

IDS report for IERS DB meeting, 15. November 2024, online

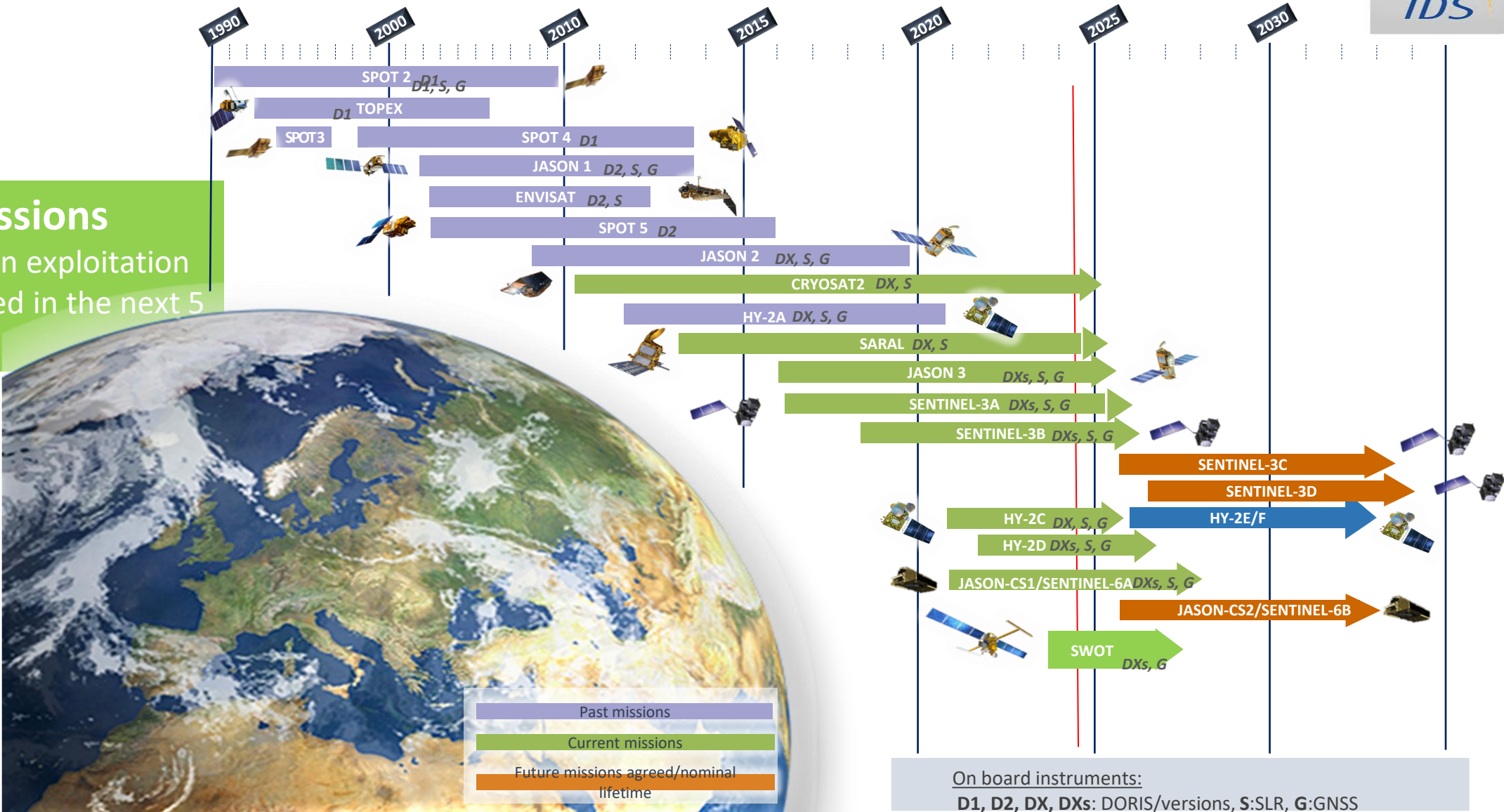
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Laurent Soudarin, Guilhem Moreaux



DORIS Constellation



Current missions
9 instruments in exploitation
5 to be launched in the next 5 years



Future missions

- **GENESIS**

- DORIS/GENESIS**

- DGXX-SEV model**

- Procurement supported by CNES**

- Preliminary technical analyses carried out at CNES DORIS laboratory**

- Schedule : Phase A, 6 months from the end of 2024**

- Manufacturing, 18 months**

- **Sentinel6C**

- Data continuity with Jason/Sentinel6A&B**

- Same organization as Sentinel6A&B : Airbus DS GmbH prime contractor**

- Launch around 2030**

- **Sentinel3 NG Topo**

- 2 satellites for ESA Copernicus Program**

- Strong heritage from SWOT altimeter**

- 2 DORIS instruments supplied by CNES (TBC)**

- Launch around 2032**

- **HY2 G & H**

- NSOAS confirmed its altimetry constellation HY2**

DORIS Network

85% Low-Earth Orbit coverage (800km)

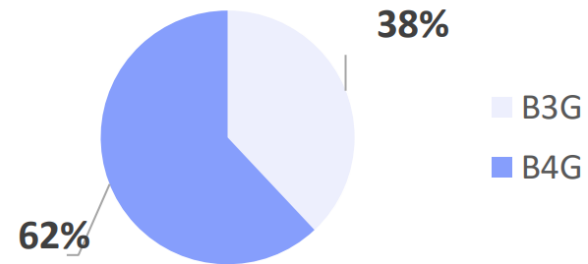
97% coverage at 1300km altitude



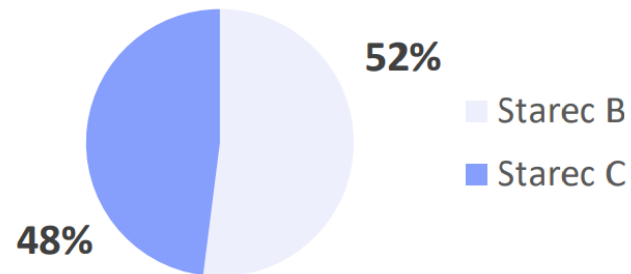
GM 2024 Aug 27 16:35:14 This map was created by IGN-France

DORIS Network (2)

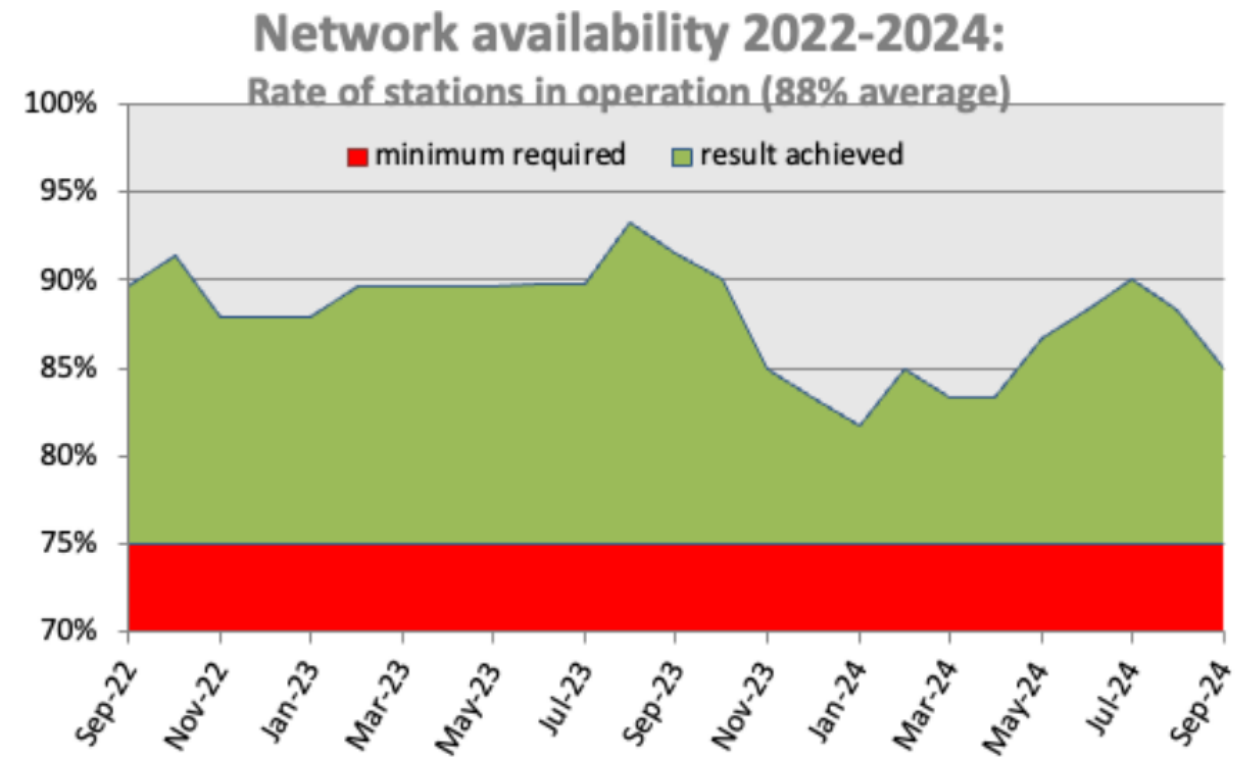
Beacon replacement



Antenna replacement



Good network availability (around 85%), minimum required is 75%

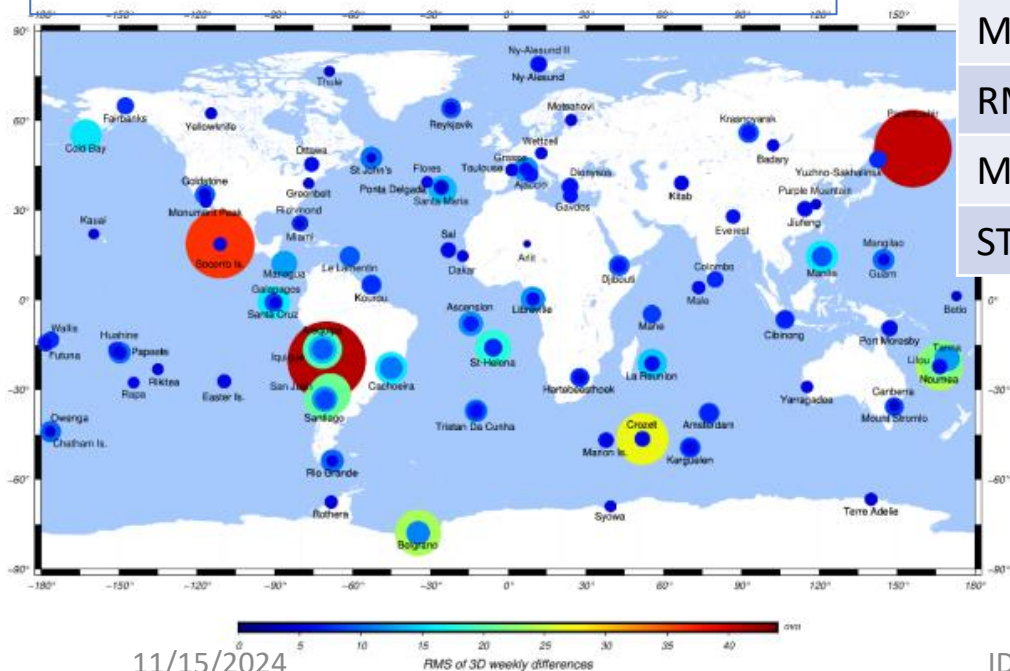


DPOD2020 v 3.0



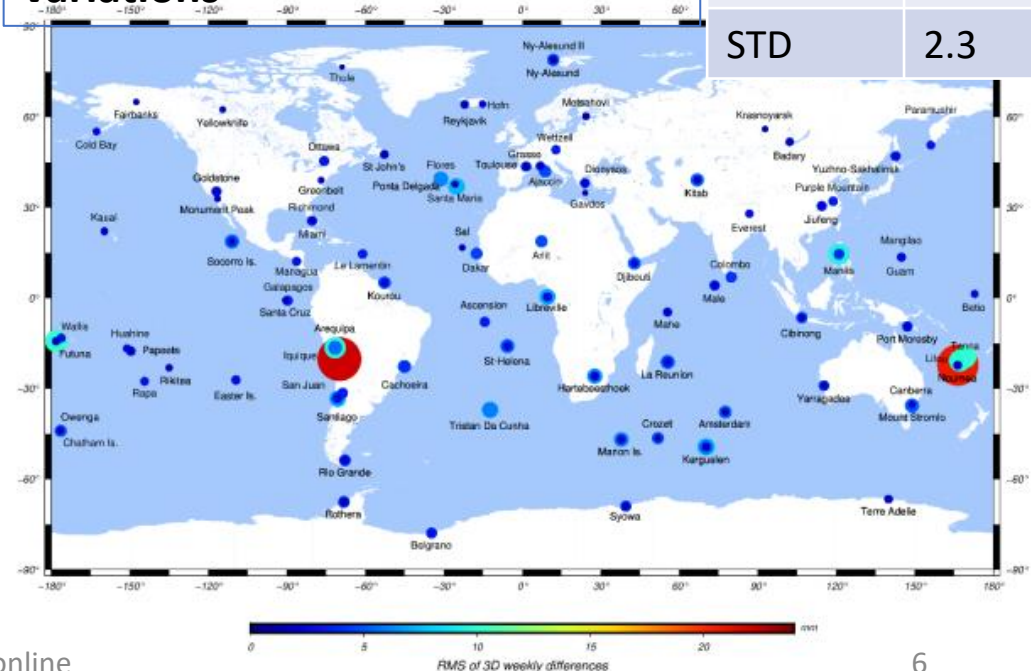
- DPOD is a set of coordinates and velocities for DORIS POD
- Time span: 1993.0-2024.0.
- IDS series: 19+23 (ESA16+GOP70+GRG54+GSC56+IGN16)
- Includes estimation of annual, semi-annual, 118 and 59-day signals.
- New: periodic signals are estimated for for sites with observations after mid-2002.
- Includes DORIS Post-Seismic Deformation corrections for Socorro and Goldstone
- 89 DORIS sites – 221 DORIS stations Compared to ITRF2020: 2 sites and 20 stations more.

Weekly comparison to ITRF2020, **with** annual and semiannual variations



	mm
Max	124.6
Median	5.0
RMS	7.9
Mean	6.2
STD	4.9

Weekly comparison to ITRF2020, **without** annual and semiannual variations



	mm
Max	39.6
Median	3.7
RMS	4.7
Mean	4.9
STD	2.3



- Cécile Manfredi is the new IDS representative of the DORIS system and a member of the Central Bureau
- Elections in Autumn for Data Centers' representative, Analysis Centers' representative and one Member-at-large (preliminary steps have been initiated)
- New Working Group “Integrated Clock Corrections for DORIS”; Chair: Patrick Schreiner (GFZ)
- New Working Group being set up “NRT ionospheric application”; Chair: Ningbo Wang (AIR/CAS)
- ESA Genesis Working Group DORIS: chair Guilhem Moreaux with DORIS experts and IDS members
- NRT data (RINEX DORIS data and DIODE orbits) of 7 missions are available now
- SWOT quaternions and solar panel angles soon available in a fitted format
- IDS activity report 2023 just released <https://ids-doris.org/ids/reports-mails/governing-board/ids-activity-report-2023.html>
- IDS Workshop in Montpellier (France), 4.-5. September 2024. Presentations online <https://ids-doris.org/ids/reports-mails/meeting-presentations.html>

Analysis coordination

- **AWG meetings typically twice per year (one online + one onsite/hybrid)**
- **6 ACs, 4 AACs, 1 CC (combination center)**

Name	Center	Location	Contact	Software	Multi-technique
ESA	AC	Germany	Michiel Otten	NAPEOS	SLR, GNSS
GOP (Geodetic Observatory Pecny)	AC	Czech Republic	Petr Stepanek	Bernese	
GRG (GRGS)	AC	France	Hugues Capdeville	GINs	SLR, GNSS
GSC (NASA/GSFC)	AC	USA	Frank Lemoine	GEODYN	SLR
IGN	AC	France	Samuel Nahmani, Arnaud Pollet	GIPSY	
INA (Inasan)	AC	Russia	Sergei Kuzin	GIPSY	
CNES/POD	AAC	France	Alexandre Couhert	Zoom	SLR, GNSS
GFZ	AAC	Germany	Patrick Schreiner	EPOS-OC	SLR, GNSS
TU Delft	AAC	Netherlands	Ernst Schrama	GEODYN	SLR
DGFI-TUM	AAC	Germany	Mathis Bloßfeld, Sergei Rudenko	DOGS	SLR

Thank you for your attention

