are twice as large as the other analysis centers.
- **ESA solutions are not available since the end of July 2011 (inquire why)**
- Orbit combination of SP3C files: preliminary evaluation, data availability. The files are expressed in the AC loose reference frame and the first step is the similarity transformation to SLRF2008 (6 parameters, no scale factor). The orbit combination is a pointwise weighted combination using the wrms w.r.t. the SLRF2008 combination as weight. Test on 4 weeks shows large difference in the along-track component except for the comparison between BKG and GFZ. The differences can be explained by the residual difference in the reference frame that cannot be removed. Discussion follows on the possibility to switch to orbits expressed in SLRF2008 instead of loose reference frames. A test will be made to estimate orbits using SLRF2008 and another test using the weekly estimated combined coordinates to check on one hand if the differences can be explained by the use of a loose reference frames and, on the other hand, if there are significant differences between the use SLRF2008 and the estimated weekly reference frame.

• BKG:

- Implemented the estimation of the 2x2 gravity field, SINEX output ready by next November.
- Atmospheric gravity effect on the orbit still not available (~by end of 2011 – maybe)

• DGFI:

- Some problems solved, the new solutions are equivalent to all the other ACs, some changes needed in the EOP.
- The CRD data can now be used and they can be mixed with the QLNP.

- Data flow problem between EDC and ITT (HTSI successor), the QLNP are not hourly available at ITT. Now the quarantined data are managed properly at EDC and CDDIS (but only in the case of CRD data!).
- Activities done for the data qualification of Arkhyz and FTLRS/Tahiti.
- Rapid Service Mail established in May 2011, 9 messages until now, 3 responses received. Available at <http://rapidservicemail.dgfi.badw.de>
- **The CB can help to improve the site feedback.**
- Data Handling file: last update in November 2010, more frequent updates are reasonable

- **ESA: no representative of the AC**

- **GA: no representative of the AC**

- GFZ: no issue for loading and atmospheric gravity

- **GRGS/OCA: no representative of the AC**

- JCET – AC & CC

- Station validation and SLRF2008 update
- CRD validation in progress
- SLRF2008 implemented in the combination process and working on the SP3c orbit file combination.
- Validation of the data availability, the latency of the weekend data seems to be too high.
- Loading and gravity models: Atmospheric loading data available at IERS GGFC, Geodyn-compatible files available from JCET, GRACE project files available from GFZ, new service from TUW to provide atmospheric loading and gravity effects. More information will be sought for from the different groups (“suppliers”). Tests will be done to compare these datasets.
- New CoG model from Appleby tested over the period 2000-2011. The new model seems to be ~1 mm worse than the old one, both in the mean and in the rms of the residuals. Need to perform a full solution and look at the resulting biases.

- NSGF

- Table of Lageos and Etalon CoG corrections ready, they only need small updates. Ajisai table is almost ready and the work for Starlette and Stella will start soon.
- Progress with SATAN: some tests done on atmospheric loading, ready to work with the atmospheric gravity (~by the end of 2011 – maybe)

AI : analysis centers should update their description file and include it into the sinex file.

Improvement in the ILRS official products

- Target-signature specific to site/mode implementation:
 - PP for L1&2 & E1&2: Graham Appleby delivered s/w to implement time-dependent CoG offsets for 1983 to present
 - JCET and ASI made some tests as reported in their presentations

AI: submission with the new values to be started with the first submission in October (v35)

AI: Erricos will ask Carey Noll to move the v35 files in a test directory as they come in

- Atmospheric gravity and loading modeling:
Available models:
 - Rolf has provided info on the GFZ-produced ECMWF products (for non-Geodyn users)
 - Test files from ECMWF, 6/3-hour products: PP using one year (2007) — Loading effect (on sites), Gravitational effect (on orbits)
 - New test files from TUW service
 More information will be sought for from these different groups (“suppliers”). Tests will be done to compare these datasets.

AI: Erricos will distribute the GFZ and JCET documentation to the Analysis Centers

- Low-degree harmonics of the gravity field from SLR (degree/order 2)

AI: Daniela Thaller will send information on formatting to the Analysis Centers

AI: Analysis Centers will start the 2x2 gravity field parameters in the first submission in November (v35), if the test on the CoG corrections has been completed.

ORBIT FILES

Evaluation and combination of the orbit files from ASI. As reported, the differences are large above all in the along-track component. A possible reason can be identified in the use of the loose reference frame. A pilot project will start to investigate the cause of the problem.

AI: AC will submit orbits with SLRF2008 and EOP fixed starting from the first submission in October. Final orbit files expected by the end of the year.

Evolution of the ILRS/AWG products:

Daily and weekly products will be delivered as they are until, most probably, late April after the next AWG. The daily product will become the official product with a low latency. The unique difference with respect to the actual product will be the updated CoG corrections. The weekly product will be the official product with a higher latency, 10-15 days, and it will contain the 2x2 gravity field solution and the atmospheric loading and gravitational effect modeled.

Switch from QL NP to CRD

Validation process still running. QL NP format to CRD: to be coordinated with CB decision on data flow issues

Data Handling & Discontinuities files

See DGFI report

New/Returning station qualification process:

Arkhyz (1886) validated by ASI/DGFI/JCET, data not quarantined anymore

FTLR-Tahiti (7822) validated by ASI/DGFI/JCET and data will be soon removed from quarantine (see reports)

LLR UPDATE

Qualification of the new/returning sites is still under review. Anyway, the process will not be as strict as for SLR.

The LLR info (web pages) will be included in the new ILRS website.

Next meeting (tentative date):

At the EGU, Saturday, April 21, 2012

ACTION ITEMS SUMMARY:

AI : analysis centers should update their description file and include it into the sinex file.

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AI: AC will submit orbits with SLRF2008 and EOP fixed starting from the first submission in October. Final orbit files expected by the end of the year.

List of attendees, AWG @ Zürich, CH - Fall '11

CHECK ✓	Last name	First name	Institution	e-mail
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Group photo:

