

## **A MEAN SEA SURFACE FOCUSING FOR MERGING ALTIMETRIC DATA FROM JASON-1 AND ENVISAT SATELLITES.**

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A new mean sea surface (MSS) has been determined focusing in the accuracy along ERS and T/P groundtracks, in order to offer a good precision for the future ENVISat and Jason-1 altimetric missions. Particular attention was paid in the homogeneity of the ocean content of this MSS, called CLS2001, in order to use this surface as a reference for merging several altimetric dataset for the near real time delivery. Moreover altimetric SSH were computed using the most recent correction models. Before MSS calculation, ERS data (5 years repeat cycles & geodetic phases) were corrected from oceanic variability using optimal analysis of T/P sea level anomalies (SLA). These SLA are referenced to the 7 years T/P mean profile. The MSS determinations has been carried out on a 2' grid ( $1/30^\circ$ ) using a local least square collocation technique which provides an estimation error field. This technique take into account altimetric noise, "ocean variability noise" and also along-track biases of the different profiles. Moreover, variable cross-covariance models are fitted in each local estimation box, to better match the shortest wavelength of geoid undulations. A specific algorithm has been developed near the coast, to provide better continuity to continents. Validation shows that the so-called "trackiness effect" are strongly reduced in the MSS, and there is a good restitution of the geoid gradients along ERS-1, ERS-2 and T/P tracks (less than 2 mm/km).The CLS2001 MSS can thus be used for CAL/VAL studies for Jason-1 and ENVISat.