Geophysical Research Abstracts Vol. 16, EGU2014-119, 2014 EGU General Assembly 2014 © Author(s) 2013. CC Attribution 3.0 License.



IDS contribution to ITRF2013

Guilhem Moreaux (1), Frank Lemoine (2), Pascal Willis (3), Hugues Capdeville (1), Michiel Otten (4), Petr Stepanek (5), Sergei Kuzin (6), and Pascale Ferrage (7)

(1) CLS, Orbitography and Geodesy, Ramonville Saint-Agne, France, (2) NASA/GSFC, Greenbelt, Maryland, USA, (3) IGN, Institut de Physique du Globe, Paris, France, (4) ESA, European Space Operations Centre, Darmstadt, Germany, (5) Geodesy Observatory Pecný, Ondřejov, Czech Republic, (6) Institute of Astronomy Russian Academy of Sciences, Moscow, Russia, (7) Centre National d'Etudes Spatiales, Toulouse, France

In the context of the forthcoming ITRF 2013, the IDS Combination Center is involved in the estimation of DORIS stations positions/velocities as well as Earth orientation parameters from DORIS data. These computations are based on the latest series of all of the 6 IDS Analysis Centers multi-satellite weekly SINEX solutions from January 1993 to December 2013.

The primary objective of this study is to analyze the DORIS contribution to ITRF2013 in terms of (1) geocenter and scale solutions; (2) stations positions. Furthermore, we will focus on the impact of new standards such as the application of DORIS ground antennas phase laws in the data processing and improved modeling of DORIS ground beacon frequency variations. We will also address benefits of including new DORIS data in the IDS combination compared to ITRF2008, including data from new DORIS missions (e.g. Jason-2, Cryosat-2), as well as improved data for both Jason-1 and SPOT-5 where these satellite data are now corrected to accommodate perturbations introduced by the South Atlantic Anomaly (SAA).

In addition we will compare this new DORIS ITRF realization to the previous realization (ITRF2008).