THE DORIS PILOT EXPERIMENT STATUS

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DORIS was developed for precise orbit determination and precise positioning on Earth.

Following the inclusion of DORIS as a new technique in IERS, six groups have been participating as Analysis Centers: CNES/SOD, GRGS, and IGN in France, UT/CSR in the USA, DUT in the Netherlands and MCC in Russia. The first four groups have submitted regular results to IERS either for polar motion determination or for tracking stations coordinates and velocities. Other groups are still developing their processing capabilities. 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. Such a Pilot Experiment would give time to all groups to coordinate and improve their operationability in order to create on the long term and International DORIS Service (IDS). In the future, this scientific service would structure the DORIS community in order to provide scientific products for a broad range of potential users, starting by the IERS itself. This is done as common activity of the IERS and the IAG/CSTG (Commission of the International Association of Geodesy for the Coordination of Space Technique). This is very similar to what is done for GPS by the IGS, or for VLBI by the IVS or for SLR and LLR for the ILRS.

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. More information is regularly added.

The IDS Central Bureau initiated in November 2001 an Analysis Campaign that originally focused only on sets of station coordinates derived from the June 2001 observations of the Spot2, Spot4 and Topex/Poseidon satellites.
The preliminary results of the campagn will be discussed during the Workshop.
Starting in March 2002, the newly designated Analysis Coordinator (M. Feissel) joined her efforts with those of the IDS Central Bureau to adapt the comparison capabilities to the results provided. The objectives of the campaign now apply to the following set of results.
- Sets of station coordinates: global solutions, or time series (weekly, monthly)
- Satellite orbits
- Geocenter location time series
- Earth orientation (EOP) time series

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. After an assessment period new measurements will soon be available for the Analysis Centers.

During the 12th December 2001 to 5th February 2002 period, Geoscience Australia (formerly Australian Surveying and Land Information Group, AUSLIG) deployed a Doris beacon on the Sorsdal Glacier, which is located in the vicinity of the Davis Station (68°S-78°E), Australian Antarctic Territory. It is the first site selected for the IDS Doris Pilot Experiment.

This workshop, through presentations about:
- the DORIS Pilot Experiment (Session 1),
- Orbits and related products (Session 2),
- DORIS Analysis results (session 3),
- the IDS Analysis campaign (session 4)
and discussions during the poster session and Friday's Analysis and Network workshops should help to better define what people expect from IDS and what the priorities are (data delivery, products, formats...).