

4.2 GGOS Unified Analysis Workshop

In cooperation with the GGOS Executive Committee the IERS Central Bureau organised the first GGOS Unified Analysis Workshop, taking place in Monterey, California, USA from December 6 to 8, 2007. By invitation representatives of the IAG services (GGOS, IERS, IGFS, IGS, IVS, ILRS, IDS) were selected by these individual services, 5 – 6 per service, in total 44 scientists.

The scope of the workshop was to support one of the important goals of GGOS, which is to advance the combination and integration of the various space and in-situ geodetic techniques. This goal can only be achieved with the help of all the IAG Services, and especially the IERS and IGFS.

Even if considerable progress has been made in the effort towards a rigorous combination of the various space geodetic techniques (e.g. the realization of ITRF2005, making use of a new approach based on time series of SINEX files), there are still many deficiencies (missing parameters), inconsistencies and systematic effects to be addressed. Therefore the important topics of the workshop were the following:

- Assessment of technique-specific systematic biases affecting the co-location on the ground and on satellites
- Step by step inclusion of all parameter types common to more than one observation technique
- Definition of common standards for all these parameters and their a priori values/models
- Improvements in combination strategies and rigorousness
- Development of new products based on a rigorous combination of the space geodetic techniques
- Setup of a common data portal for the products and data, and the definition of meta data and data flow

The workshop was intended to be a forum to exchange information and results and thus increase the common understanding of all the technique representatives for each of the individual techniques as they contribute to GGOS.

Position papers were put together by the chairs and co-chairs of the six sessions, which were in details:

- Session 1: Details of Product Generation of the Services and Future
- Session 2: Technique-Specific Biases and Effects at Co-Location Sites/Satellites

- Session 3: Standardization/Extension of Common Parameterization
- Session 4: Combination Strategies and Aspects
- Session 5: New Products Based on Inter-technique Combinations
- Session 6: GGOS Portal and Meta Data Flow

The detailed programme including the position papers and presentations is available at <<http://www.iers.org/MainDisp.csl?pid=66-1100207>>.

The workshop ended with the following action items and recommendations:

- Extension of the SINEX format for other parameter types and representations
- Tests on atmospheric loading: application on the observation or solution level?
- Generation of daily SINEX files (IVS Intensives and IGS Rapids)
- Parameterization and modeling for the next ITRF
- Benchmark tests for models common to several techniques
- Documentation of AC modeling standards and parameterization
- Definition of meta data standards (e.g. SINEX meta data block)

The detailed and updated list can be found at <http://www.iers.org/documents/workshop2008/presentations/UAW_Action_Items_Status_Apr08.pdf>.

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