

Agenda for Fall 2012 ILRS AWG Meeting

Saturday, November 3, LNF, Frascati, Italy, 9:00 – 17:00

News Items:



On August 6, 2012, our colleague Steve Klosko passed away surrounded by family and loved ones. We will greatly miss his immense contributions to the field of satellite laser ranging, space geodesy, and other scientific research areas.

We dedicate this meeting to his memory, in recognition of his lifelong dedication to the SLR technique and Geodesy in general

- ILRS has launched a new website – AWG needs to update the pertinent content and maintain it in the future (**comments, contributions, suggestions are welcome!**)
- Toshi will not attend due to conflict with another conference, comments sent by mail
- Florent will not attend due to undergoing a reorganization and a move of the operations to Paris Observatory
- Ramesh Govind will not be attending due to lack of support from GA management (**IDS AC participation already nixed**)
- Margarita Vei will not attend due to unexpected change of plans – comments sent by mail

AC and CC Reports

- ASI – AC & CC
- BKG
- DGFI
- ESA
- ~~GA~~
- ~~GFZ~~
- ~~GRGS/OCA~~
- JCET – AC & CC
- NSGF

SLRF2008 updates

- New sites (e.g. new Russian) and improved coordinates for old sites, especially in use by QC-oriented ACs: need new policy and procedures:
 - Koganei, Simosato, and Concepcion experienced earthquakes and post-quake relaxation, requiring often updates
 - New stations e.g. in Russia, in areas void of previous coverage, need urgent validation to enter ILRS network
 - Should the QC ACs have to use the exact same set of station coordinates (SLRF2008) for such stations or do can we adopt a procedure that we provide regular updates (as needed) for all ACs?

New Products, modeling issues, New IERS Conventions (2010), etc.:

- Leap second implementation and related complications at ACs, are you ready for the next one?
- Status of the new CoM model Pilot Project (UPDATE):
 - Do we have an updated version with an improved description of station operational modes?
 - Are the models so far developed based on sound station configuration files? (last updated in 2006!)
 - CoM correction study is ongoing on the "smaller" satellites like LARES and STARLETTE (and automatically its twin STELLA). Not ready to provide the numerical tables yet, but we will hear the progress from Reinhart Neubert and Toshi Otsubo during the main workshop
 - Ries has adopted 78 mm for Starlette/Stella, the nominal -209.6 mm for BLITS, 133 mm for LARES, 99 mm for Ajisai and 65 mm (as compared to the nominal 56.2 mm) for LARETS. Uncertainty on these values is estimated at a couple of mm. No explanation why the apparent LARETS CoM is so different from the nominal.
- Atmospheric gravity and loading modeling (UPDATE):
 - Pilot Project of the GGFC for test products for 2006-2011 period
 - AWG responded to the GGFC PP prior to completing our own PP on the subject and as a result, several inconsistencies within our group caused the contributions to be almost one of a kind in all cases!
 - We need to re-harmonize the modeling standards of all ACs or at least document the differences in the appropriate description files

- Rolf König suggested that we clarify:
 - which gravity fields are allowed
 - apply atmospheric tides to the gravity variations YES/NO, which models are allowed?
 - apply atmospheric tides to the station deformations YES/NO, which models?
 - dito. ocean tides (?)
 - other background models of interest?
- Clearly some of these decisions will have major impact on our future products, e.g. low degree SHs, etc.

• Orbital Product:

- PP release of SP3c files, we have few months of SLRF2008 & IERS 08 C04 submissions from 5-7 ACs:

Analysis Center	Weekly pos+eop	Daily pos+eop	SP3c Orbit
ilrsa	X	X	
ilrsb	X	X	
asi	X	X	X
bkg	X	X	X
dgfi	X	X	X
esa	X	X	
ga	X	X	X
gfz	X	X	X
grgs	X	X	X
jcet	X	X	X
nsgf	X	X	

- Status for current contributors
- When will the remaining ACs (ESA & NSGF) release their SP3c product?
- When can we make the SP3c an operational product?

• Scheduling changes to the operational product (UPDATE):

- Once we decide on the new CoM model, we must discuss:
 1. The Atm. Loading & Gravity implementation (pending input from ITRS and GGFC PP)
 2. The estimation of low-degree SH of the gravity field (degree/order ??)
 3. The inclusion of LARES as a 5th satellite in the group of analyzed data and the possible elimination of the ETALONS due to diminishing data supply

- Schedule for inclusion of the new models in the “Definitive” product:
 - Plan for a future re-analysis in early **2013**, (depends on input from ITRS and GGFC PP), we **need** to do a “dry run” before we submit to ITRF2013 !!!

Systematic Errors /Corrections/Edits & Discontinuities Files

- Data Handling & Discontinuities files (UPDATE?)

New/Returning station qualification process:

- Status and recent experiences, interaction of the AWG with stations/network/OCs

LLR update on recent initiatives:

- Update on LLR community (science, technology, network, etc.)

Other topics ???, next meeting?

– Next meetings:

- **At next EGU in Vienna, Austria, Sunday, April 7, 2013**
- **We need to confirm that the next AWG meeting FOLLOWING the Spring meeting in Vienna, currently scheduled for 9:00 – 17:00, Saturday, November 9, 2013, in or around the LW18 venue in Japan, is acceptable to the majority. The main workshop starts on November 11, 2013. PLEASE MAKE A NOTE!!!**

ILRS Project & Products Status - *maintained on the ILRS web site, link:*

Projects' status: http://ilrs.gsfc.nasa.gov/working_groups/awg/awg_project_status.html

Action items from past AWG meetings

✓ = DONE

Pavlis check IERS procedure for station documentation after earthquakes and other transient events

Last meeting (EGU 2012) action items:

- Testing of atmospheric loading and gravitational variations to be done using the data over years 2008-2009. ECMWF files to be delivered for use in the test (ECP)
- Setup of a test directory at the DCs for acceptance of low-degree SH test solutions (ECP)
- ~~Devise a new bias letter code (HM)~~
- J CET and ASI will work on the selection of a stable sub-network for the DAILY series (ECP/CL)
- Atmospheric modeling to be included in SATAN asap and AWG notified (GA)
- ~~Bernese s/w needs to have the estimation of low degree harmonics included (DT)~~
- ~~AWG to respond to CB/GB and DF&P WG on the proposed DC data archives organization (ECP).~~
- Implementation of the new IERS Conventions 2010 in the AC/CC s/w
- ~~Follow up the IGS discussion of ORBEX and report back to AWG (ECP DONE): No change, format not yet adopted.~~
- ~~Generation of time-sensitive CoG tables by station in preparation, based on the current tables and the spreadsheet of the distilled sitelogs for the entire network (GA DONE).~~
- ~~The proposed TOC for the JoG Special Issue to be sent to AWG for acceptance of participation in the writing teams of the solicited papers. Once those are received, the TOC will be sent for approval to the JoG Editor (ECP DONE).~~

CL – Cinzia Luceri
CS – Cecilia Sciarretta
DT – Daniela Thaller

ECP – E. C. Pavlis
FD – Florent Deleflie
GA – Graham Appleby

HM – Horst Müller
RK – Rolf König
USch – Ulli Schreiber