

POD Discussion Points

Session I

How to reach the 0.1 mm/yr regional orbit accuracy over decadal time scales?

- Rationales
- Altimeter products regional stability on regional scales is currently at 1 mm/yr, but for science consideration better than 0.5 mm/yr is desired, so for the orbit the regional stability must be much less than 0.5 mm/yr (no more than 0.1-0.2 mm/yr). How can this be achieved/validated?
- TVG, geocenter motion, DORIS/GPS/SLR measurement stability, ITRF errors, satellite CoM evolutions, albedo, ...

Can we improve the pre-launch calibration of satellite POD-related characteristics?

- PCO & PCV of the on-board POD receivers
- SRP-related parameters (optical coefficients, surfaces, thermal control effects)
- Knowledge of satellite CoM

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Session II

What can we learn from the yaw/flip attitude regimes for in-flight calibration of LEO satellites?

- Can we recommend a specific calibration maneuver or attitude program to allow calibration of the POD instrument offsets on Sentinel-6 and other future altimeter missions?
- What is necessary in order to take advantage of all three available tracking techniques on an altimeter satellite so as to reach the goal of high radial orbit accuracy (less than 10 mm) and long-term regional stability (0.1-0.2 mm/yr)