



Status of the DORIS Contribution to ITRF2008

J. J. Valette (1), F. G. Lemoine (2), P. Willis (3), L. Soudarin (1), P. Stepanek (4), M. Otten (5), R. Govind (6), S. Kuzin (7), K. Le Bail (8), P. Moore (9), and the DORIS Team

(1) Collecte Localisation Satellite, Ramonville Saint-Agne, FRANCE, (2) NASA Goddard Space Flight Center, Greenbelt, Maryland, U.S.A. (email: Frank.G.Lemoine@nasa.gov), (3) IGN/IPGP, 75205 Paris FRANCE, (4) Geodetic Observatory Pecny, Ondrejov, CZECH REPUBLIC, (5) European Space Operations Centre (ESOC), Darmstadt, GERMANY, (6) Geoscience Australia, Canberra, AUSTRALIA, (7) Institute of Astronomy, Russian Academy of Sciences, Moscow, RUSSIA, (8) Goddard Earth Sciences Technology Center, University of Maryland, Baltimore, Maryland, U.S.A., (9) School of Civil Engineering and Geosciences, Newcastle University, Newcastle, U.K.

The International DORIS Service (IDS), in operation since 2003, submitted three sets of solutions to ITRF2005 from the IGN/JPL, LEGOS/CLS, and INASAN analysis centers, but no DORIS technique combination. Since that time new analysis centers, have become operational, including the Geodetic Observatory Pecny (GOP), and the European Space Operations Center (ESOC). Other analysis centers who have made SINEX submissions for inclusion in ITRF2008, including Geoscience Australia (GAU), the University of Newcastle (NCL), and the Goddard Space Flight Center (GSC). These analysis centers run different software, including Gypsy (IGN & INASAN), GINS (LCA), Bernese (GOP), NAPEOS (ESOC), GEODYN (Geoscience Australia and NASA GSFC) and FAUST (NCL). Each center applies own analysis strategy in the preparation of their SINEX contribution. The objective is to combine these analysis center contributions into a single IDS combination.

The SINEX submissions are processed using the CATREF software, and we describe the results in comparison to ITRF2005. For example, preliminary results already obtained for the period from 1999 to 2008 show a strong improvement in the scale agreement between the analysis centers. We also describe the results of detailed intercenter orbit comparisons using DORIS satellite orbits, which allow us to diagnose potential anomalies in the processing and implement improvements in the future DORIS/IDS ITRF submission.