

SWOT PROGRAM STATUS

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JUNE 2024



Expanding SWOT Science Team & Earth Water Community

New NASA ROSES-23 selections 2024 – 2028: 120 members · 70 institutions · 65% new PIs · 40% Early Career · \$30M

Science Management

Nadya Vinogradova Shiffer (NASA)

Yannice Faugere (CNES)

Earth Science & Actions

Ocean physics & Climate

Earth's heat, energy, sub-mesoscales, ocean dynamics, tides, marine geophysics

Land Hydrology

River discharge, water storage in lakes and reservoirs, modeling, data assimilation

Coastal Processes

Wetlands, floodplains, sediments, carbon

Cryospheric Science

Greenland, Antarctica, Arctic lakes, permafrost

Applications /Actions

Water resource management, operational forecast, environmental justice

Science Leads

NASA: Lee-Lueng Fu, Tamlin Pavelsky, J. Tom Farrar, Jinbo Wang

CNES: Rosemary Morrow, Jean-Francois Cretaux

Working Groups & Team Building

Ocean Tides and Internal Waves

Ocean Waves, Winds, and Mean Sea Surface

Ocean Data Inversion and Assimilation

Ocean High-Resolution Modeling

Deltas, Estuaries, and Coasts

River Discharge Algorithms

River Science

Lakes and Wetlands

Regional cal/val

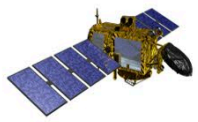
Cryospheric Applications

AI/ML, Global Modeling, Digital Twins

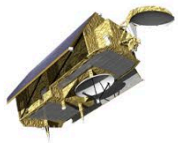
Actions and Stakeholder Engagement



JASON-3



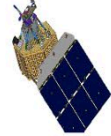
SENTINEL-6 MF



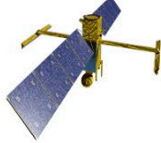
SMAP



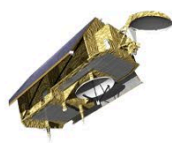
COWVR



SWOT



SENTINEL 6-B

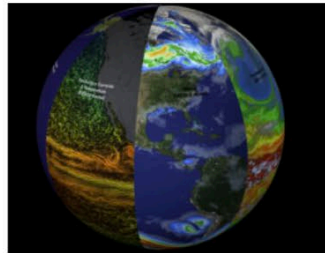


CRISTAL



S-MODE

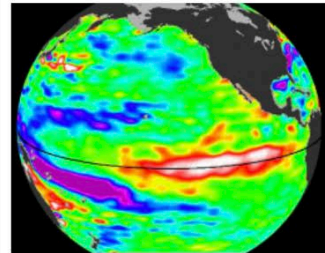
SASSIE



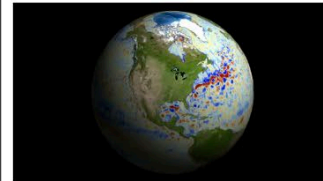
Physical Oceanography (PO)



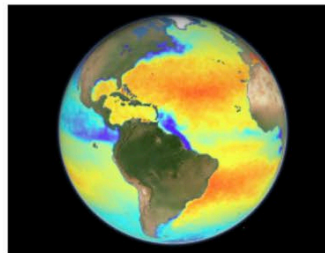
Sea Level Change (N-SLCT)



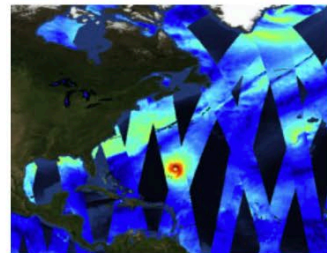
Ocean Surface Topography (OSTST)



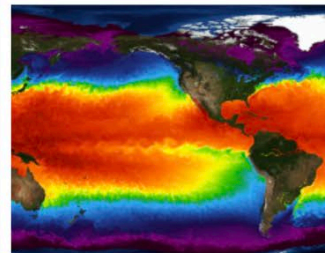
Surface Water and Ocean Topography (SWOT)



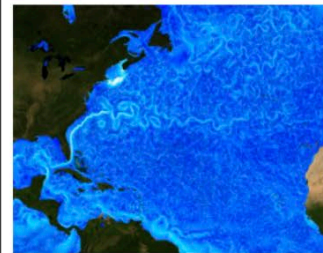
Ocean Surface Salinity (OSST)



Ocean Vector Winds (OVWST)



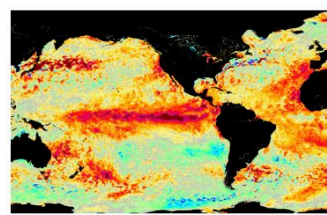
Sea Surface Temperature (SST)



Estimating Circulation and Climate of the Ocean (ECCO)



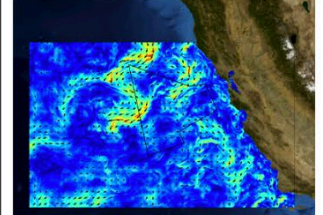
Coastal Resilience



Ocean Heat and Earth Energy



Salinity and Stratification at the Sea Ice Edge (SASSIE)



Sub-Mesoscale Ocean Dynamics Experiment (S-MODE)

NASA Ocean Physics

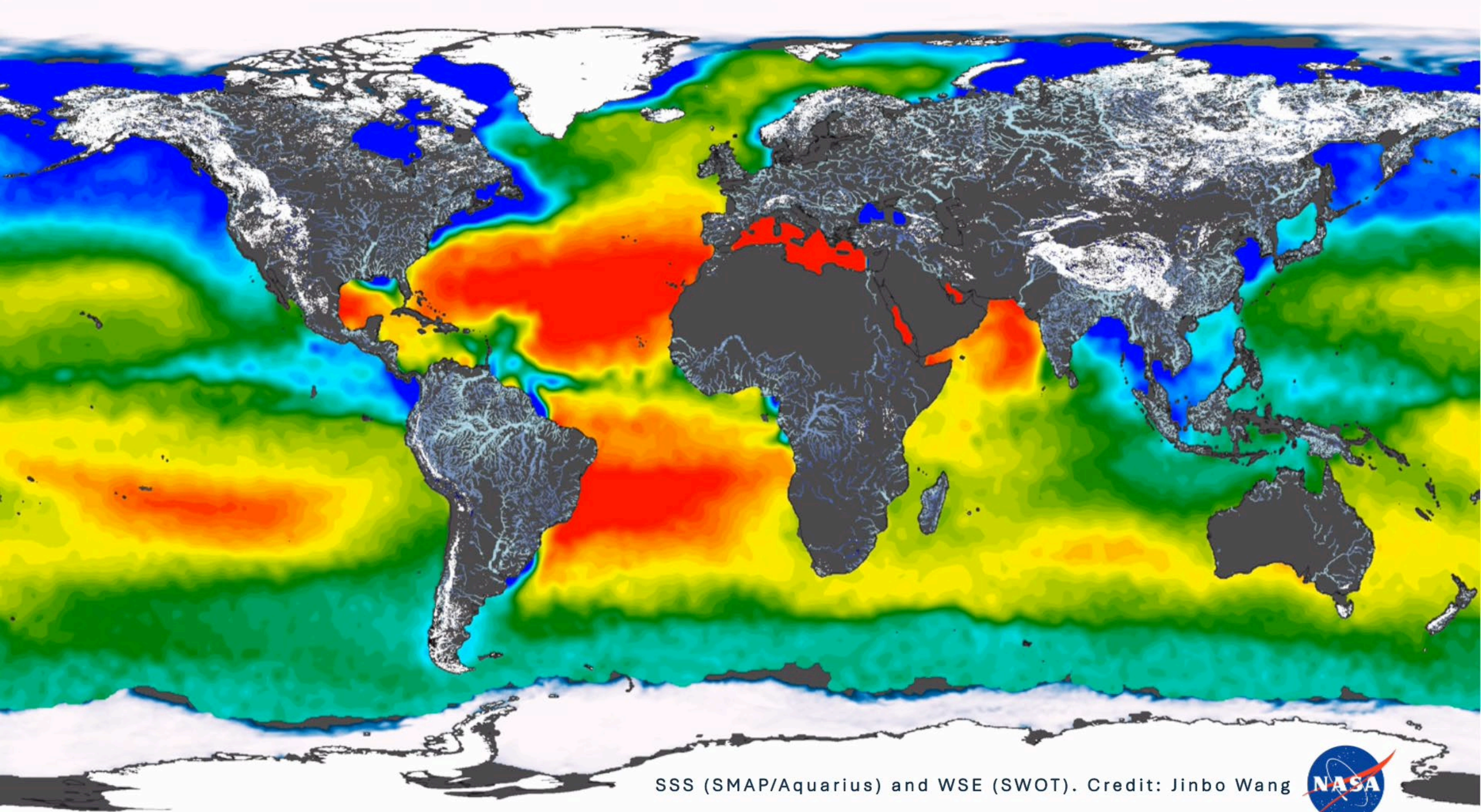
Science Teams & Missions



Dr. Nadya Vinogradova Shiffer

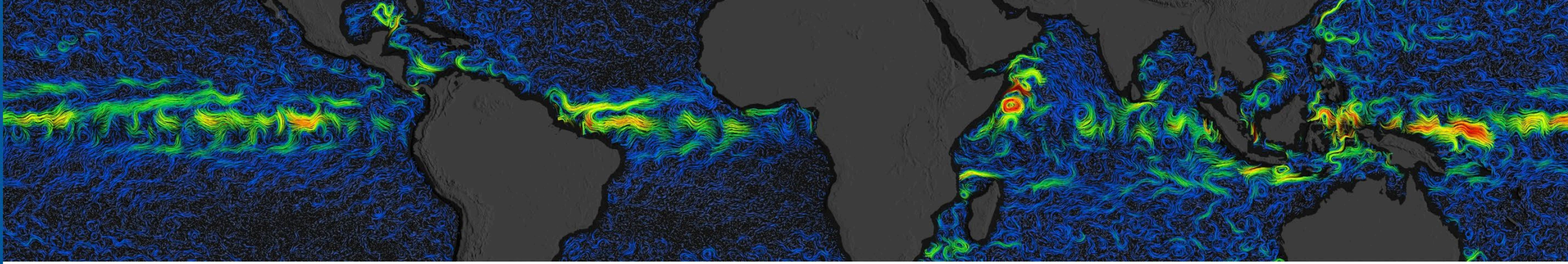
<https://go.nasa.gov/phocean>

nadya@nasa.gov



SSS (SMAP/Aquarius) and WSE (SWOT). Credit: Jinbo Wang





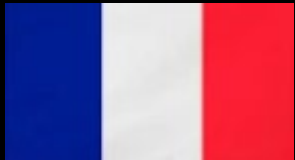
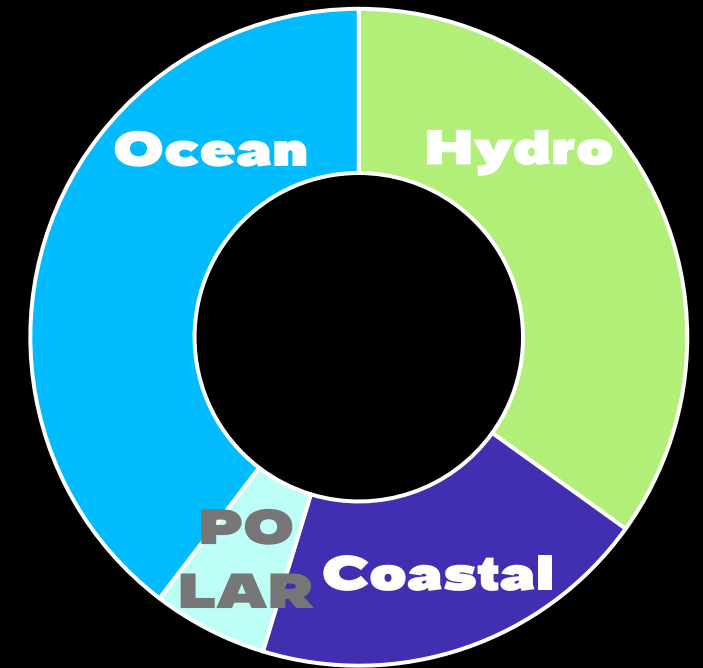
Congratulations ODYSEA Team!

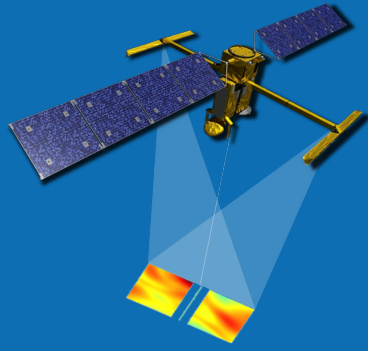
○ Step 1 (phase A) selection as NASA Earth System Explorer

Help ODYSEA make its next step towards the launch!

ST RENEWAL 2024-2027 - FRENCH & INTERNATIONAL

- Selection by CNES, TOSCA and mission Pis
- 67 projects accepted
 - 23 projects have been extended
 - 44 new proposals
- Covering 4 themes Ocean, Hydro, Coastal & polar
- The new ST 2024-2027 is therefore made up of 106 members
- 15 countries represented



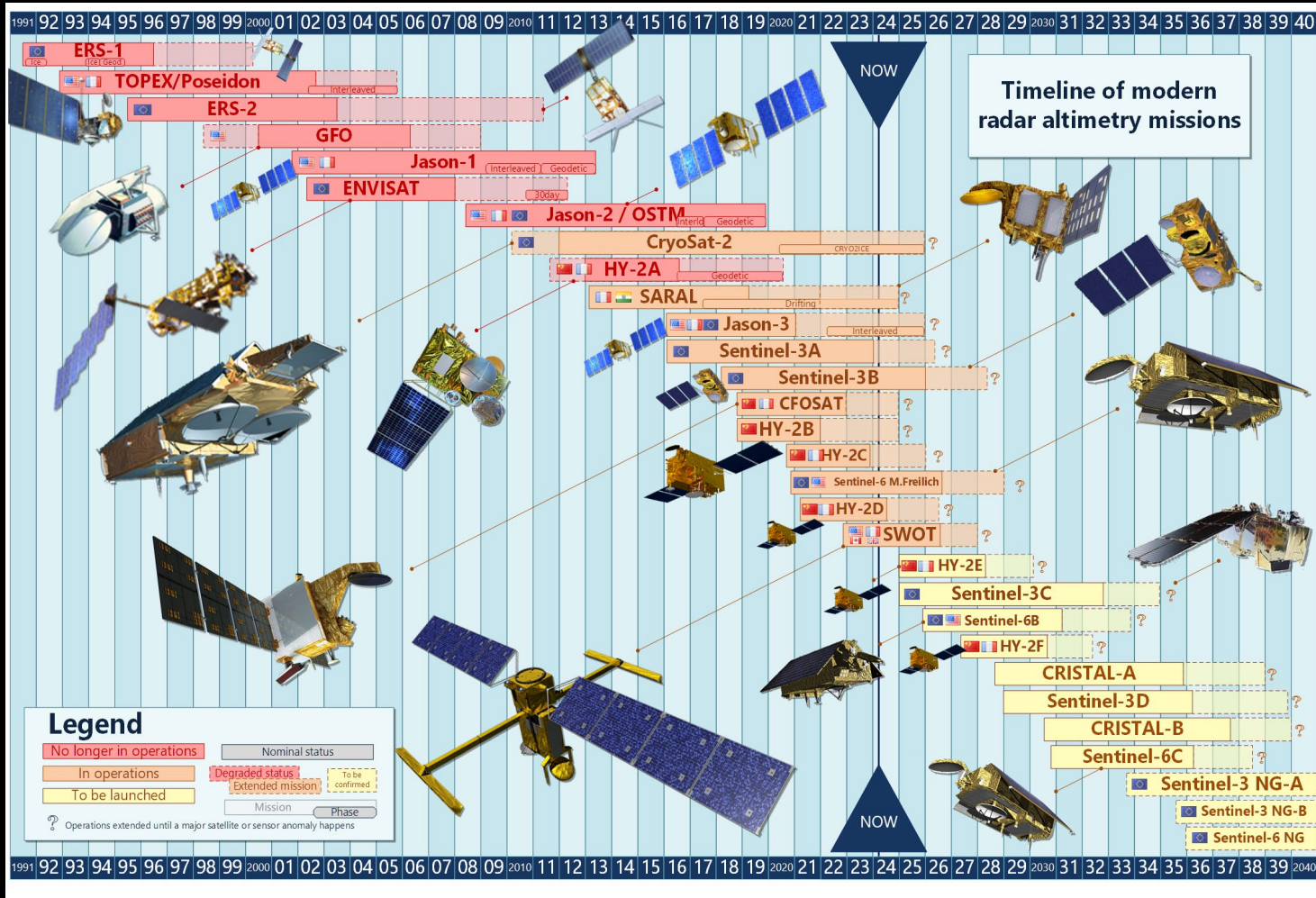


SWOT @ EGU 2024

45 presentations in 9 different sessions

Overview (Morrow, Fu, Fayne, Legac), **ocean & hydro Calval** (Rousselet, Garreau, Martin, Prandi, Petrenko, Mourre, Martellucci, Barnoud, Vayre, Yanez), **Ocean processing** (Dibarboure, Pujol, Frery), **Ocean circulation** (Verger Mirales, Demol, Le Guillou x2, Carli, Hernandez, Tolu, Vergara, Bellemin-Laponnaz, Bertrand), **Ocean Tide** (Chouksey, Tchilibou), **Waves** (Husson, Bohe, Rolland), **Geodesy** (Andersen, , Nilsson), **Coastal** (Hart Devis, Lichtman, Fenoglio-Marc, Monahan, Froideval), **Polar** (Farrell, Bonaduce), **Tsunami** (Faugere), **Water level** (Schwatke, Zawadzki), **Lake processing** (Pottier), Hydro Assimilation (Soman)

SWOT OPENS THE ERA OF SWATH ALTIMETRY



Successful Sentinel-3 Next Generation Topography Mission Gate Review on the 2nd of May 2024

Concerns on the swath concept were closed

SWOT astonishing results obtained so rapidly after launch is a crucial input in the decision process

Registration opened !



30 YEARS OF PROGRESS IN RADAR ALTIMETRY SYMPOSIUM

2-7 September 2024
Montpellier, France

www.altimetry2024.org

