

Tides - Internal tides – HF Splinter - Discussion Points and recommendations



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

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

    

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The banner features a dark blue background with a view of Earth from space and the Moon. A series of satellite icons are arranged in a curved path, each labeled with its name and operational period. The logos of the participating organizations are displayed at the bottom.

Key Points to be Discussed during Tides - Internal tides – HF Splinter - Discussions

Jason-3 Extension of Life

- Recommendation from OSTST 2018 = Continue an interleaved orbit (as per usual)
- OSTST 2019 = interleaved orbit but need to provide some quantitative estimation of what extension is needed (how many years ? ...)

Tides internal tides & HF splinter - discussion

- **Internal tides**
 - OSTST2018 recommended an internal tide model for use by the community (e.g., in CMEMS processing, in RADS, etc.) : Ed Zaron model
 - We recommend to apply this IT correction on the GDRs SLA
 - Still need to better understand/estimate/model internal tides variability and non-stationary part

Tides internal tides & HF splinter - discussion

- We should start to worry/investigate about barotropic tides non-stationarity or long-term change (linked with ice-cover change, sea level rise, etc...)
- We should model also some minor tides
- We want to continue efforts to make tidal correction errors and HF correction more homogeneous with dedicated efforts toward shallow water/high latitudes regions :
 - bathymetry improvements in coastal/shallow water regions
 - improve data and tide estimation in shallow waters/high latitudes to get better assimilation databases
 - regional modeling configurations studies ...