



Contribution of the DORIS/JASON-2 measurements to the geodetic time series

L. Soudarin (1), H. Capdeville (1), and J.-M. Lemoine (2)

(1) CLS, Space System Metrology, Ramonville St. Agne, France (laurent.soudarin@cls.fr, 0033-561394750), (2)
CNES/GRGS, Toulouse, France

Jason-2 was launched on June 20th, 2008 with the first DORIS DGXX instrument onboard. This new generation of DORIS receivers has the capacity to track up to 7 beacons simultaneously, compared to one and two beacons for the first and second generations respectively, increasing dramatically the number of available measurements. The other interest of Jason-2 is that it brings to the current DORIS constellation valuable measurements on a non polar orbit (inclination 66°) at a higher altitude (1330 kms) than the SPOTs and Envisat (800 kms). Jason-1, which is on the same orbital plane as Jason-2, could not be used for positioning purposes because of degraded performances due to the South Atlantic Anomaly.

The goal of this paper is to analyze how the contribution of Jason-2 can improve the geodetic performances of the DORIS system. We look at the noise reduction of the coordinate time series and earth orientation, and the effect of these new data on the geocenter and the scale.