The DTU15 MSS (Mean Sea Surface) and DTU15LAT (Lowest Astronomical Tide) reference surface - DTU Orbit (10/11/2019)

The DTU15MSS is the latest release of the global high resolution mean sea surface from DTU Space. The major new advance leading up to the release of this DTU15MSS the use of an improved 4 years Cryosat-2 LRM, SAR and SAR-In data record and the downweighting of ICESat data used previously in the Arctic Ocean for DTU10MSS and DTU13MSS. A new reference surface for off-shore vertical referencing is introduced. This is called the DTU15LAT. The surface is derived from the DTU15MSS and the DTU10 Global ocean tide to give a 19 year Lowest Astronomical Tide referenced to either the Mean sea surface or to the reference Ellipsoid via the use of the DTU15MSS. The presentation will also focus on the difficult issues as consolidating Cryosat-2 onto a 20 year mean sea surface derived using multiple satellites (but only at low to medium latitude) as well as the importance of merging Cryosat-2 data from different operating modes like LRM, SAR and SAR-In as these requires different retrackers. Also the importance of downweighting the ICESat data is highlighted.

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