



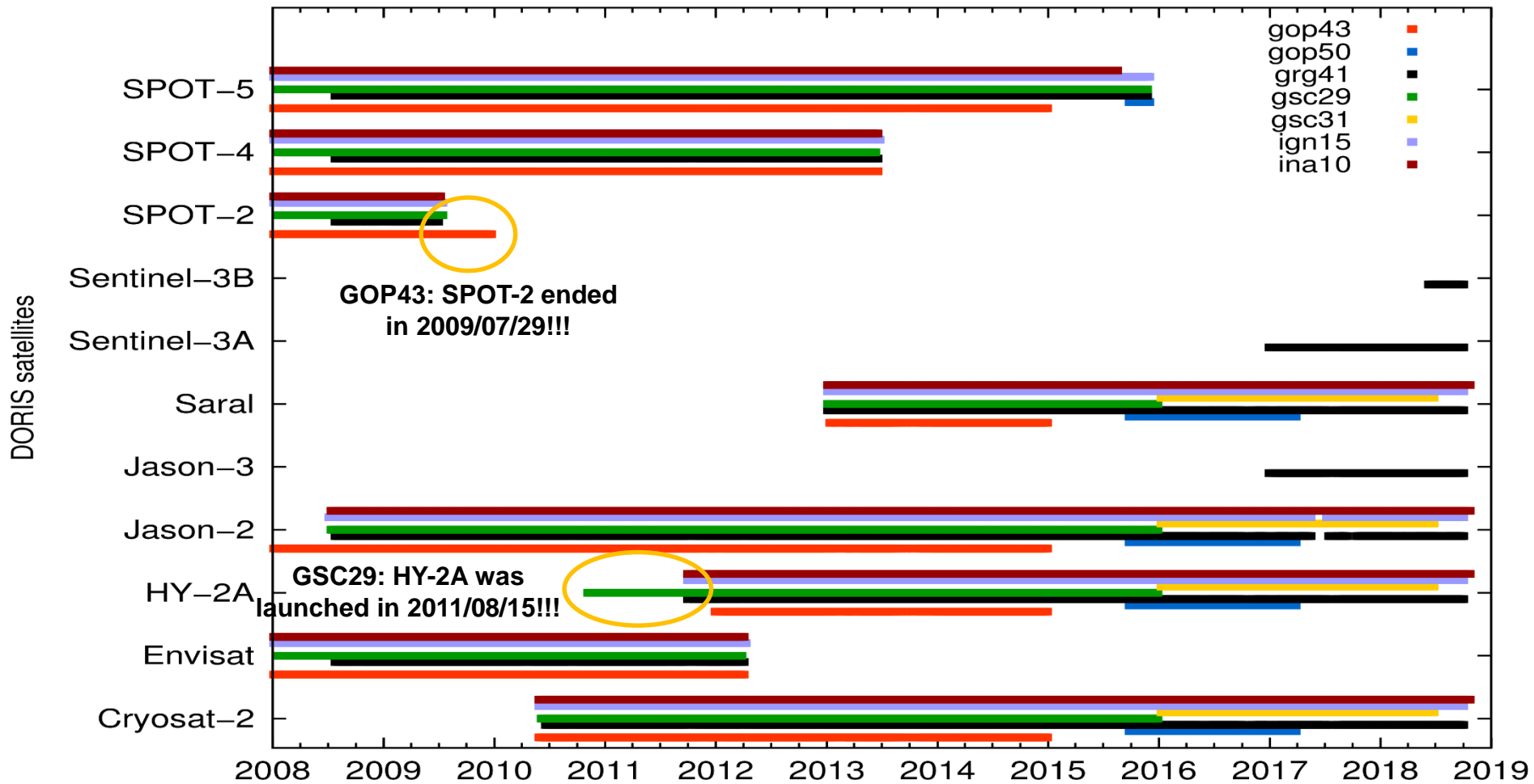
# Status of the IDS Combination Center activities

Guilhem Moreaux

# Latest Series Available

AC	Series Nb	Time period	Comments
ESA	10	1993:003 – 2015:179	2014:166 – 2014:362 missing Not available at IDS Data Centers
GOP	43	1993:003 – 2017:176	wd50: No more use of CNES preprocessing indicators and downweighting of the observations wd51 = wd50 + cross track in onboard modeling wd52 = wd51 + phase center offset form nominal macromodel
	50	2015:270 – 2018:182	
	51	2017:365 – 2018:182	
	52	2018:084 – 2018:182	
GRG	40	1993:003 – 2017:274	wd41: new DORIS data processing, Jason-2 SAA strategy, new HY-2A CoM-CoP value, <b>Jason-3</b> (SAA strategy, since 2016:045) + <b>Sentinel-3A</b> (since 2016:066)
	41	2008:209 – 2018:273	
GSC	28	2008:195 – 2016:360	Modeling improvements on Jason-2 solar array (quaternions) wd29 = wd28 with DPOD2014 as apriori wd30 = wd29 + <b>Jason-3</b> (no special handling for SAA stations) wd31 = wd29 + <b>Jason-3</b> (special handling for SAA stations) wd32 = wd31 + new version of GEODYN + new Hy2A offset
	29	2008:020 – 2017:176	
	30	2016:010 – 2017:176	
	31	2016:003 – 2018:273	
	32	2016:003 – 2018:168	
IGN	15	1993:003 – 2018:273	Since 2008:188 : without CADB, SANB and KRUB for Jason-2
INA	10	1992:292 – 2018:294	
IDS	12	1993:003 – 2018:091	ESA10 + GOP43 /50 + GRG40/41 + GSC26/28/31 + IGN15 + INA10 wd13 = wd12 – ESA 10 + new preprocessing of the AC solutions
	13	1993:003 – 2018:273	

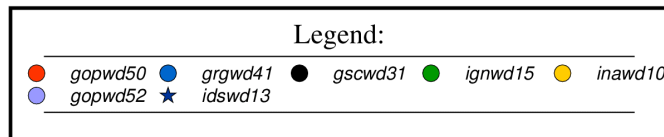
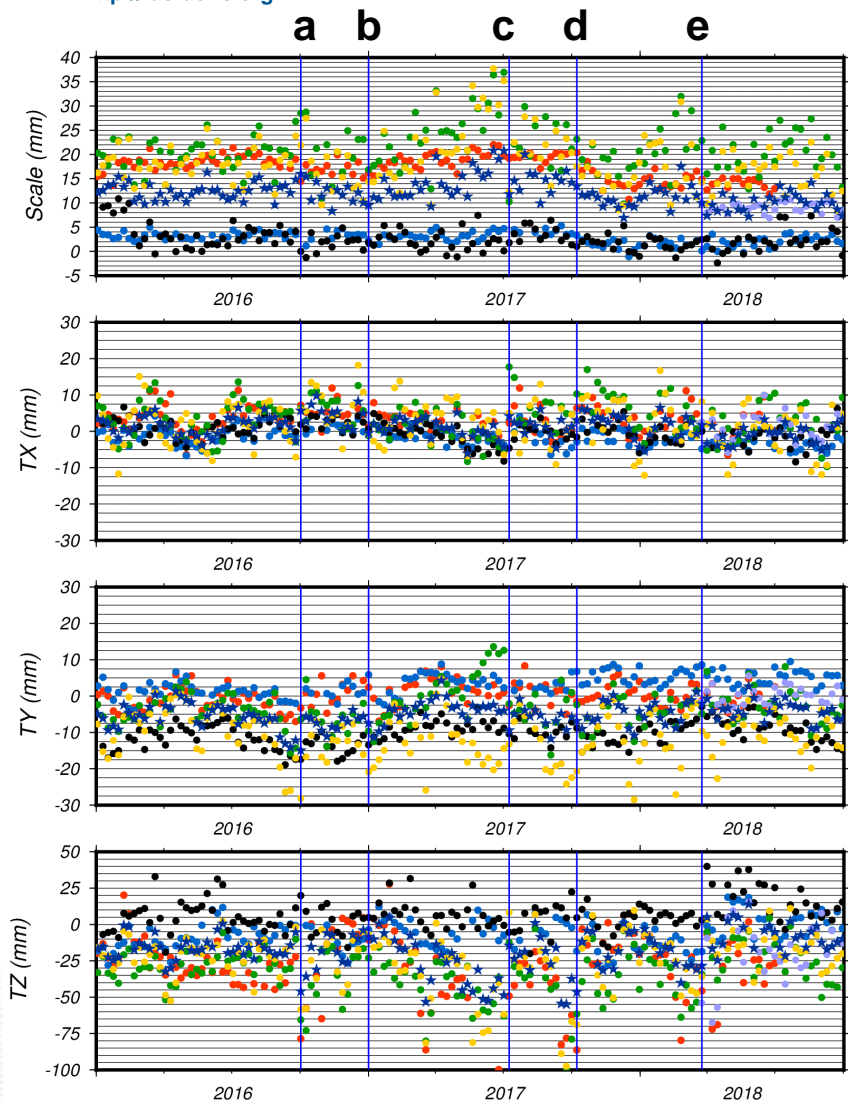
# Mission List as from SINEX files





<http://ids-doris.org>

# IDS 13 Combined Solution



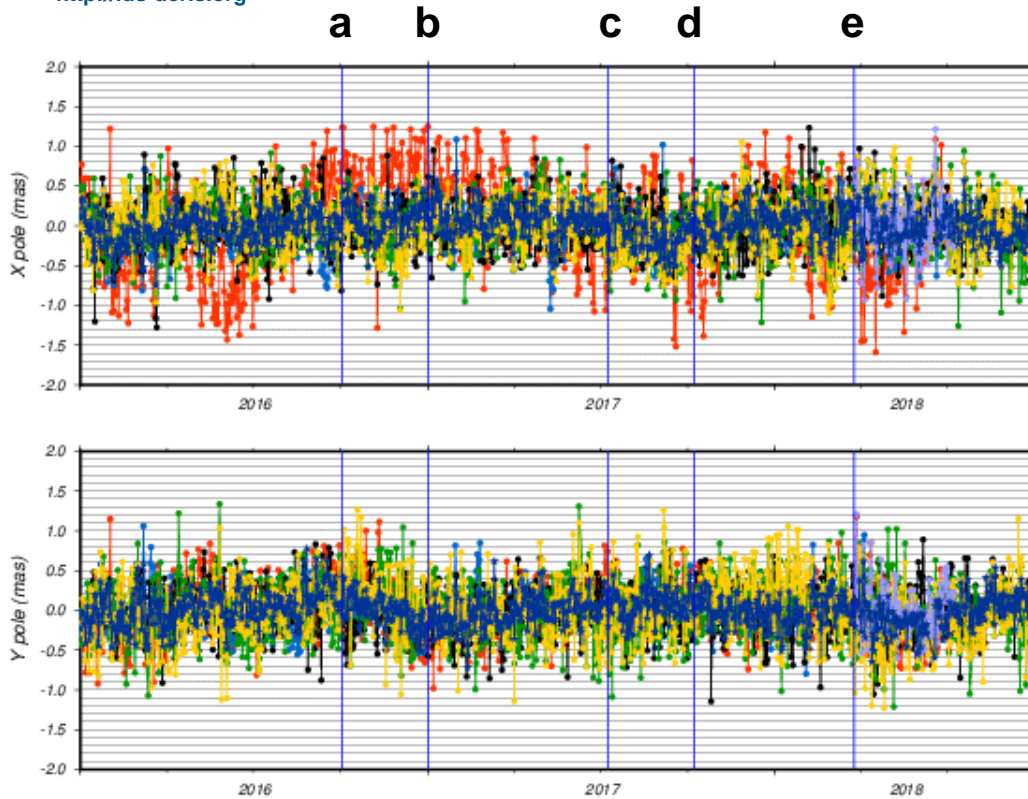
Time span: 2016:003-2018:273

## IDS 13:

- a) 2016:276 – From GOP 43 to GOP 50
- b) 2017:001 – From GSC 28 to GSC 29
- c) 2017:190 – From GSC 29 to GSC 31
- d) 2017:281 – From GRG 40 to GRG 41
- e) 2018:084 – From GOP 50 to GOP 52

Strong variations from GOP with a period of nearly 170-180 days

# IDS 13 Combined Solution



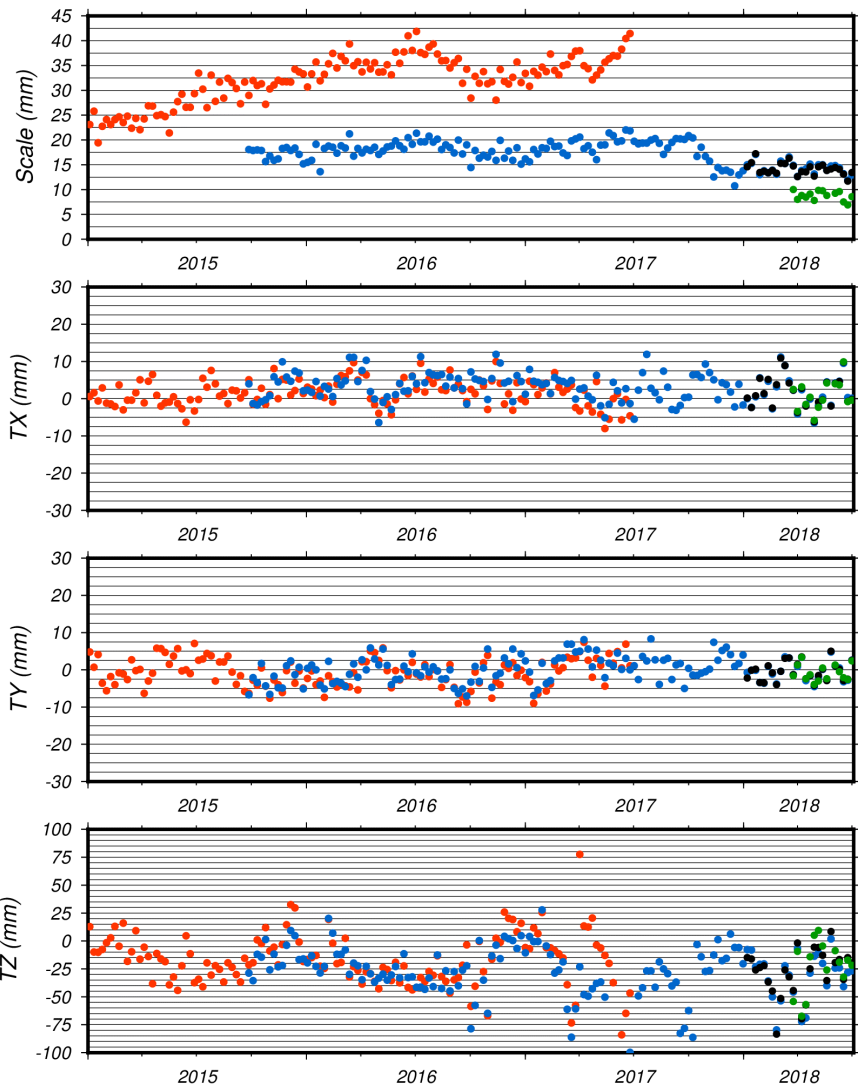
**Time span: 2016:003-2018:273**

AC	serie	# days	trend	X pole (mas)		trend	Y pole (mas)	
				mean	std		mean	std
gop	50	893	0.048	-0.002	0.565	0.030	0.001	0.327
grg	41	855	0.029	-0.002	0.251	-0.020	0.003	0.235
gsc	31	994	0.063	0.001	0.321	0.000	-0.001	0.306
ign	15	946	0.021	-0.002	0.340	-0.010	0.000	0.378
ina	10	952	0.117	-0.000	0.336	-0.070	0.001	0.397
gop	52	105	1.322	0.000	0.364	-1.070	0.008	0.310
ids	13	998	0.029	-0.000	0.208	0.020	0.000	0.206





# GOP 52 vs 51



**GOP 51:** **GOP 50** + cross track in onboard modeling

**GOP 52:** **GOP 51** + phase center offset from nominal micromodel

[mm]	Scale	Tx	Ty	Tz	WRMS
GOP 50	13.9 ± 1.0	0.7 ± 3.5	-0.5 ± 2.8	-28.8 ± 20.8	13.4 ± 1.8
GOP 51	13.7 ± 0.9	0.7 ± 3.7	-0.3 ± 2.7	-22.1 ± 20.6	13.0 ± 1.7
GOP 52	8.7 ± 0.9	0.7 ± 3.6	-0.3 ± 2.8	-17.6 ± 22.8	13.2 ± 1.8

AC	serie	# days	X pole (mas)			Y pole (mas)		
			trend	mean	std	trend	mean	std
gop	50	107	2.532	0.003	0.415	-1.120	0.008	0.331
gop	51	109	1.118	0.000	0.371	-1.040	0.007	0.314
gop	52	98	1.449	-0.000	0.362	-0.990	0.008	0.311

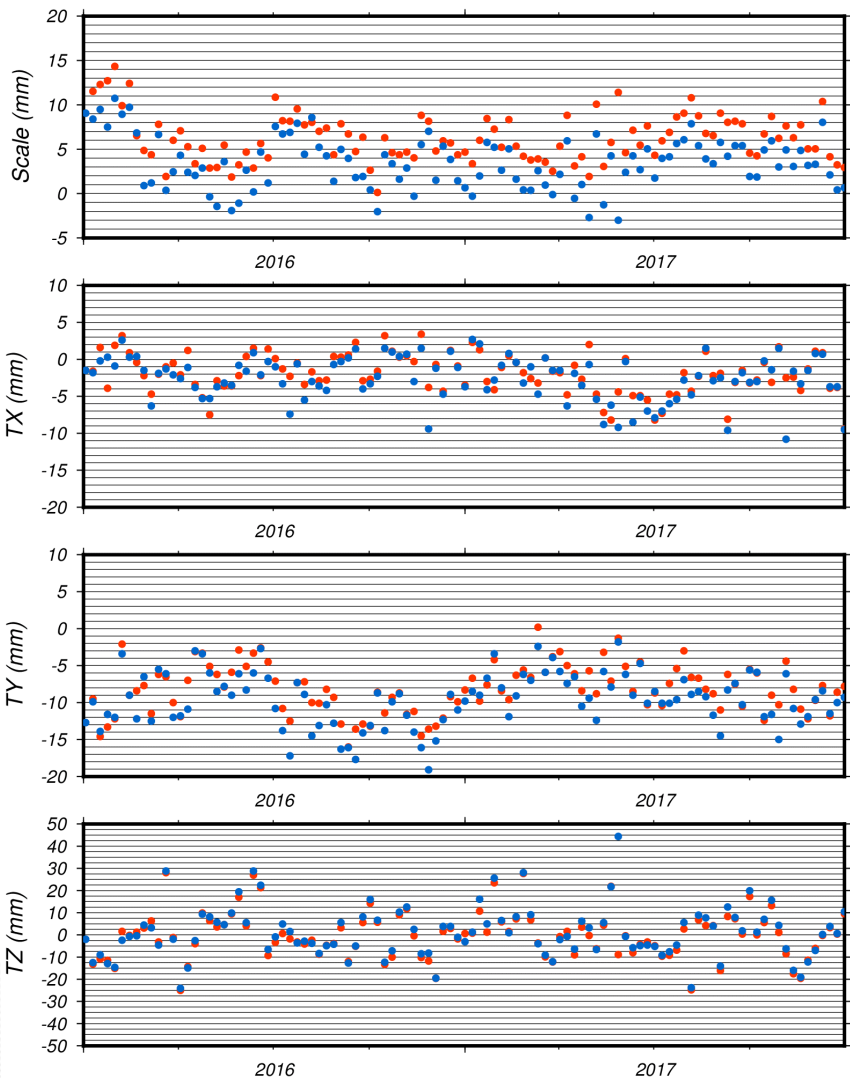
Scale decrease of nearly 5.2 mm over the 14 weeks.  
 Better centering of Tz (+11.2 mm).  
 10% reduction of EOP differences wrt IERS C04.

# GSC 32 vs 31

## GSC 32: GSC 31

+ new version of GEODYN

+ new Hy2A offset



[mm]	Scale	Tx	Ty	Tz	WRMS
GSC 31	6.3 ± 2.7	-2.0 ± 2.6	-8.2 ± 3.3	-0.3 ± 10.5	14.0 ± 1.4
GSC 32	3.5 ± 2.9	-2.6 ± 2.9	-9.6 ± 3.6	-1.2 ± 11.6	14.7 ± 1.5

AC	serie	# days	X pole (mas)			Y pole (mas)		
			trend	mean	std	trend	mean	std
gsc	31	720	0.012	0.000	0.325	0.020	-0.001	0.303
gsc	32	726	0.022	0.000	0.356	0.010	-0.001	0.328

Scale decrease of nearly 2.8mm over the 104 weeks

- **According to the new GOP, GRG and GSC series, we observe a nice reduction of the DORIS scale wrt ITRF2014 due:**
  - Use of a new HY-2A CoM-CoF vector
  - Including Jason-3
  - Implementation of SAA special handling
- **I kindly ask all the ACs to include and update the DORIS mission list in their weekly SINEX files**
  - ➔ easier understanding of the AC solution performance evolution.**



- **DORIS SINEX master file**

From the **SITE/ID**, **SITE/ANTENNA** and **ANTENNA/ECCENTRICITY** blocks of the **DPOD2014 SINEX** solution file.

Will be updated two times a year.

Available from the **IDS Central Bureau ftp site**

<ftp://ftp.ids-doris.org/pub/ids/stations/ids.snx>

- **EOP Time series: ids18d01.eop (idswd12) & ids18d02.eop (idswd13)**

XPO and YPO time series aligned to ITRF2014.

Available from the **IDS Data Centers**.