



International DORIS Service and analysis

2 Data centers at CDDIS and IGN (ftp://cddisa.gsfc.nasa.gov/pub/doris/)

Available DORIS data:

- SPOT2 (since 1992), SPOT3 (1994-96), SPOT4 (since 1998)
- TOPEX/POSEIDON (since 1993)
- new dual-channel instruments
- JASON (2002), SPOT5 (2002) and ENVISAT (soon)

10 Analysis Centers

The Analysis coordinator : Martine Feissel (<http://lareg.enspg.ign.fr/IDS/>)

The Central Bureau permanent and operational information (ftp://ftp.cls.fr/pub/ids/)

Last events :

IDS workshop, June 2002, Biarritz, France (reports on <http://ids.cls.fr>)

JASON-1 SWT meeting, October 2002, New Orleans, Louisiana USA

2002 IDS Analysis Campaign : objectives and materials

Objectives : initially to compare of station coordinates data sets

Materials : CATREF IGN/LAREG combination software (Z. Altamimi and P. Sillard)
call for participation and submitted solutions (ftp://cddisa.gsfc.nasa.gov/pub/doris/products/)

Analysis Center (Software)	Data Span	Solution*	Satellites	Constraints
IGN-JPL (GIPSY/OASIS)	1993-2001	w/m	Spot2/3/4 Topex	Minimum
INASAN (GIPSY/OASIS)	1999-2001	w	Spot2/3/4 Topex	Minimum
LEGOS-CLS (GINS-DYNAMO)	1993-2001	m/g	Spot2/3/4 Topex	Loose (1 m)
[CSR (UTOPIA)	2002	m	Topex - Jason	prepared but not submitted]
<u>for operational use, calculation within a week delay</u>				
SOD (ZOOM)	June 2001	w	Spot2/3/4 Topex	Loose (1-10m)
SSALTO (fixed CNES/MOE orbits) since Jan.2001	w/m	Spot2/4 Topex/Jason		Non removable

* w : week, m : month, g : global

Combination strategy : minimum constraints

Inputs : 2 IGN-JPL and LEGOS/CLS sinex series of multi-satellites montly solutions
1993-2001 data span, solutions at observation dates
DORIS low residuals sub-network ITRF2000 solution

1/ Outliers edition

2/ Variance matrix projection of loose constraint LEGOS/CLS solutions (Reference System effect)

3/ 7 parameter transformation and variance estimation

Outputs : sinex of combined positions at date of median data span and velocities,
expressed in ITRF2000

IDS Analysis Campaign : current combination activity

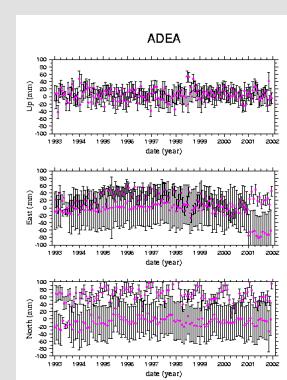
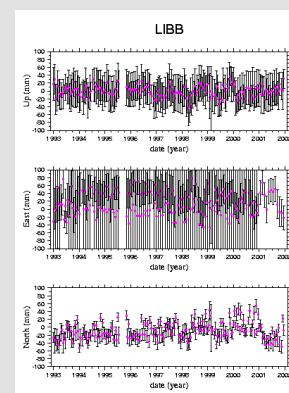
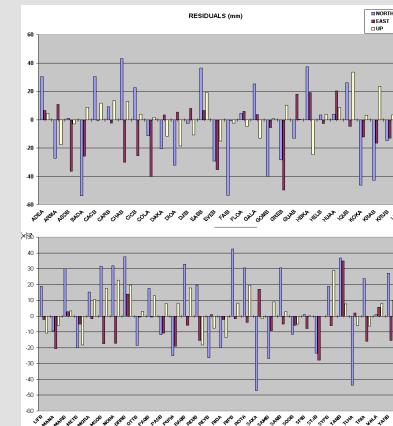
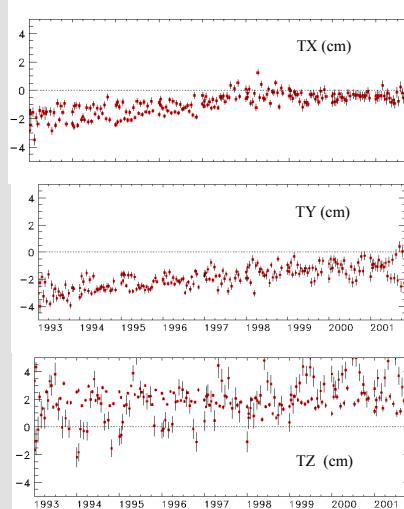
J.J. Valette, L. Soudarin (CLS)
Zuheir Altamimi (Lareg/IGN)

<http://ids.cls.fr>

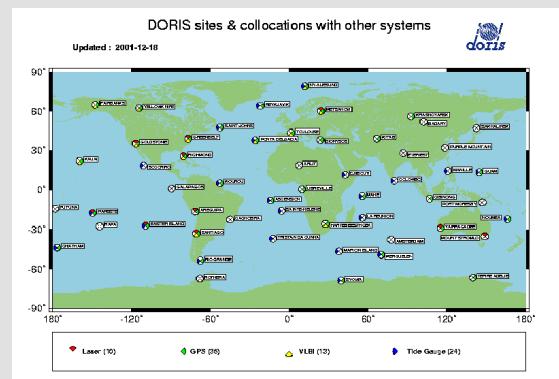
Preliminary (bad!) TRF combination results



Transformation parameters after combination
IGN/JPL and LEGOS/CLS monthly time series



**Strong remaining residuals, inconsistent scale factors,
not an optimized combination!**



Future IDS combination activity

/ Work in hand:

- investigation of the incoherent first combination results
- quality indicators analysis, iterations, refined outliers edition...
- constraint for antenna position changes at the same site

/ Other analysis groups :

- Peenya Geodetic Observatory (Czech Republic, Bernese?)
- IAA-RAS (Russia, owner software)
- Auslig (Australia, Microcosm software)

/ Others periodic solutions : week solutions

/ Graphics and statistics outputs (time series,...)

/ Analysis extension to EOP and Geocenter (CATREF new capabilities)

/ Validation process for the IDS combined solution

/ Regular production and IERS participation

Next IDS Analysis workshop

Feb. 2003, LAREG, Marne-La-Vallée, France