



**INTERNATIONAL
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International DORIS Service: Product and Service Status

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Introduction

- Station renovation has substantially improved the DORIS network since its inception in the 1990's. New requirements for station quality and monument stability that are quite stringent (Power availability, visibility path).
- Multiple groups contribute products on a regular basis:
IGN/JPL, INASAN, LEGOS/CLS, SSALTO.
- New Analysis Center: GOP (Geodetic Observatory Pecný).
- Other associate or candidate AC's: IAA, Geoscience Australia, UNC-action item, ESOC is interested in becoming analysis center)



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Map of Current DORIS Network



GGOS Working Group on Ground Networks WG, San Francisco, California, U.S.A., December 12, 2007



Network Status

- Riyadh as candidate DORIS station: Outlook positive. Jamming studies completed. Agreement in hands of IGN lawyers.
- Tamanarsset (Algeria), is also a candidate DORIS site, approved by IDS GB, with permanent GPS (not IGS site). Agreement held up at high levels in Algeria.
- Adak, Aleutians: This file is still open. A station here would fill a big hole in the DORIS network - and provide a DORIS-tide gauge collocation. Contacts made with UNAVCO/Anchorage office and some progress made. The more stringent CNES requirements are making convergence more difficult.
- Midway Island: No progress. Logistics and cost are prohibitive. Unfortunate - since tide gauge has a long time history - and islands in the Pacific are few and far between.



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Future DORIS Missions (decided)

- **JASON-2 (CNES-NASA-EUMETSAT-NOAA)**
 - *June 2008*
 - *T2/L2 (Laser Time Transfer Link), Carmen & JTD (radiation dose)*
- **CRYOSAT-2 (ESA)**
 - *March 2009*
- **SARAL/ALTI-KA (CNES-ISRO)**
 - *ISRO SSB platform with ALTIKA & ARGOS 3 payload*
 - *end 2009-beginning 2010 ?*



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Future DORIS Missions (possible)



- **SENTINEL 3**

- =>European GMES programme, ESA mission

- =>*CNES proposal for a DORIS receiver*

- =>2010 ?

- =>*Possible proposals for other ESA missions*

- **Jason-3**

- =>*Jason-2 follow-on*

- =>*GMES programme 2012-2013 ?*

- **HY-2A (CNES-CNSA)**

- =>*Altimeter, DORIS, GPS, LRA*

- =>2010 ?

- **CEMIT (Small Explorer Missions proposal)**

- =>*Possible CNES contribution: STAR accelerometer, DORIS*

- =>2012 ?



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DORIS TRF Scale Differences From Previous Solutions (DORIS ITRF2005 contributions)

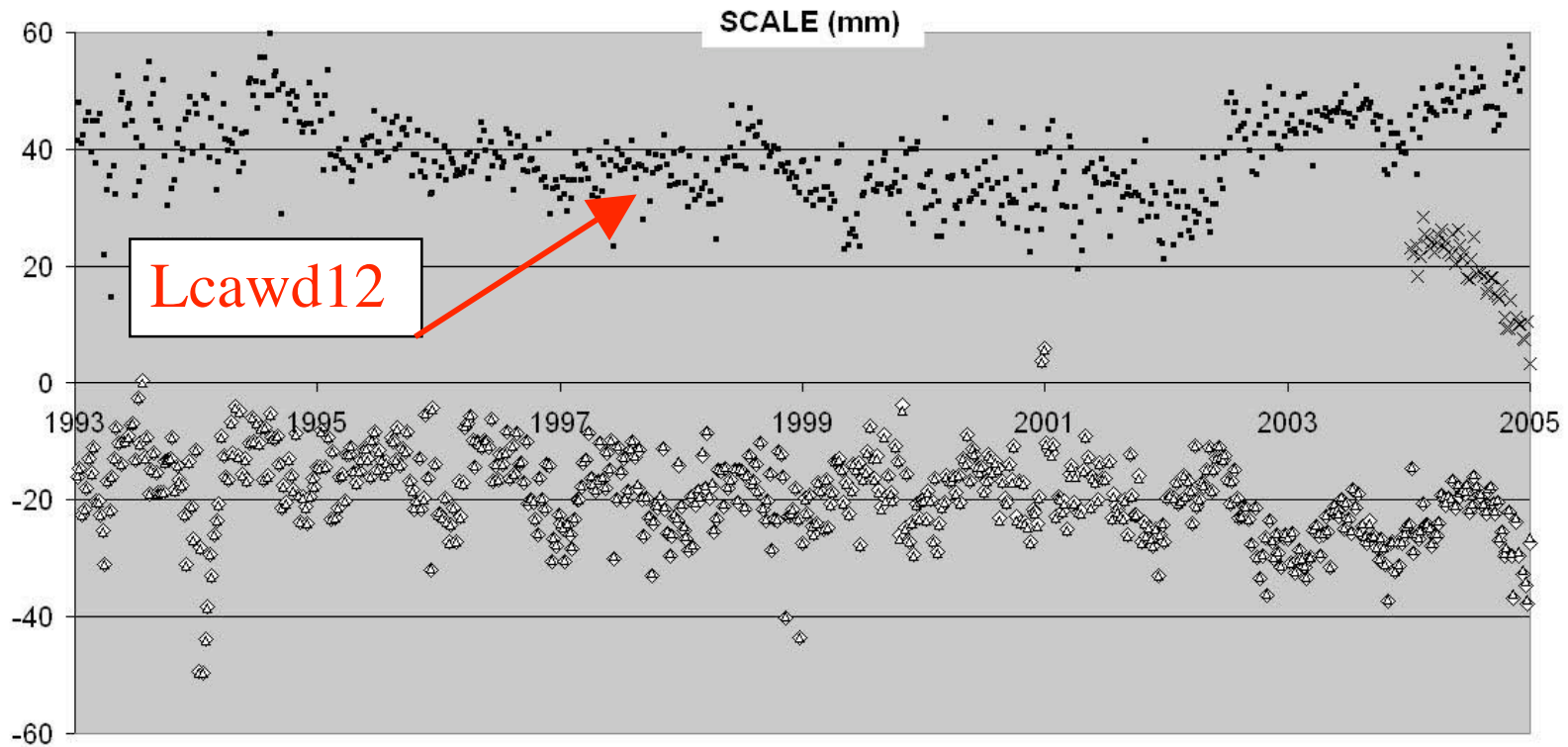


Figure 11: Scale factor of the individual weekly time series combinations from *Tavernier et al. (2006)*. IGJ/JPL (diamonds); LEGOS/CLS (black dots); GSFC (crosses).



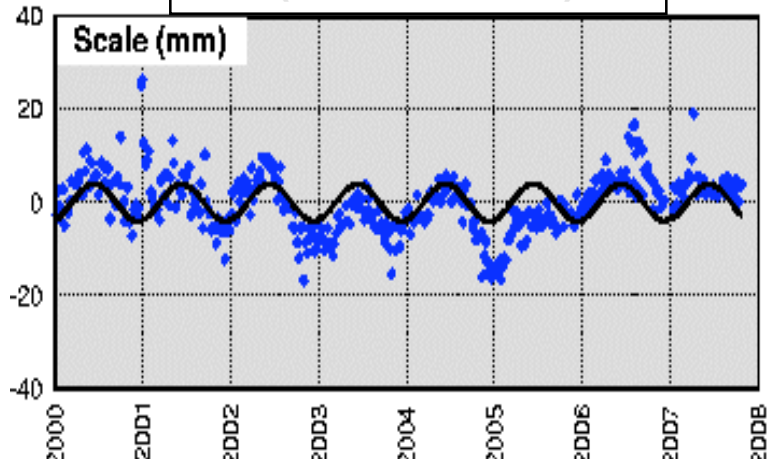
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DORIS TRF Scale from new series

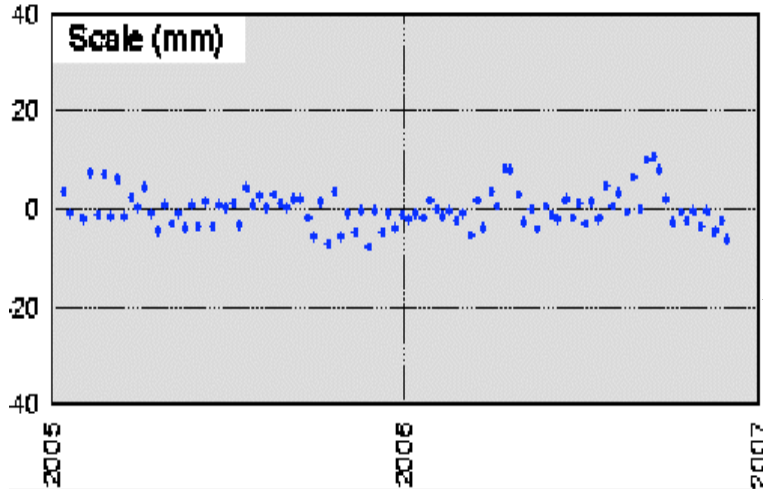
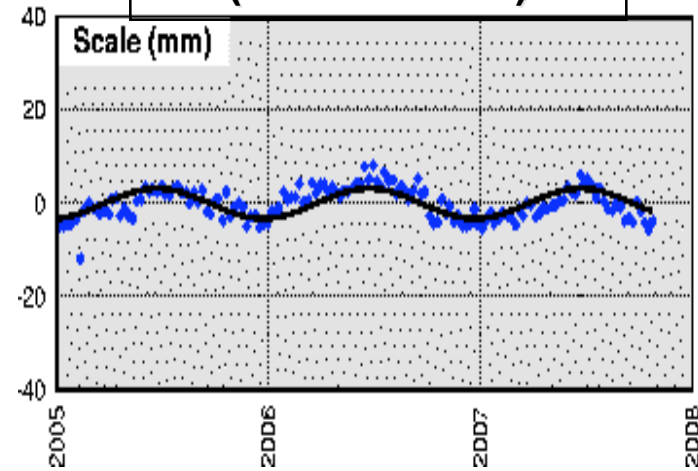
(Valette et al., AGU 2007)



**IGN 2000-2007
(wd05 series)**



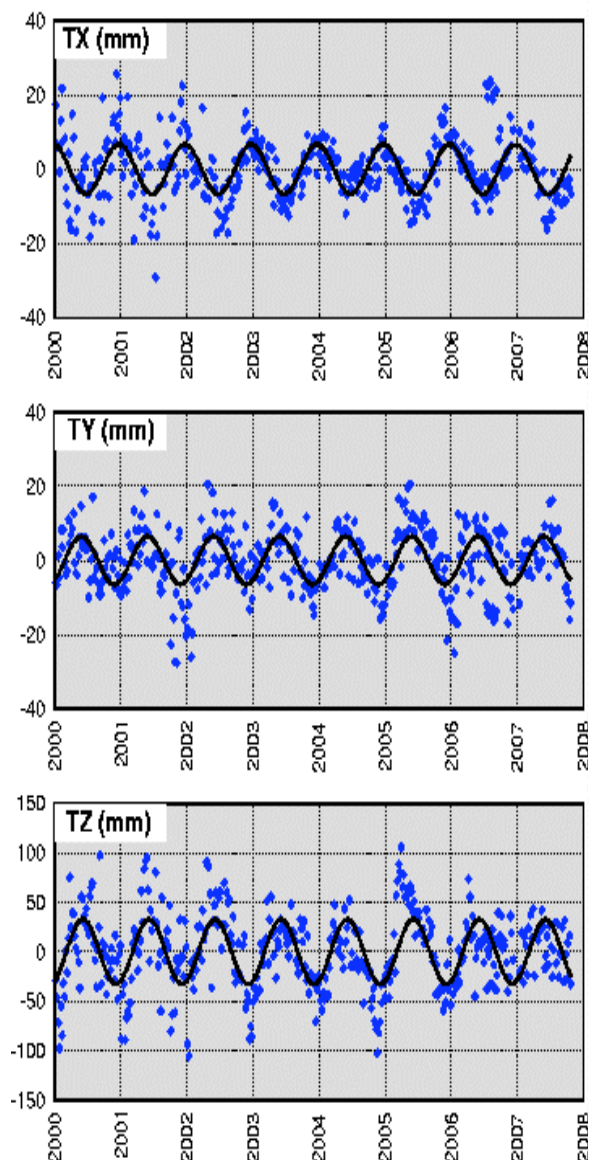
**LCA 2005-2007
(wd18 series)**



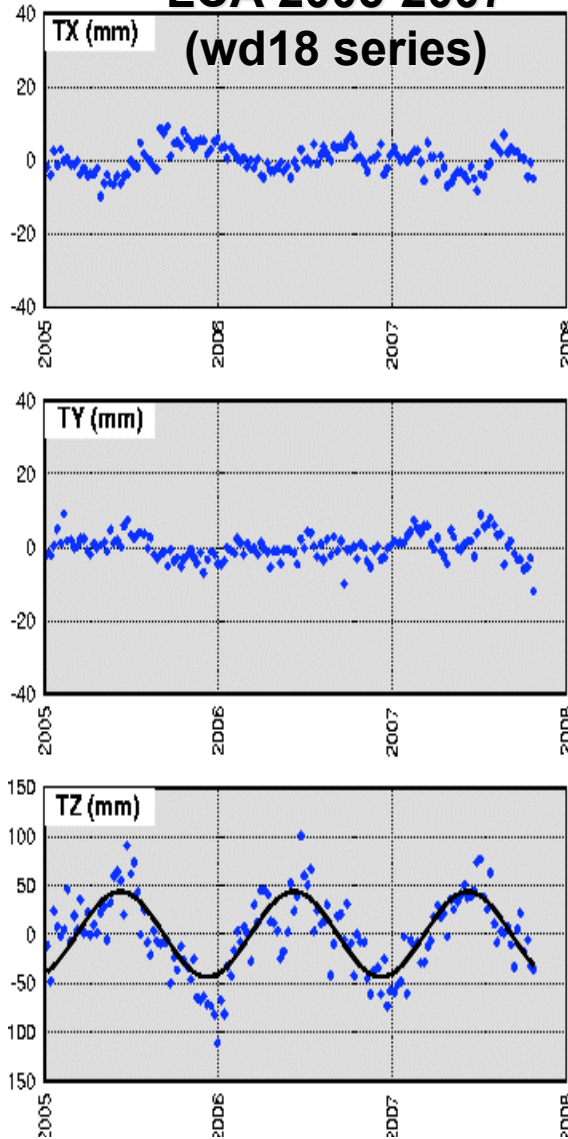
**GOP 2005-2007
(wd03 series)**

New IDS AC Solutions (AGU2007)

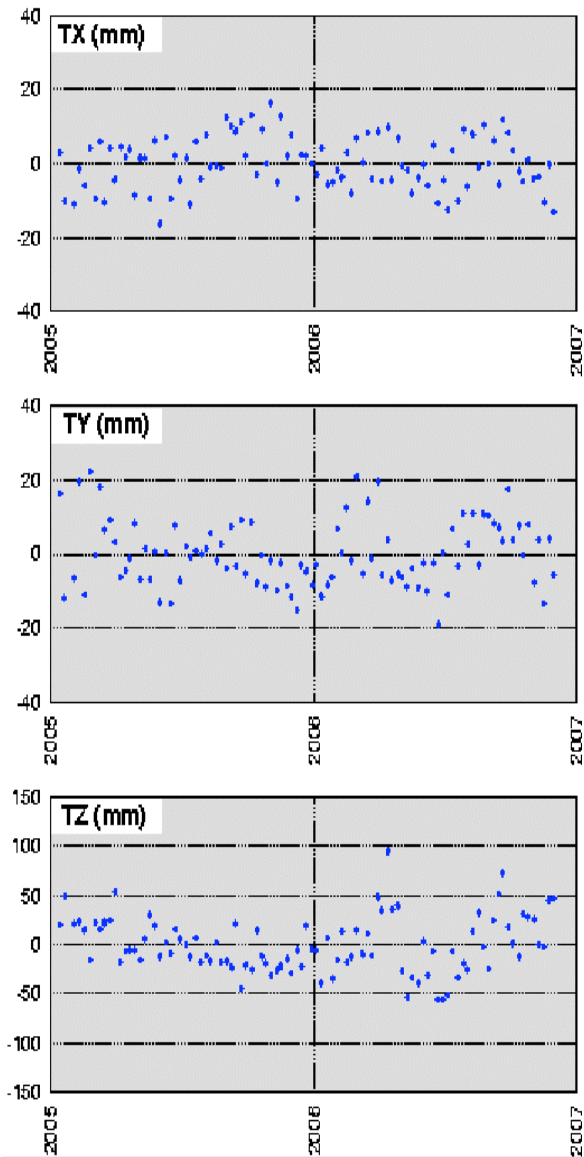
IGN 2000-2007 (wd05 series)



LCA 2005-2007 (wd18 series)



GOP 2005-2007 (wd03 series)





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New AC Comparisons with ITRF2005

(Valette et al., AGU 2007)



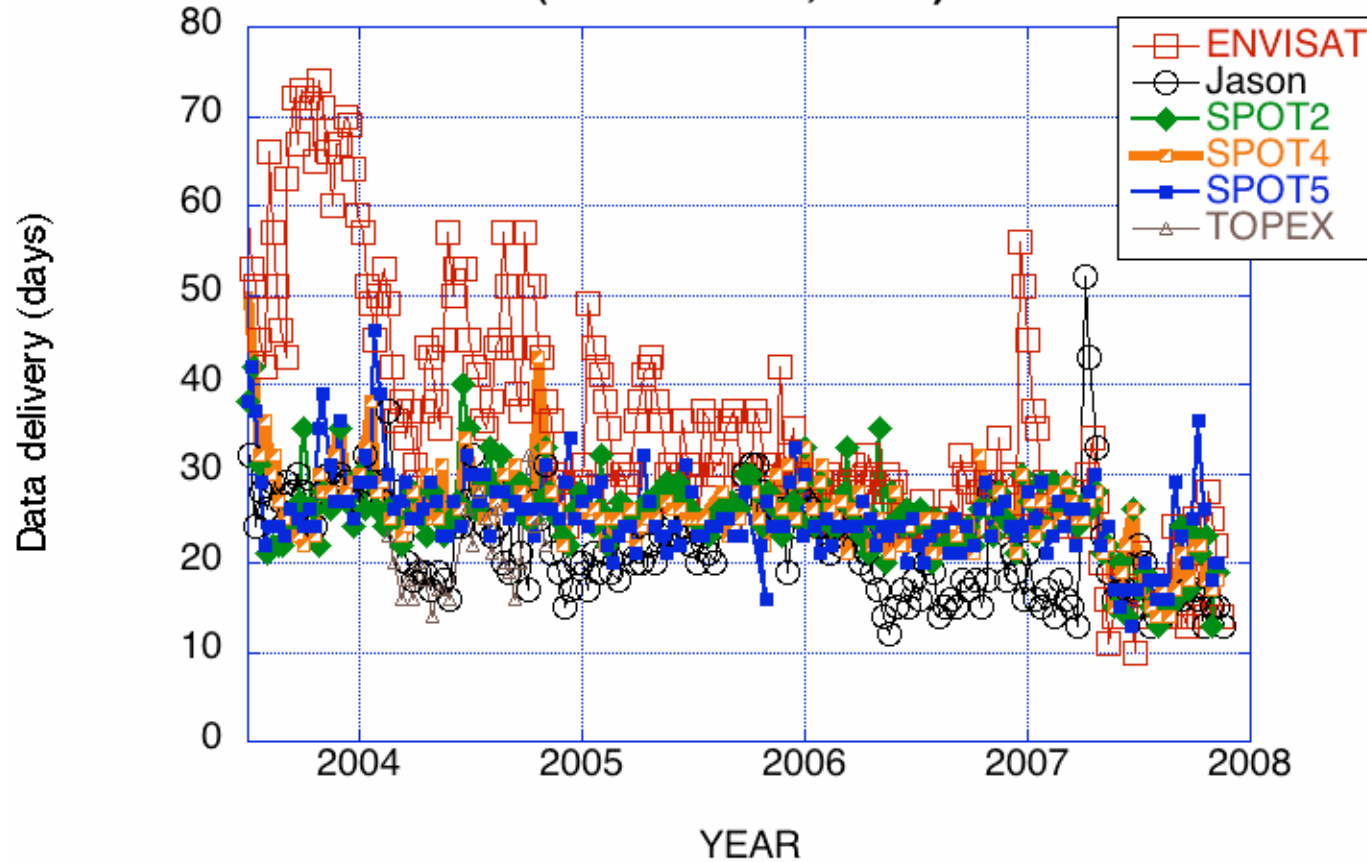
ITRF2005 comparisons	Pos (mm)	Vel (mm/yr)
IGN (7 yrs)	6.5	2.0
LCA (2 yrs)	15.6	4.0
GOP (2 yrs)	11.1	7.1
Combined solution	7.0	5.7



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DORIS data delivery at NASA/CDDIS (December 3, 2007)





Other Items

- IDS web site updated by Central Bureau (Laurent Soudarin).
Check it out <http://ids.cls.fr/>
No of visits vastly increased - Includes Google Earth map of Stations.
- Analysis Working Group Meeting, Paris or Toulouse in March?
The purpose is to plan the DORIS contribution to the next ITRF.
- CNES working group meeting to reflect on future of DORIS.