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Research activities for the DORIS contribution to the next International Terrestrial Reference Frame

L. Soudarin (1), G. Moreaux (1), F. Lemoine (2), P. Willis (3), P. Stepanek (4), M. Otten (5), R. Govind (6), S. Kuzin (7), and P. Ferrage (8)

(1) CLS, Orbitography and Geodesy, Ramonville Saint-Agne, France (gmoreaux@cls.fr), (2) NASA/GSFC, Greenbelt, Maryland USA, (3) IGN, Institut de Physique du Globe, Paris, France, (4) Geodesy Observatory Pecný, Ondřejov, Czech Republic, (5) ESA, European Space Operations Centre, Darmstadt, Germany, (6) Geoscience Australia, Canberra, Australia, (7) Institute of Astronomy Russian Academy of Sciences, Moscow, Russia, (8) Centre National d'Etudes Spatiales, Toulouse, France

For the preparation of ITRF2008, the IDS processed data from 1993 to 2008, including data from TOPEX/Poseidon, the SPOT satellites and Envisat in the weekly solutions. Since the development of ITRF2008, the IDS has been engaged in a number of efforts to try and improve the reference frame solutions.

These efforts include (i) assessing the contribution of the new DORIS satellites, Jason-2 and Cryosat2 (2008-2011), (ii) individually analyzing the DORIS satellite contributions to geocenter and scale, and (iii) improving orbit dynamics (atmospheric loading effects, satellite surface force modeling. . .).

We report on the preliminary results from these research activities, review the status of the IDS combination which is now routinely generated from the contributions of the IDS analysis centers, and discuss the prospects for continued improvement in the DORIS contribution to the next international reference frame.