



DORIS and GNSS processing at CNES/CLS for the contribution to the next ITRF2013

Sylvain Loyer (1), Hugues Capdeville (1), Laurent Soudarin (1), Adrien Mezerette (1), Jean-Michel Lemoine (2), Flavien Mercier (2), and Felix Perosanz (2)

(1) CLS, Ramonville St-Agne, France (sloyer@cls.fr), (2) CNES, Toulouse, France

CNES serves as Analysis Center in the International DORIS Service (IDS) and the International GNSS Service (IGS). DORIS and GNSS data are processed by its subsidiary CLS with the GRGS package software GINS/DYNAMO. For the contribution to the next release of the International Terrestrial Reference Frame planned this year (ITRF2013), two decades of data were analyzed (1993-2013 for DORIS, 1998-2013 for GPS, and 2009-2013 for GLONASS). In this context, the CNES/CLS Analysis Centers provided SINEX solutions to the IDS and IGS Combination Centers, respectively multi-satellite weekly solutions and daily solutions. Normal equations derived from this analysis are also made available to the GRGS Combination Center for the combination at the observation level of the geodetic parameters measured by DORIS, GPS, SLR and VLBI techniques.

The purpose of this presentation is to point out how the overall quality of the DORIS and GNSS data processing benefits from the use of the same software and a common basis of models. Here, we present the modeling standards, the networks and the processing strategies. Assessments of some models are also discussed. The quality and the homogeneity of the products (orbits, station coordinates and Earth Orientation Parameters) over the complete period are shown, as well as the temporal variations of some parameters (dynamical parameters, orbit residuals, internal orbit overlaps ...). Some examples of time series of DORIS and GNSS station positions at collocated sites complete this presentation.