



IDS REPORT 2024

IERS Directing Board Meeting

April 13, 2024

DORIS

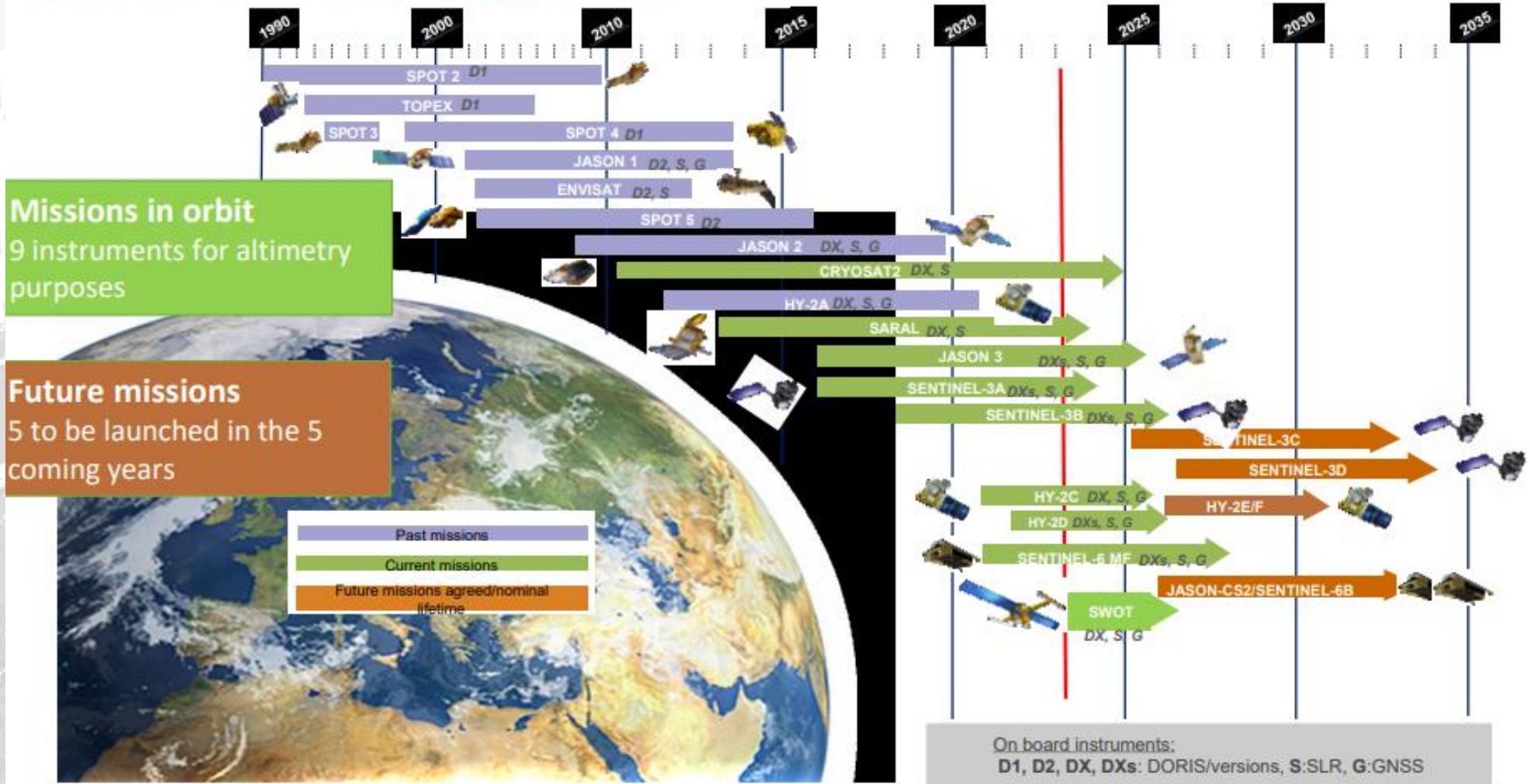


IDS IERS members:
Petr Stepanek (GOP)
Jérôme Saunier (IGN)

DORIS system News

- **SWOT mission** □ **DORIS « ON »** in January 2023
- **Extensions of in-orbit missions:** □ **Cryosat-2 (2025 at least), Saral (2024), Jason-3 (2025), Sentinel-3A (TBC)**
- **Future missions:** □ **Sentinel-6B (nov 2025), HY-2E (mid-2025), Sentinel-3C (end 2024), Sentinel3D (end 2028), HY-2F (date TBD), Genesis (2027 TBC)...S3-NG, S6-NG...**
- **DORIS « NEO »**
 - **New architecture considered**
- **mixed DORIS/GNSS receiver**
 - **in order to consolidate the technology maturity: complementary work requested in early 2024**
- **Connection of beacons to atomic clocks (part of IDS strategic plan)**
 - □ **Wettzell, Ny-Alesund, Yellowknife and HBK connected to masers (VLBI), Greenbelt and Kauai under discussions**

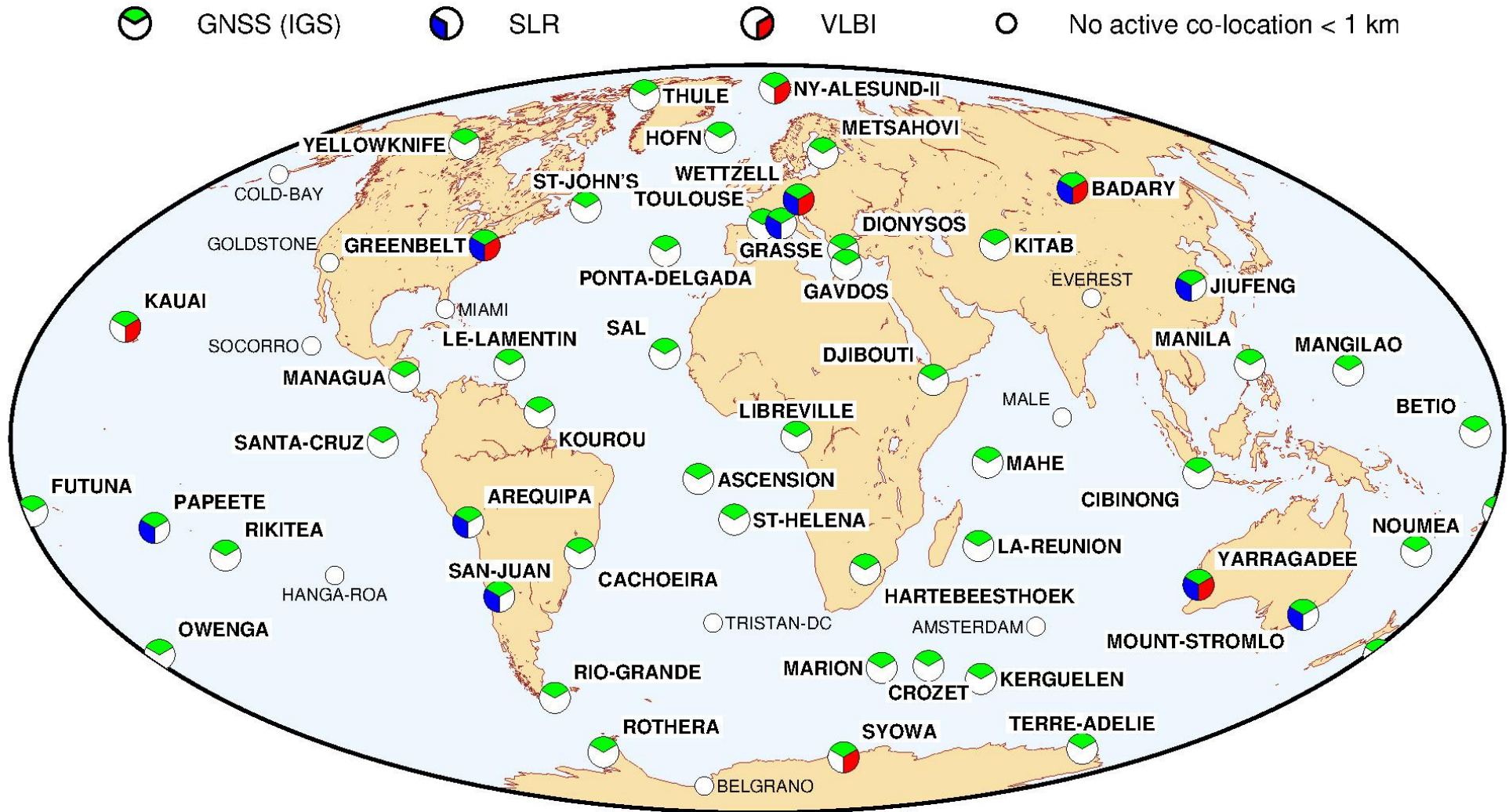
DORIS CONSTELLATION



- **Arnaud Sellé changes of activity and is replaced by Claude Boniface as CNES/IDS project manager and representative of the DORIS system within the IDS.**
- **New WG „Sentinel clocks“ set up**
- **Data and auxiliary data available at IDS for SWOT**
- **NRT data for Jason-3 delivered by a non-operational chain**
- **IDS meetings**
 - **IDS AWG meeting, online, 4 and 6 June 2024**
 - **IDS DORIS Workshop, in conjunction with 30 years of progress in radar altimetry symposium » 2-6 September 2024, Montpellier, France**

Current IDS Network

DORIS stations co-located with other IERS techniques



GMT 2024 Mar 25 10:33:12 This map was created by IGN-France

50 co-locations out of 60 DORIS sites

DORIS Network Operational Status

❑ Past Events

- Dec. 2023: Major renovation at Rikitea (French Polynesia) with antenna move (20m)
- Jan. 2024: Rothera (Antarctica) restarted after 1-yr outage
- Feb. 2024: Crozet (Southern Indian Ocean) restarted after 3 months outage
- Mar. 2024: Syowa (Antarctic): station relocation (400m) due to site refurbishment

❑ Network Reliability

- **Good rate of stations in operation: 85%** (8 stations currently down)
- 62% (37/60) of the network stations equipped with the 4th generation beacon (deployment started from mid 2019)
- Gradual replacement of the Starec B antenna with Starec C: 28/60 stations equipped

❑ Planned Network Field Operations in 2024

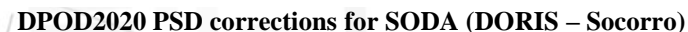
- May : Major renovation at Le Lamentin (French Indies): antenna move + eq. upgrade
- June: New station installation in Katherine (NT, Australia): co-location VLBI / GNSS
- July : New station installation in Ulaanbaatar (Mongolia): co-location with GNSS
- Sep. : Major renovation at Cachoeira (Brazil): antenna move + equipment upgrade
- Sep. : Major renovation at Everest (Nepal): antenna move + equipment upgrade
- Nov. : New station installation in Kanpur (India): co-location with GNSS “IITK”
- Continuation of the 4th generation beacon deployment



- **Based on 6 ACs (2 more compared to ITRF2020) with 6 different software packages.**
- **2 new DORIS sites (Hanga Roa, Höfn) and back to Gavdos.**
- **8 DORIS missions (including 3 new ones).**

- **Data span: 1993.0-2023.0**
- **First version of the DPOD with DORIS only post-seismic and seasonal corrections.**

- **Data span: 1993.0-2024.0**
- **New strategy of seasonal correction estimation.**





<http://ids-doris.org>