Global Ocean Data Quality Assessment of SARAL/AltiKa GDR products

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The SARAL mission was successfully launched on February, 5th 2013 and cycle 1 started a few days later on March 14th. For more than 2 years, the Ka-band altimeter and dual frequency radiometer on board have been collecting high quality ocean topography measurements. Within the first months of the mission, a first patch (P1) was developed to correct some small anomalies detected in the products and to account for in-flight calibration data. At the beginning of year 2014, a second patch (P2) was produced (applied from cycle 10 pass 407 on OGDR data and from pass 566 on IGDR data) and the all GDR produced before this were reprocessed in order to deliver a consistent dataset to users. This new version of the products provides, among other changes, important improvements regarding radiometer data processing, sea-state bias and wind speed.

Since the beginning of the mission, data quality assessment of OGDR, IGDR and GDR data has been routinely performed at CNES and CLS (as part of the CNES SALP project).

We will present the main results of the data quality assessment over ocean based on SARAL/AltiKa GDR data reprocessed using the homogeneous P2 version. The main data quality metrics presented will include:

Data availability and validity,

Monitoring of the main altimeter and radiometer parameters and comparisons to other altimeter missions such as OSTM/Jason-2,

Mission performance through mono-mission crossovers analysis,

Investigation of inter-mission biases and large-scale regional differences from multi-mission crossovers between SARAL and Jason-2.

Monitoring of the global mean SLA and comparison to Jason-2

Finally, we will present the new product version standard that is currently under development on CNES side.