

Science IV: Altimetry for Cryosphere and Hydrology Session

Splinter Group Discussion

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Ocean Surface Topography Science Team Meeting (OSTST)
21-25 October, 2019
Chicago, Illinois

Timeline of satellites:
TOPEX/Poseidon 1992-2006
Jason 1 2001-2013
OSTM/Jason 2 2008
Jason 3 2014
Sentinel-6A 2020
Sentinel-6B 2025

Logos: cnes, NOAA, NASA, EUMETSAT, esa

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- 1. How should we prepare for potential polar altimeter gap in mid 2020s?**
 - Loss of coverage over Arctic Ocean & Antarctica; Impacts on high-latitude hydrology
- 2. Can we make better use of multi-mission synergies?**
 - e.g. CryoSat-2 & ICESat-2; CryoSat-2 & AltiKa
- 3. How should we advance coastal, hydrology, cryosphere, and ocean altimetry?**
 - Vibrant community: Cryo & Hydro session most subscribed session at OSTST 2019!
- 4. How can we improve collaboration and communication?**
 - Should the OSTST try a joint meeting with other teams? If so, what other groups?

1. How should we prepare for potential polar altimeter gap in mid 2020s?

- Official OSTST recommendation on continuation of polar altimeter time series

2. Can we make better use of multi-mission synergies?

- Orbit alignment between CryoSat-2 and ICESat-2
- Coordinated in situ field campaigns for cal/val in polar regions – AltiKa, CryoSat-2, ICESat-2
- Advancing scientific studies – snow on sea ice / land ice, sig. wave height (SSB vs. lidar wave heights), river and reservoir heights,...

3. How should we advance coastal, hydrology, cryosphere, and ocean altimetry?

- At least two sessions, possibly more! (sea ice, inland lakes & rivers, land ice, polar oceans)
- **Better involvement of end users – via thematic sessions & applications sessions** (vs. technical sessions)
- End user needs must be clarified to optimize future sensor development and data product generation (e.g. hydrology session(/s) aimed at hydrologists and water management agencies; establish regular feedback process/review of data products)

4. How can we improve collaboration and communication?

- Coordinated/joint meetings: extra effort to coordinate outweighed by improved collaborations. Reduces carbon footprint.
- Improved coordination within/across OSTST, organised around thematic groupings, could also be beneficial
- Transparency & guidance on how OSTST recommendations transmitted to high-level policy makers/funding agencies
 - How do we make our voices heard?
 - More broadly, how do we work towards mitigating the climate change issues we face?