DORIS missions updates

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SARAL STATUS

- launched on **February 25th, 2013** at 12:36 UTC by the India's launcher PSLV.

- Since then, all is nominal: DORIS - Diode, Altimeter, ARGOS, …

- Final orbit reached on **March 13** (i=98,95° , 800 km , cycle: 35 days)

- Good reception of TM except during 14 to 16 March (Pb of tracking due to unaccurate orbit parameters)

- **1rst POE very soon,**

- End of commissioning phase on **June 5th 2013**

    ➔ DORIS data will be delivered to IDS **as soon as possible,**

    probably in May (with data starting on March 13):

    - document SOD « **DORIS satellites models implemented in POE processing** »

    - **DORIS2.2*** + RINEX+ POE (sp3) + Histo Man + Histo COM

(*) Last mission with DORIS2.2 data

Today 7 satellites contribute to IDS

- SARAL (CNES/ISRO): 800km, 98.5°   February 2013 → 2018 (DGXX+LR)

- HY2-A (CNSA, NSOAS): 960km, 99°   August 2011 → mid 2014(DGXX+LRA+GPS)

- CRYOSAT-2 (ESA): 717 km, 92°   April 2010 → end 2013 (DGXX + LRA)

- JASON2 (NASA/CNES): 1336 km, 66°   June 2008 → 2013 (DGXX+LRA+GPS)
  - **5 days of Safe mode in March** ➔ DORIS data interrupted from 25 to 29 March 2013

- SPOT5 (CNES): 830 km, 98°   May 2002 → 2015 (DGM)

- JASON1 (NASA/CNES): 1336 km, 66°   Dec 2001 → 2013 (DGM+LRA+GPS)
  - **3 weeks of Safe mode in March** ➔ DORIS data interrupted from 28 Fev to 15 March 2013

- SPOT4/TAKE5 (CNES): 830 km, 98°   March 98 → **june 2013** (D1G)
  - **New mission Take 5**: end of January 2013 ➔ end of May: to prepare image processing chains of the future mission Sentinel-2 (GMES project). On a new orbit (2.5 km lower)

At least 7 Future missions

- **SENTINEL3A (GMES) : 814km, 98.6°**   <u>end 2014</u> **(7.5 years + 5)**

  - Sentinel 3B**:**   **<u>2018</u>**

- **JASON-3** **(Eumetsat/NOAA/NASA/CNES) : 1336 km, 66°**   **March <u>2015</u> (5 years)**

- **HY2B*, C*, D***   **~ 2015, <u>??</u> (3 years)**

- **JASON-CS** **(Eumetsat/NOAA) : 1336 km, 66°**   **<u>2019</u> (7 years)**

  - *Jason-CS (B)***:**   *<u>2021</u>   (7 years)*

- **SWOT* (NASA/CNES) : 970km, 78°**   **<u>2020</u> (3 years)**

* *Mission pending approval*

DORIS constellation

| 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

SPOT2 *D1G*

Topex/Poseidon *D1G , SLR, GPS*

SPOT3

SPOT4 *D1G*

Jason-1 *DGM, SLR, GPS*

Envisat *D2G, SLR*

SPOT5 *DGM*

Jason-2 *DGXX, SLR, GPS*

CryoSat-2 *DGXX, SLR*

HY-2A *DGXX, SLR, GPS*   **HY-2B**   HY-2C, 2D

Saral *DGXX, SLR*

Sentinel-3A *DGXX-S, SLR, GPS*

Sentinel 3B…

Jason3 *DGXX-S, SLR, GPS*

Jason CS *DGXX-S, SLR, GPS*

Swot *DGXX-S, SLR, GPS*

Past missions

Current missions, agreed life time

Future missions, nominal life time

Future missions pending approval