IDS Workshop, Nice, France, 12-14 November 2008

Workshop Summary

IDS Analysis Centers / IDS contribution to ITRF2008
Seven DORIS analysis centers participated in the workshop, including four official analysis centers (IGN; LCA or CNES/CLS; GOP or Geodetic Observatory Pecny; ESA or European Space Operations Center), and three candidate analysis centers (UNC - University of Newcastle; GAU - Geoscience Australia; and GSC - NASA Goddard Space Flight Center). All these centers have agreed to provide SINEX solutions for inclusion in the IDS combined solution that will be submitted to the IERS for ITRF2008. In addition, INA, Institute of Astronomy, Russian Academy of Sciences, will also submit a SINEX solution for the DORIS combination. For ITRF2005, only two individual DORIS solutions were included: IGN and LCA.

Future missions
The maintenance of the DORIS constellation with at least four DORIS satellites is now planned at least through 2019. Future missions that will carry a DORIS receiver include Cryosat-2 (ESA cryosphere mission, launch 2009), Altika (ISRO/CNES ocean altimetry mission, launch 2010), HY2A (CSA/CNES ocean altimetry mission, launch 2010), SENTINEL-3 (ESA observation platforms, launch 2012).

Jason-2/DGXX generation instrument
The Jason-2 DGXX receiver can track DORIS beacons with as many as seven channels, permitting many more instances of simultaneous observations. The spacecraft carries the high-performance on-board real-time DIODE orbit navigator. The DORIS data are furnished in form of phase measurements in a new GPS-like RINEX format. Precise orbit determination (POD) results obtained with Jason-2 indicate the receiver on Jason-2 is operating within specifications, producing 1-2 cm orbits.

South-Atlantic Anomaly correction
The SAA correction model of H. Capdeville and J.-M. Lemoine will be upgraded based on new information provided by the T2L2 experiment, and radiation monitoring package on Jason-2. The model will need to be adapted when Jason-1 is moved to the interleaved orbit (see next item).

Jason-1
Following an extended discussion at the Ocean Surface Topography Science Team Meeting, the Jason-1 spacecraft (operating in tandem flight mode with Jason-2) will be moved to an interleaved orbit. This means the ground track sampling will interleave with the ground tracks of Jason-2 for purposes of improving the temporal and spatial sampling of oceanographic features with altimetry. The orbit move will likely occur in February 2009.

New DORIS applications
- T2L2 (Time Transfer by Laser Link): time transfer experience on board Jason2 allowing the monitoring of the DORIS USO.
- GRASP (Geodetic Reference Antenna in Space): proposal of a new mission with all the geodetic technics (GNSS, DORIS, VLBI, SLR) collocated on one spacecraft.