



IDS Central Bureau Report

Greenbelt, 2015/10/16





What's new?



■ Data

- issue about the initial values of CoM
- description of SARAL's maneuvers with 3 thrusts instead of 1 in the maneuver file srlman.txt

■ Products

- delivery of GDR-E orbits

■ Website

- 3D satellite animations and new page « Missions » (in progress)
- new tables of Data and Products
- new page Documentation
- IDS Workshop and AWG presentations on one page
- new table members of Governing Board

■ Webservice

- new EOTool

■ Ftpsite

- lists of Earthquakes, discontinuities ITRF2008, evolution of Constellation

■ Other: check ACs summaries



Initial values of CoM in *satmass.txt* files



- CNES/SOD has adopted new values for SARAL (see document POE Models)
- CNES suggests to remove initial values in header (AWG telecon 2015/09/24) instead of to change the values
- ACs need an easy way to get the initial values for the data processing (ie not in a document)
- IDS BC proposes to remove initial values in the header of the the *satmass.txt* files and to create a new file with the list of initial values
 - + this file contains only one type of data: the initial values
 - + the *satmass.txt* files will contain only one type of data: the variations
 - datas into two separate files

■ Proposals:

[satmass.txt](#)

[MassCoMInitialValues.txt](#)

(see LS'email to AWG, 2015/08/19)

- CNES proposes to describe SARAL's maneuvers with 3 thrusts instead of 1 in the maneuver file srlman.txt
- The objective is to take into account the new strategy defined by ISRO to perform SARAL attitude control
- The format of the maneuver files allows this possibility (<ftp://ftp.ids-doris.org/pub/ids/satellites/man.readme>).
- The first and the third burns will only give the date of the yaw rotations. Corresponding thrust values will be null. Duration should be 0 but 1 or 2 ms will be preferably introduced.

→ AWG consulted; no negative opinion is expressed



SARAL's 3-thrust record



■ SARAL 2015 223 12 24 2015 223 12 43 006 3 2015 223 12 24 32.000
02.000000000000e-03 00.000000000000e+00 00.000000000000e+00
00.000000000000e+00 00.000000000000e+00 00.000000000000e+00
00.000000000000e+00 00.000000000000e+00 00.000000000000e+00
00.000000000000e+00 2015 223 12 33 33.697 02.908000000000e+00
00.000000000000e+00 -2.500000000000e-02 00.000000000000e+00
00.000000000000e+00 -8.5969738651995e+03 00.000000000000e+00
00.000000000000e+00 00.000000000000e+00 00.000000000000e+00
2015 223 12 43 36.000 02.000000000000e-03 00.000000000000e+00
00.000000000000e+00 00.000000000000e+00 00.000000000000e+00
00.000000000000e+00 00.000000000000e+00 00.000000000000e+00
00.000000000000e+00 00.000000000000e+00

Sp3 orbits in the new GDR-E standards flagged with a version number VV=10 in the file name

- **Cryosat-2 orbits in GDR-E standards available for the whole mission**
- **Jason-1 POE orbits reprocessed and available for the whole mission**
- Jason-2 POE orbits switched to the GDR-E standards from cycle 254.
Saral POE orbits switched to the GDR-E standards from cycle 25.
- HY-2A POE orbits will switch to the GDR-E standards at a later stage.
Envisat POE orbits will be reprocessed at a later stage.
- Spot-5 POE orbits will be kept in the GDR-D standards and the past Spot satellites orbits will not be reprocessed.
- Jason-3 POE orbits will be produced in GDR-E standards from cycle 1.

Previous series moved to subdirectories GDR-C and GDR-D

Cryosat-2, Jason-1: only GDR-E orbits in the current directory

See file [doris/products/orbits/ssa/README_SP3.txt](#)



3D satellite animations



Objective: Propose pedagogical materials to visualize the DORIS satellites in orbit

**VTS + satellite 3D models + orbits, quaternions, SA angle
→ 2D and 3D visualizations → animations (.avi)**

Some demos (work in progress):

[DORIS constellation](#)

[Jason-2 flip](#)

[Jason-2 Ramp Down](#)

[SARAL](#)

[HY-2A](#)

[CRYOSAT-2](#)

[SPOT-5](#)

ENVISAT

Data table

data	latency	sample interval	archive locations	format	missions
preprocessed data	3-4 weeks	7 or 10 days	CDDIS / IGN	DORIS 1.0 (before January 2002), DORIS 2.1, DORIS 2.2 (since June 2008)	cs2, en1, h2a, ja1, ja2, sp2, sp3, sp4, sp5, srl, top
raw data	2 days	1 day	CDDIS / IGN	RINEX/DORIS	cs2, h2a, ja2, srl
SAA-corrected data	quarterly	7 or 10 days	CDDIS / IGN	DORIS 2.2	ja1, sp5
quaternions	1 day ~1 month	< 1 min 30 s	CDDIS / IGN TU Delft	cnes tudelft	ja1, ja2 cs2
mass history	1 day - 1 month (*)	(*)	IDS CB	mass	all missions
maneuvers	1 day - 1 month (*)	(*)	IDS CB	man	all missions
attitude	1 day	(*)	IDS CB	att	en1, ja1, ja2, top

(*) according to the mission

Product table

products	content	latency	sample interval	archive locations	format	provider	missions
station coordinates	time series of station coordinates differences	quarterly	1 week	CDDIS / IGN	stcd	IDS CC, ACs	combination
orbits	orbit ephemerides	3-4 weeks	1 min	CDDIS / IGN	sp3c	ssa (official orbits), ACs	all satellites
geocenter motion	TRF origin solution	occasionally	1 week	CDDIS / IGN	geoc	ACs	combination
Earth Orientation Parameters	polar motion	occasionally	1 day	CDDIS / IGN	eop	ACs	combination
ionosphere	ionospheric corrections	week	10 s	CDDIS / IGN	iono	ssa	en1, ja1, sp2, sp4, sp5, top
reference frame	station coordinate and velocity solution	yearly	global	CDDIS / IGN	sinex	CC	combination
SINEX	series of station coordinate solutions	quarterly	1 week	CDDIS / IGN	sinex	IDS CC, ACs	combination



DOCUMENTATION



DORIS system components

About the DORIS system (on website AVISO+)

[Principle](#)

[DORIS System](#)

[DORIS applications](#)

[DORIS missions](#)

About the station management

Sitelogs (logs of the DORIS sites)

[IDS Information system](#)

IDS data structure and formats

[What kind of information on what center?](#)

[File naming conventions](#)

[Data Centers structure](#)

[Formats](#)

[How to deliver products to the Data centers](#)

Data and products

Mails (information about the mailing lists)

[DORISmails](#) [List of the mails](#) [Archive](#)

[DORISreports](#) [List of the mails](#) [Archive](#)

[DORISstations](#) [List of the mails](#) [Archive](#)

[Analysis Forum](#) [List of the mails](#) [Archive](#)

Publications, presentations

List of DORIS publications in international peer-reviewed journals

Presentations at IDS meetings (presentations at IDS Workshops and Analysis Working Group meetings only)

IDS-related presentations (presentations about the Service given in international assemblies)

DORIS-related presentations (other presentations and on-line publications related to all aspects of DORIS)

Documents

Documents related to data analysis

[General](#)

[DORIS system](#)

[Space segment](#) (instrument modelling, satellite macromodels, attitude, quaternions, maneuvers, mass and gravity center history, SAA corrective model)

[Ground segment](#) (ground beacon and antenna modelling, radio-frequency characteristics, antenna phase laws, documents)

[Stations](#) (ties, frequency shift)

[Observations](#) (formats, preprocessing descriptions, POE standards)

[Analysis models](#)

[Analysis Center](#)

[Products](#) (formats)

About the DORIS/RINEX format

Documents of the Analysis Coordination (minutes of AWG meetings, recommendations, position papers)

- **Page revisited** to include the link of all the presentations in IDS Workshop and AWG meetings
(IDS > Reports & Mails > Meeting presentations)
- The pages dedicated to each meeting will no longer contain the list of presentations but a link to this page
- **Objective:** give a broader visibility, make the search easier (author, object, date...)

Table of the Governing Board's members

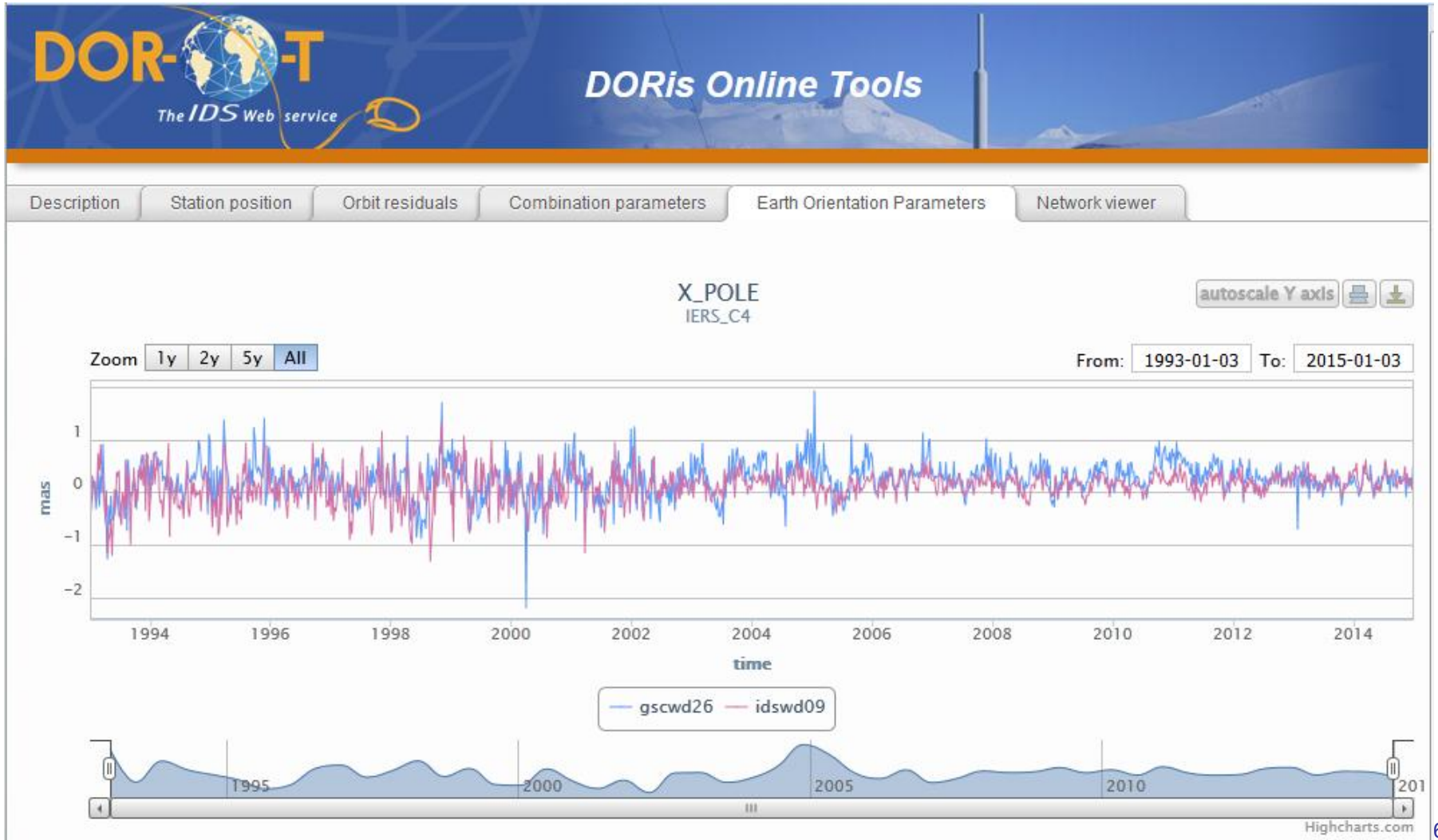
Position	Term	Status	Name	Affiliation	Country
Analysis coordinator	2015-2018	Elected	Hugues Capdeville	CLS	France
			Jean-Michel Lemoine	CNES/GRGS	
	2013-2014	Ext'd	Frank Lemoine	NASA/GSFC	USA
	2009-2012	E.b.GB	Frank Lemoine	NASA/GSFC	USA
	2005-2008		Frank Lemoine (substitute)	NASA/GSFC	USA
	2003-2005		Martine Feissel-Vernier	IGN/Paris Observatory	France
Data Centers' representative	2013-2016	Elected	Carey Noll	NASA/GSFC	USA
	2009-2012	Elected	Carey Noll	NASA/GSFC	USA
	2003-2008		Carey Noll	NASA/GSFC	USA
Analysis Centers' representative	2013-2016	Elected	Pascal Willis (chair)	IGN+IPGP	France
	2009-2012	Elected	Pascal Willis (chair)	IGN+IPGP	France
	2003-2008		Pascal Willis	IGN+IPGP	France
Member at large	2015-2018	Elected	Marek Ziebart	UCL	UK
	2013-2014	Ext'd	John Ries	University of Texas/CSR	USA
	2009-2012	E.b.GB	John Ries	University of Texas/CSR	USA
	2003-2008		John Ries	University of Texas/CSR	USA
Member at large	2013-2016	Elected	Richard Biancale	CNES/GRGS	France
	2009-2012	E.b.GB	Pascale Ferrage	CNES	France
	2003-2008		Gilles Tavernier (chair)	CNES	France
Director of the Central Bureau	Since 2003	Appointed	Laurent Soudarin	CLS	France
Combination Center representative	Since 2013	Appointed	Guilhem Moreaux	CLS	France
Network representative	2013-2016	Appointed	Jérôme Saunier	IGN	France
	2010-2012		Bruno Garayt (substitute)	IGN	France
	2009	E.b.GB	Hervé Fagard	IGN	France
	2003-2008		Hervé Fagard	IGN	France
DORIS system representative	2013-2016	Appointed	Pascale Ferrage	CNES	France
IAG representative	2013-2016	Appointed	Michiel Otten	ESOC	Germany
	2009-2012	Appointed	Michiel Otten	ESOC	Germany
	2003-2008		Not designed		
IERS representative	2013-2016	Appointed	Brian Luzum	USNO	USA
	2009-2012	Appointed	Chopo Ma	NASA/GSFC	USA
	2003-2008		Ron Noomen	TU Delft	Netherlands

Elected = Elected by IDS Associates

E.b.GB = Elected by the previous Governing Board

Ext'd = Extended term for two years linked to the set up of the partial renewal process

■ EOP series from CC and ACs (analysis outputs of CC): Xp, Yp, LOD





ITRF2008 discontinuities, number of satellites, Earthquakes,



■ New files « events »:

<ftp://ftp.ids-doris.org/pub/ids/events/DiscontinuitiesITRF2008.txt>

<ftp://ftp.ids-doris.org/pub/ids/events/EvolutionOfConstellation.txt>

[ftp://ftp.ids-doris.org/pub/ids/events/GeodeticNetworks Earthquakes m6d500.txt](ftp://ftp.ids-doris.org/pub/ids/events/GeodeticNetworks_Earthquakes_m6d500.txt)

- AC summaries available in the Table on the IDS website at <http://ids-doris.org/contribution-itrf2013.html> are used as reference in several papers submitted for ASR's DORIS special issue
 - BC proposes to change the URL of the current page to [combination/contribution-itrf2014.html](http://ids-doris.org/combination/contribution-itrf2014.html) (*)
The current address can be kept as an alias for the new URL.
 - BC invites ACs to check the information given in the Table.
The table was filled in before it was decided to include year 2014 for the ITRF.
- (*) the content of [analysis-combination.html](http://ids-doris.org/analysis-combination.html) will be move to [combination/contribution-itrf2008.html](http://ids-doris.org/combination/contribution-itrf2008.html)