

THE FUTURE INTERNATIONAL DORIS SERVICE

G. Tavernier (1), M. Feissel-Vernier (2), F. Lemoine (3), C. Noll (3), J. Ries (4), L. Soudarin (5), P. Willis (6)

(1) Centre National d'Etudes Spatiales, Toulouse, France, (2) Observatoire de Paris and IGN, Marne la Vallee, France, (3) NASA Goddard Space Flight Center, Greenbelt, Maryland, USA, (4) University of Texas, Center for Space Research, , Austin, Texas, USA, (5) CLS, Ramonville Saint Agne, France, (6) IGN/JPL, Pasadena, California, USA

Gilles.Tavernier@cnes.fr/Fax: +33-5-61282595

The DORIS system was developed for precise orbit determination and precise positioning on Earth. Following the inclusion of DORIS as a new IERS technique, six groups have been participating as Analysis Centers. Two IERS Data Centers have been providing the scientific community with DORIS measurements for several years: NASA/CDDIS and IGN/LAREG.

In 1999, following the recent IERS reorganization, it has been decided at the IAG General Assembly (Birmingham, UK, August 1999) to create a DORIS Pilot Experiment in view of creating an International DORIS Service (IDS).

The Central Bureau has implemented a DORIS Pilot Experiment Website: <http://ids.cls.fr> presenting the experiment organization, the two Data Centers, the Data Flow and Analysis coordination, the Station Selection Committee, providing reports, including the DORIS Mails, contacts, links and information about DORIS, including network site logs and station coordinates time series.

The IDS Central Bureau initiated in November 2001 an Analysis Campaign that originally focused only on sets of station coordinates derived from observations of the Spot2, Spot4 and Topex/Poseidon satellites. Starting in March 2002, the newly designated Analysis Coordinator (M. Feissel) joined the IDS Central Bureau to adapt the comparison capabilities to the results provided.

The preliminary results of the campaign were discussed during the Analysis Workshops held in Biarritz in June 2002 and in Marne La Vallée in February 2003.

Three satellites fitted out with second generation receivers have been recently launched : Jason-1 in December 2001, ENVISAT in March and SPOT-5 in May 2002. After an assessment period new measurements are now available for the Analysis Centers.

In winter 2001/2002, Geoscience Australia deployed a Doris beacon on the Sorsdal Glacier, then, in winter 2002/2003, on the Lambert Glacier, which are located in the vicinity of the Davis Station, Australian Antarctic Territory. It is the first site selected for the IDS Doris Pilot Experiment. New IDS sites will soon be equipped such as Burnie (Tasmania), Gavdos (Crete), and Wetzel(Germany)/TIGO (Chile).