

# Recommendations

## IDS Plenary Meeting

### Paris, May 3-4, 2004

#### LEVEL ONE

**Recommendation I-1:** Supporting expected new operational Analysis Centers

It is important that more Analysis Centers participate in the generation of the IDS products. Groups wanting to participate must receive some help from the already existing AC. It is also important to understand why some groups stopped delivering results and to encourage them to resubmit new results.

All IDS components should bring their support to the development of these projects.

Pascal Willis: INASAN

Laurent Soudarin: IAA

Frank Lemoine: Geoscience Australia

Jean-Jacques Valette: AIUB-IGN-VUGT (Pecny, Czech Rep.)

**Recommendation I-2:** IDS request CNES to investigate the possibility to add future DORIS receivers on-board future other Space Agency missions, specially constellation of satellites such as NPOESS to ensure the current number of DORIS receivers in flight or even to increase it.

CB – CNES: Gilles Tavernier

**Recommendation I-3:** In order to use the DORIS/Jason data to generate the geodetic IDS products, the IDS encourages CNES to turn on the back-up DORIS receiver on-board the Jason satellite to test if its oscillator would be less sensitive to radiations over the South Atlantic Anomaly within the next three months. This change of receiver should be done as soon as possible. The IDS will then investigate if the new receiver performs better for geodetic applications and provide some feed-back to CNES.

CB – CNES: Gilles Tavernier

**Recommendation I-4:** IDS participation in the IERS Combination Pilot Project (CPP)

Participation in the IERS Combination Pilot Project with the standard requested products (routine contribution of intratechnique-combined Sinex data sets with station coordinates and part of the Earth Orientation Parameters) should become effective when at least three independent solutions are available and combined routinely. Until this is achieved,

(a) the Analysis Centers, the Analysis Coordinator and the Central Bureau should compare the current DORIS models (tropospheric corrections...) and analysis strategies, cooperate to improve the mutual consistency of the products, and solve issues such as the current scale bias between DORIS solutions and the ITRF,

(b) the Analysis Coordinator is encouraged develop a combination capability,

(c) operational Analysis Centers are encouraged to participate in the IERS Combination Pilot Project.

Analysis Coordinator: Martine Feissel-Vernier

**Recommendation I-5:** Ready-to-use IDS products

Time series of station coordinates, origin and scale of the TRF, polar motion and length-of-day derived from DORIS data analysis should be prepared and made available at the Data Centers under a form and with a documentation that makes them correctly understood and readily usable by outside users, e.g. for geodynamical interpretation. When 2 or 3 Analysis Centers will provide independant solutions, IDS will be able to provide combined products.

Analysis Coordinator: Martine Feissel-Vernier + CB: Jean-Jacques Valette

**Recommendation I-6:** The IDS thanks the CNES for the improvement made recently in the DORIS data delivery (including Envisat data) and request to have access to all DORIS data no later than 6 weeks after the day of the last measurement to really allow the generation of a unified DORIS weekly solution within the IERS time constraints.

**CB - POD**

**Recommendation I-7:** The IDS thanks IGN/SIMB for its work on the network as presented by Hervé Fagard, which is appreciated well beyond the DORIS community. An IDS Working Group should define criteria for site quality (quality of equipment, reference point stability, reliability of power supply, quality of station coordinates time series...) in order to identify a set of reference stations with accurate coordinates contributing to ITRF. The Working Group will also maintain a list of stations (DORIS permanent network, IDS campaigns) that contribute to the IDS.

**Working Group:** IGN/SIMB, Hervé Fagard, coordinator, Pascal Willis, Laurent Soudarin, John Ries, Frank Lemoine, Martine Feissel-Vernier, Zuheir Altamimi, Karine Le Bail

## **LEVEL TWO**

**Recommendation II-1:** An orbit comparison Working Group should be established.

**Eelco Doornbos**

**Recommendation II-2:** IDS Analysis Discussion Forum

In order to share in the present, and secure for the future, information, questions and answers on the problems encountered in the DORIS data analysis, the Analysis Coordinator with support of Analysis Centers should implement an Analysis Discussion Forum (see <http://lareg.ensg.ign.fr/IDS/disc.html>).

**Analysis Coordinator:** Martine Feissel-Vernier

**Recommendation II-3:** CB should look at the meta data available:

- Jason and TOPEX attitude quaternions
- Mass history for all satellites...

**CB:** Jean-Pierre Granier, Jean-Jacques Valette

**Recommendation II-4:** Providing IDS with complementary data.

Some data are currently not processed through POD and not delivered to the Data Centers (Wetzell station for instance). These data should be delivered. Tests should be conducted between CLS and 1 or more AC to finalize the delivery of DORIS data for stations outside the permanent network.

**CB:** Jean-Jacques Valette, Gilles Tavernier

**Recommendation II-5:** Monitoring DORIS events

Routine convergence of information and data on the DORIS system and network events should be organised and maintained by the relevant centers of the IDS, in such a way that current users miss none of it and new comers may find the complete information starting with the inception of the DORIS system.

**Analysis Coordinator:** Martine Feissel-Vernier + **CB:** Jean-Pierre Granier

**Recommendation II-6:** CNES should define a new DORIS data format for a lower preprocessed level and should make available some test data sets for all satellites during a short period of time to let the IDS AC investigate about the potential advantages of these new types of DORIS data. A format evolution procedure should be established from definition to tests, with the help of "experimented Analysis Centers.

**CB – CNES – IGN/JPL – CLS/LEGOS**

**Recommendation II-7:** Split the current DORISMail into DORISMail (general information for a large DORIS audience) and DORISReports: regular reports from Analysis Centers, from the Analysis coordination and from CNES POD (data deliveries).

The distribution list of the DORISMail remains the same and the DORISReport distribution list will start with Analysis Centers, Data Centers, IDS Governing Board and Central Bureau, CNES POD people delivering data to the Data Centers. These messages will be moderated.

**CB: Laurent Soudarin**

**Recommendation II-8:** CLS/LEGOS Analysis Center should distribute the already available solutions to the Data Centers.

**CLS/LEGOS AC: Laurent Soudarin**