Recommendations and Appreciations of the Ocean Surface Topography Science Team

Venice, Italy, 31 Oct – 4 Nov, 2022

Recommendation: Jason-3/Sentinel-6MF Tandem phase

Given the societal importance of the sea level record and the need to understand its long-term uncertainty, the OSTST recommends to the Jason-3 Project an additional tandem phase between Jason-3 and Sentinel-6 MF that lasts 12 cycles, after at least 2 years in the interleaved mission. The OSTST recognizes that the second tandem mission should have no operational impact on Sentinel-6MF.

Recommendation: Sentinel-6B

The OSTST recommends that Sentinel-6B should:

- Operate both sides of the altimeter during commissioning.
- Execute a tandem mission with Sentinel-6A of at least 10 cycles on the one side followed by 10 cycles on the most performant side, so that no switch back is necessary after tandem.
- During tandem, S6B should use Mode Mask H on the first side and Mode Mask F on the second side.
- S6B commissioning should include attitude flip maneuvers as performed for S6-MF.

Recommendation: OneArgo

Recognizing the decline in the existing core Argo array and to strengthen the complementary observations between altimetry and Argo, including the need for closure of global and regional sea level budgets, quantifying Earth's energy imbalance, and understanding interaction of the biosphere and ocean physics, the OSTST supports the full deployment and sustainment of all three components of OneArgo, an integrated global, full depth and multidisciplinary ocean observing array.

Appreciation: Altimeter Product Research and Development

Given the importance of advancing Delay-Doppler/SAR-altimetry capabilities and continuing to maintain and evolve the quality of existing altimeter products, the OSTST expresses its appreciation to the funding agencies for their ongoing support of research, technical advancements, and computational resources.

Discussion: Carbon Footprint

Given its long history of measuring high-quality climate time series, the OSTST also discussed measures and recommendations it might take to limit its impact on greenhouse gas emissions. This concerns the form and frequency of its meetings, but also the impact of space missions, computer processing and data storage.