



Committee on Earth Observation Satellites

OST-VC

VC Co-Leads: Annick Sylvestre-Baron/CNES,

Remko Scharroo/EUMETSAT

CEOS SIT Technical Workshop 2020

Session and Agenda Item # 3.2

Virtual Meeting

11 September 2020





OST-VC links the agencies, OSTST, altimetry user community, and CEOS

- Ocean Surface Topography Science Team
 - ROSES call (<https://nspires.nasaprs.com/external/index.do>) & TOSCA call (https://www.aviso.altimetry.fr/en/news/front-page-news/news-detail.html?tx_ttnews%5Btt_news%5D=2556) for renewal of the ST for 2021-2024 are on going
 - Proposals due on October 1st (TOSCA call) and on October 8th (ROSES call)
 - 2020 OSTST meeting planned next October was cancelled due to covid-19
- Inter-agency cooperation on **current** and **future missions**
 - **CFOSAT**: CNSA, CNES, EUMETSAT (NRT distribution)
 - **Jason-3**: NOAA, EUMETSAT, NASA, CNES
 - **SARAL/AltiKa**: ISRO, CNES, EUMETSAT (NRT distribution)
 - **Hy-2A/2B/2C/2D**: CNSA, CNES
 - **Sentinel-3 A/B/C/D**: EU, EUMETSAT (ocean), ESA (land)
 - **Sentinel-6 Mickael Freilich/B**: EU, EUMETSAT, ESA, NOAA, NASA, CNES
 - **CRISTAL**: EU, ESA (polar areas), EUMETSAT (global ocean)
 - **SWOT**: NASA/JPL, CNES, CSA, UKSA
 - **WISA**: ESA, CNES
 - **CryoSat-2**: ESA
 - **COMPIRA**: JAXA
 - **GUANLAN**: CNSA
 - **Copernicus Next Generation Topography Constellation (Follow-on of S3, S6 and CRISTAL)**
- OST-VC suited to discuss constellation-wide programmatic issues
 - From virtual to actual coordinated constellation
 - Update of Constellation URD
- OST-VC representative in COVERAGE initiative
- OST-VC is interested by some coordination with the CEOS COAST (Coastal Observations and Applications Study Team) especially in the context of coastal altimetry.



Co-chairs:

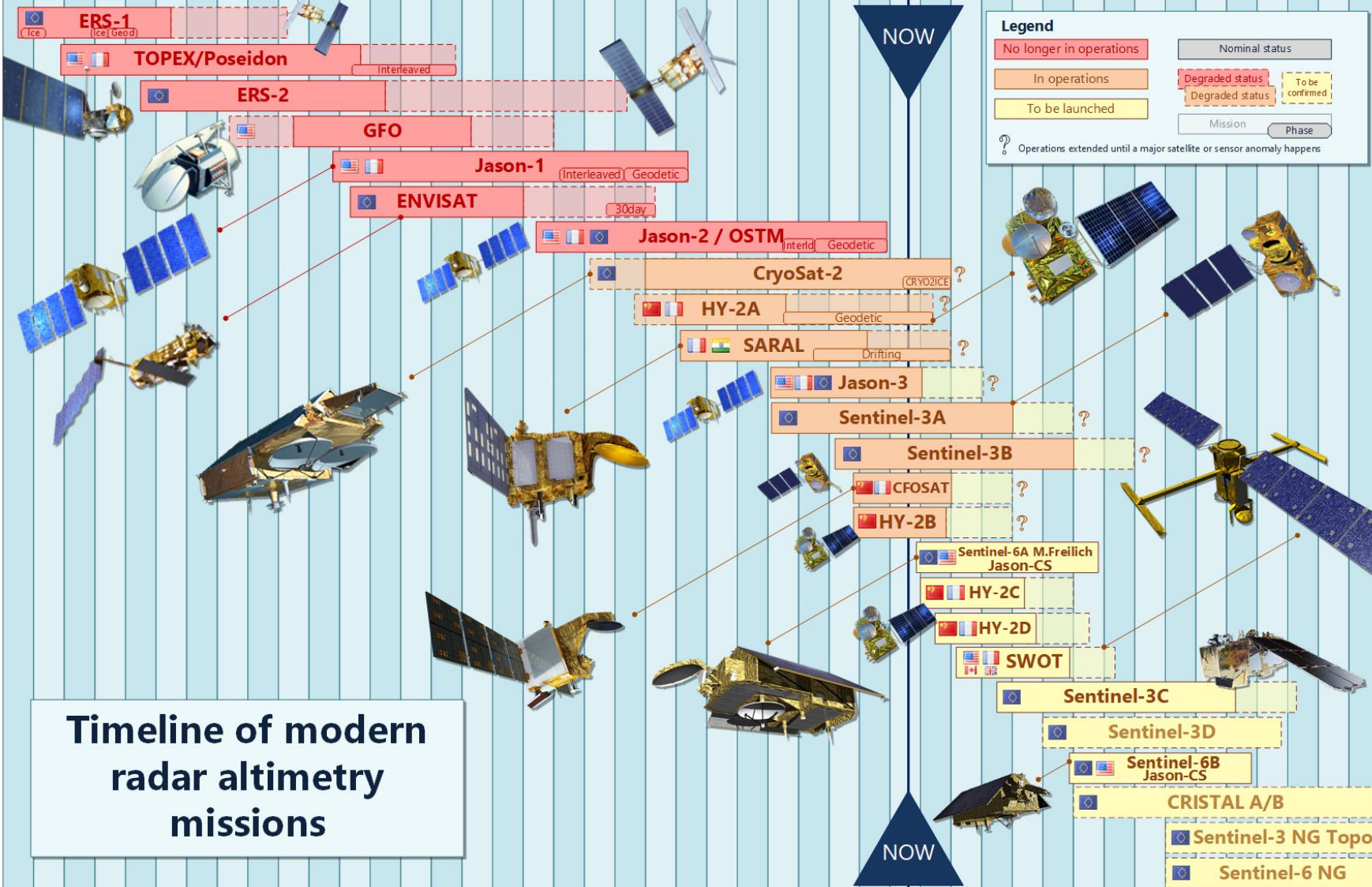
- Remko Scharroo (EUMETSAT) also OSTST project scientist, to be replaced by Estelle Obligis (proposed to the SIT meeting for approval in October)
- Annick Sylvestre-Baron (CNES)

Other members:

- Craig Donlon (ESA) also OSTST project scientist
- Eric Leuliette (NOAA) also OSTST project scientist
- Nadya Vinogradova (NASA) - Eric Lindstrom retired end of 2019
- Gregg Jacobs (US Navy)
- Kai Matsui (JAXA)
- Rashmi Sharma (ISRO)
- Wang Chen left CNSA last year – A new CNSA representative to be designed



1991 92 93 94 95 96 97 98 99 2000 01 02 03 04 05 06 07 08 09 2010 11 12 13 14 15 16 17 18 19 2020 21 22 23 24 25 26 27 28 29 2030 31 32 33 34 35



Timeline of modern radar altimetry missions

1991 92 93 94 95 96 97 98 99 2000 01 02 03 04 05 06 07 08 09 2010 11 12 13 14 15 16 17 18 19 2020 21 22 23 24 25 26 27 28 29 2030 31 32 33 34 35

**CFOSAT**

- Launched 29 October 2018 - Not directly for ocean topography, but winds and waves
- All data released to science community since July 2020
- L3 SWH CFOSAT available on CMEMS catalogue

SARAL

- Extension of mission to end of 2021
- Current drifting phase - for winds, waves and geodetic applications

Jason-3

- Since Jason-2 decommissioning, Jason-3 is the altimetry reference mission
- Still on historical TOPEX/Poseidon orbit – S6 Michael Freilich on the same orbit as Jason-3 for at least 6 months then Jason-3 will change to a TBD orbit (OSTST action)

Sentinel-3

- C unit planned for 2023 and D unit for 2025. Phasing with A/B under discussion.

Sentinel-6 Michael Freilich

- To be launched on November 10th, 2020 (LORR on 10th of September)
- Will be the future altimetry reference mission
- Sentinel-6B to be launched around 2026.

HY2

- HY2-B - Nominal quality of data and nominal availability. L2 products available from CNSA. L3 in CMEMS catalogue since this summer.
- HY2-C to be launched this fall

SWOT

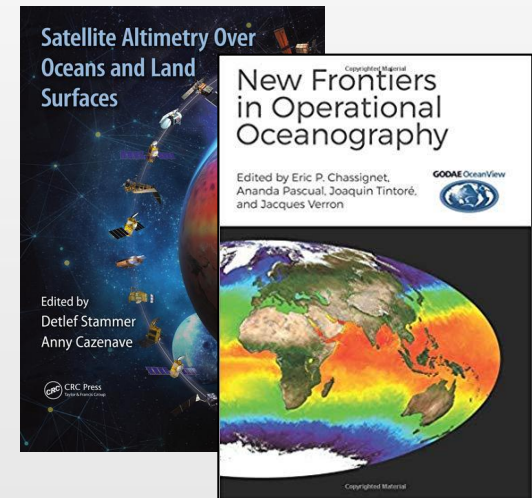
- Official launch date (decision before covid-19 crisis): Feb 2022

Reprocessing

- To secure and improve the climate quality sea level time series various reprocessing efforts are on-going
- Sentinel-3: full reprocessing for A and B satellites done in 2020
- TOPEX/Poseidon: to be available soon
- Jason-3 reprocessing is ongoing (alignment with Sentinel-6 standards). Jason-1 & 2 to follow.



- ❑ Important action from last 2019 CEOS Strategic Implementation Team Technical Workshop (SIT TW 2019) – 11/12 September 2019, Fairbanks, USA
- ❑ Update of the “Next 15 years of altimetry – OST Constellation User Requirement Document”, 2009.
- ❑ Integrate new user needs (included specific requirement from the CEOS COAST team) from recent books and white papers from the community. E.g.



- ❑ Deliver a new OST-VC White Paper Document (action VC-19-06) by Q4 2020



- OST-VC Side meeting at 2019 Ocean Surface Topography Team (OSTST) Meeting in Chicago, 21-25 October 2019 mainly dedicated to action VC-19-06
 - OST-VC presentation done during the OSTST plenary closure session to present the OST-VC action (contents, implementation planning, OSTST solicitation)
 - ✓ OSTST will be be solicited:
 - For specific contributions in their area of expertise
 - For overall review of the first draft
 - ✓ Remaining parts will be done by the OST-VC members under Eumetsat/CNES coordination.
- Beginning of 2020, ESA kicked off the Copernicus Next Generation Topography Constellation (NG-TC) Expert Team. Because of the large overlap with the activities considered for the writing of a White Paper on this by the OST-VC, it was concluded that the activities for the White Paper would best be delayed until the NG-TC activities have concluded (later 2020), and the scope of the OST-VC White Paper can be reassessed. The NG-TC MATER (Mission Assumptions and the derived Technical Requirements) will be an additional input to update the OST-VC white paper.
 - OST-VC members were informed mid of May
 - Information done via OST-VC May monthly report
 - **New deadline for VC-19-06 is End of 2021**