

The IDS today and tomorrow

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International DORIS Service: history

- ➔ **IUGG, July 1999, Birmingham**
 - **IAG : DORIS Pilot Experiment**
 - **Assess the need and feasibility of an International DORIS Service**

- ➔ **September 1999: call for participation**

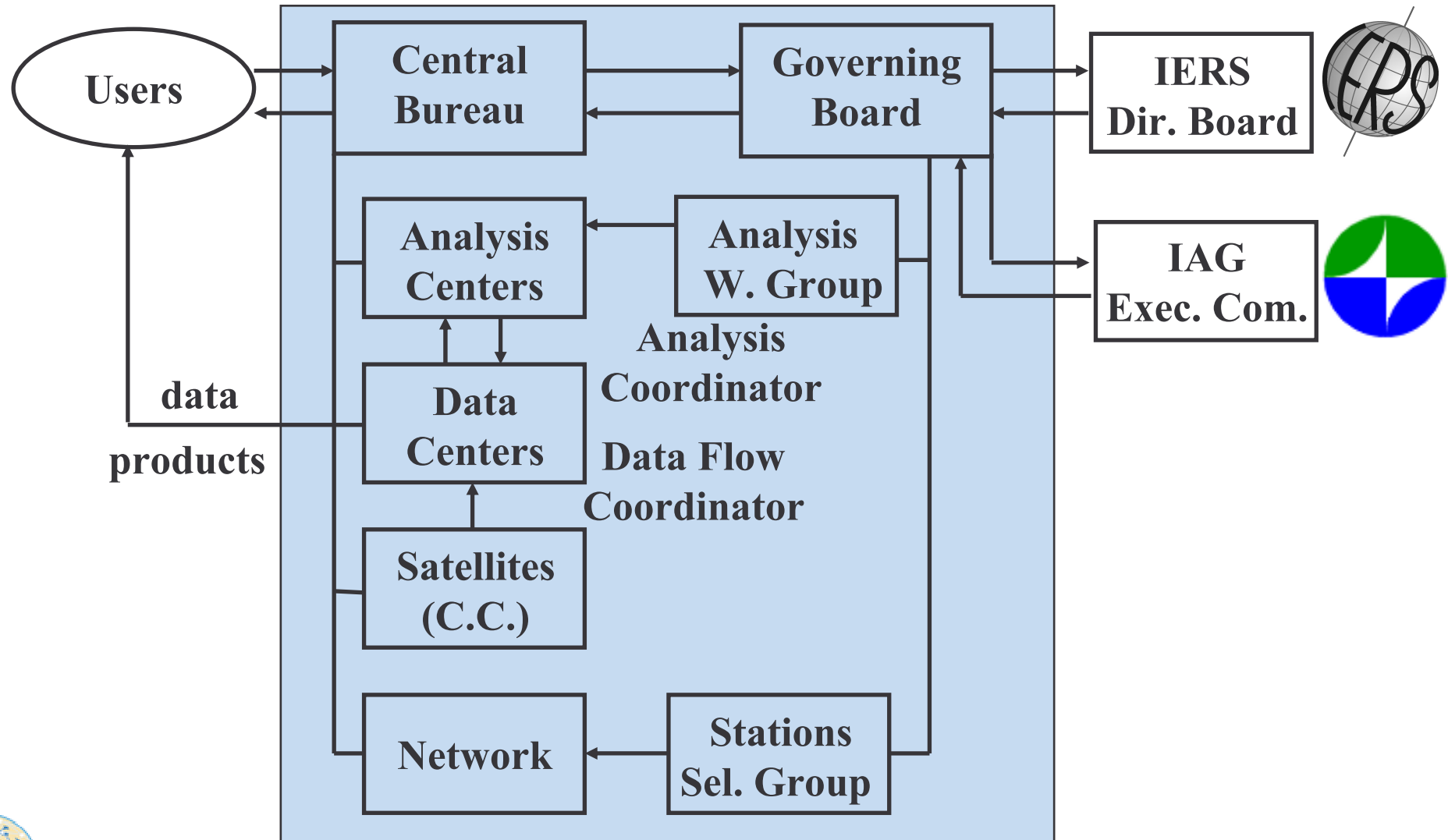
- ➔ **Analysis campaigns**

- ➔ **IUGG, July 2003, Sapporo:**
 - **IDS accepted as an IAG service**

- ➔ **IGS + IVS + ILRS + IDS = backbone of the future International Geodetic Observing System (IGGOS)**



IDS structure



Governing Board

- ➔ **Gilles Tavernier** **CNES**
Chairperson
- ➔ **Martine Feissel-Vernier** **Paris Observatory and IGN**
Analysis coordinator
- ➔ **Frank Lemoine** **NASA GSFC**
Stations Selection Group Chairperson
- ➔ **Carey Noll** **NASA GSFC**
Data Flow coordinator
- ➔ **John Ries** **University of Texas CSR**
- ➔ **Laurent Soudarin** **CLS**
Central Bureau Web server
- ➔ **Pascal Willis** **IGN / JPL**



Central Bureau

➔ CNES/IGN/CLS

- Jean-Pierre Granier, Gilles Tavernier
- Laurent Soudarin, Jean-Jacques Valette
- Hervé Fagard, Pascal Willis

➔ Website :

- <http://ids.cls.fr>

➔ DORIS Mails

- <http://list.ensg.ign.fr/www/arc/dorismail>



**INTERNATIONAL
DORIS
SERVICE**



IDS Analysis campaigns

- ➔ **Analysis coordination : Martine Feissel-Vernier PO IGN**
 - Analysis coordination page: <http://lareg.ensg.ign.fr/IDS/>

- ➔ **2002 Analysis campaign**
 - time series of stations coordinates
 - Earth orientation parameters
 - Geocenter
 - Orbits

- ➔ **2003 Grace Analysis campaign**



Data flow coordination

Data Centers

➔ Data flow coordination : Carey Noll NASA GSFC

➔ Data Centers :

- ❖ preprocessed DORIS measurements from 7 satellites
- ❖ ancillary data
- ❖ Analysis Centers products

● **NASA GSFC CDDIS - USA**

Carey Noll

- ❖ http://cddisa.gsfc.nasa.gov/doris_summary.html
- ❖ <ftp://cddisa.gsfc.nasa.gov/pub/doris/>



● **IGN LAREG - France**

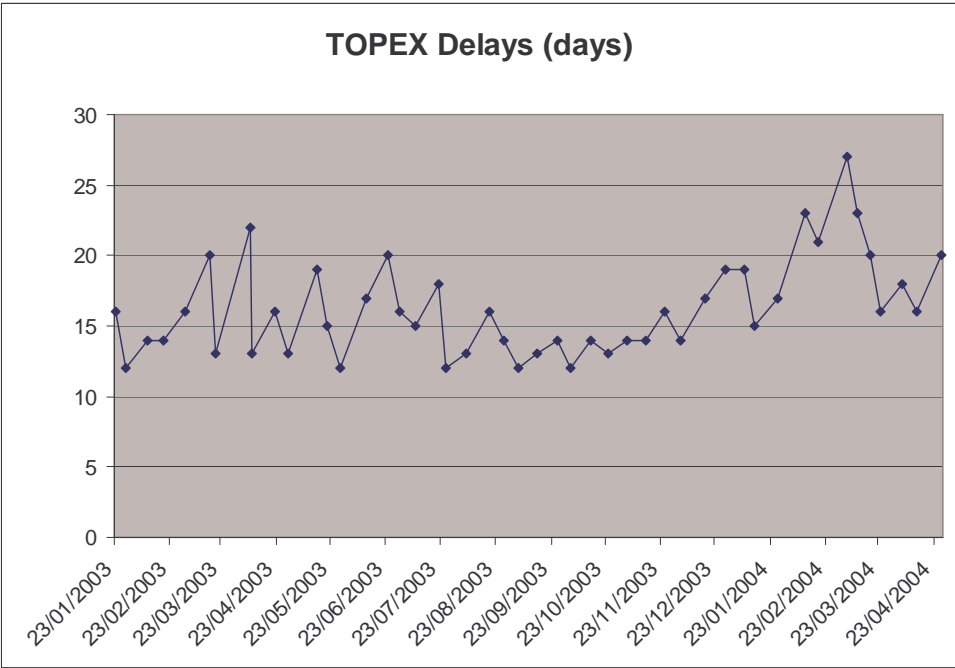
Edouard Gaulué

- ❖ <ftp://lareg.ensg.ign.fr/pub/doris/>

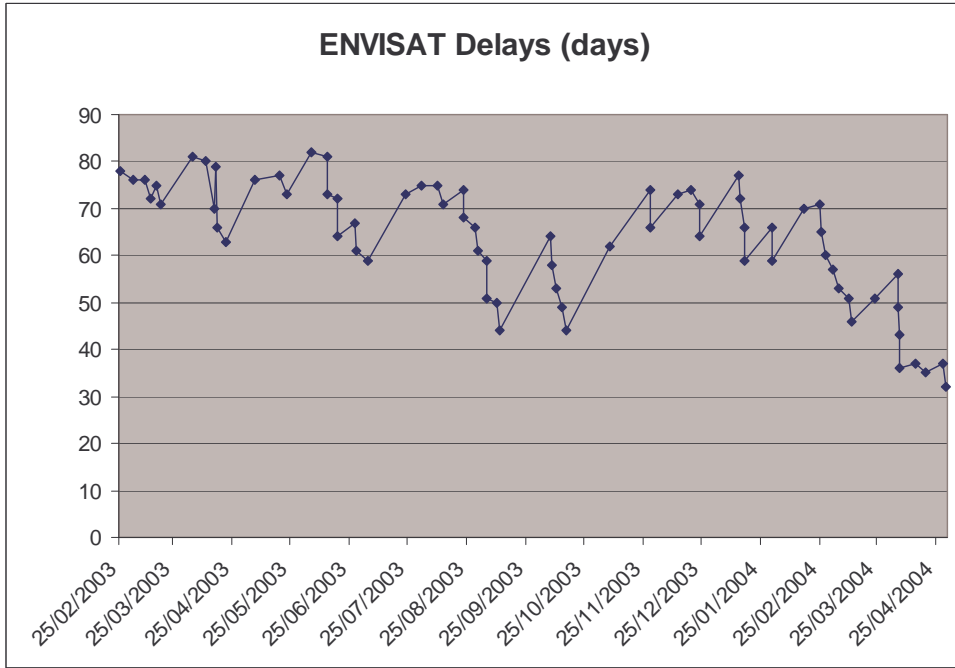


Data delivery delays

TOPEX Delays (days)



ENVISAT Delays (days)



Stations Selection Group

- ➔ **Frank Lemoine GSFC (Kristine Larson Univ. of Colorado)**
- ➔ **Geoscience Australia Ramesh Govind**
 - Sorsdal glacier, Antarctica: Dec. 2001- Jan. 2002, January 2004
 - Lambert glacier , Antarctica: January 2003
 - Burnie: permanent altimeter calibration site in Bass Strait
- ➔ **BKG - Wettzell W. Schlüter, H. Hase**
 - Wettzell: fundamental geodesy, May 2003
 - TIGO-Conception: fundamental geodesy
- ➔ **TU Crete S. Mertikas**
 - Gavdos Island: permanent altimeter calibration site, September 2003
- ➔ **IAA/AWI J.L. Hormaechea, H. W. Schenke**
 - Belgrano II, Antarctica, February 2004



Meetings

- ➔ **DORIS Days, Toulouse, May 2-3, 2000**
 - http://ids.cls.fr/html/report/doris_days_2000/programme.html

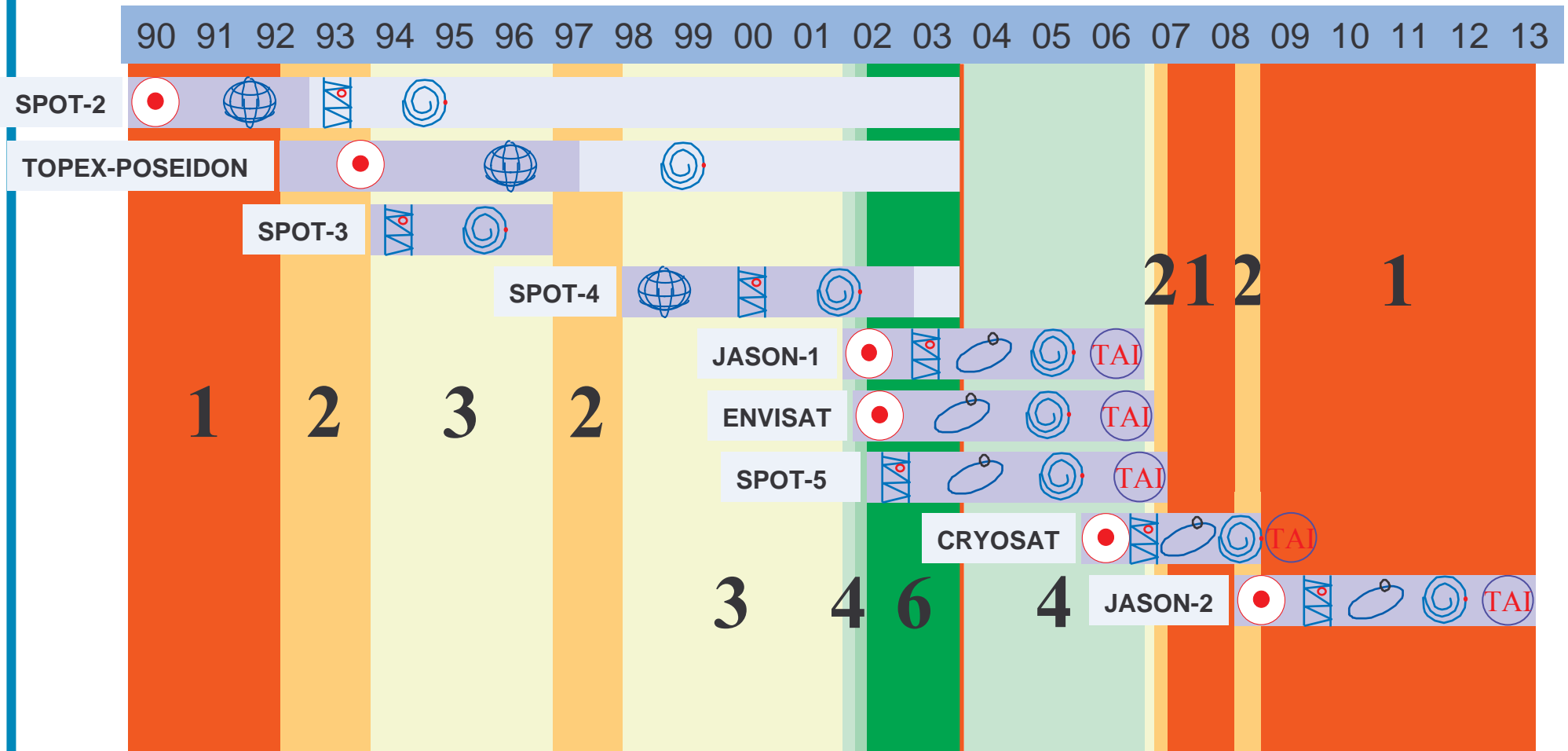
- ➔ **IDS Workshop, Biarritz, June 13-14, 2002**
 - http://ids.cls.fr/html/report/ids_workshop_2002/programme.html

- ➔ **IDS Analysis Workshop, Marne La Vallée, February 20-21, 2003**
 - http://lareg.ensg.ign.fr/IDS/events/prog_2003.html

- ➔ **IDS Plenary Meeting, Paris, May 3-4, 2004**
 - http://lareg.ensg.ign.fr/IDS/events/prog_2004.html



IDS tomorrow: Satellites



IDS tomorrow: Stations

➔ System limitations

- **Stations jamming**
- **Shifted frequencies**
 - ◆ 3.0 beacons
 - ◆ 2nd generation receiver : Jason-1, ENVISAT (SPOT5)
- **Uplink**
 - ◆ 1 channel: SPOT2, TOPEX/POSEIDON, SPOT-4
 - ◆ 2 channels: Jason-1, ENVISAT, SPOT-5 (CRYOSAT)
 - ◆ 6 channels: 2GXX receivers

➔ Limited amount of available beacons

- **5 3.0 beacons available for IDS**
 - ◆ Wetzell/TIGO
 - ◆ GAVDOS



IDS tomorrow: Analysis

- ➔ **At least 3 Analysis Centers for each product**
 - Comparison
 - Combination

- ➔ **IERS Pilot Project**
 - Time series of station coordinates and polar motion
 - Regular delivery
 - Delay

- ➔ **Which products?**
 - Time series of stations coordinates/Earth orientation parameters
 - Geocenter
 - Orbits
 - Ionosphere, troposphere



IDS tomorrow: Meeting

➔ Proposal for an IDS Meeting:

- In association with the Jason-1 SWT
- Fall 2005
- Location to be defined

