Precise Orbit Determination of DORIS satellites by CNES/CLS IDS Analysis Center in the frame of the next ITRF

Hugues Capdeville (1) and Jean-Michel Lemoine (2)

(1) Collecte Localisation Satellites, Ramonville Saint-Agne, France (hcapdeville@cls.fr), (2) CNES, Toulouse

We are currently preparing the processing configuration for our IDS contribution to the next ITRF realization. We will adopt the last standards and models recommended by IERS and IDS. We now use body and solar array quaternions for Jason-2 and 3 satellites.

A Precise Orbit Determination (POD) status for DORIS satellites by taking into account all these improvements will be presented. We will give statistical results such as one per revolution empirical acceleration amplitudes and orbit residuals. We will also give some comparisons to the CNES precise orbit used for altimetry and to GPS-only orbits contributing to the Copernicus POD Quality Working Group of Sentinel. Some external validations of our orbits will be done, such as with independent SLR measurements processing as well as through the use of altimeter crossovers.