Demo Products promoting SWIM Calval Team upstream work

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Résumé

SWIM CFOSAT innovative instrument has already shown its reliability and data quality interest through several publications since its launch in end 2018. In January 2021, official data (from L1A to L2) have been fully reprocessed in an so called OP05 version which shows consolidated performances and improvements. But calval analysis keep on going.

Part of the official SWIM Calval Team, Systematic Calval for SWIM CASYS project aims at promoting the calval expertises upstream. On Aviso web site, so called L2P times series are distributed to non expert users in a CMEMS Wave-TAC compliant format.

They address different needs and applications:

Easy comparison to other nadir missions: Since July 2019, nadir 1Hz L2P/L3 are delivered to CMEMS similarly to other nadir missions AltiKa, Jason3, HY2B, S3..., based on a selection of valid data from quality criteria, and bias alignment to buoys networks. They are provided in near real time (3h) and with a 1Hz sampling.

Climat orientated applications: In March 2021 the reprocessed full mission nadir time 1Hz series since November 2018 (6 more months than the L2 products), will be available.

Spectral, direction and wavelength studies, comparison to Sentinel1: In May 2021, a user friendly off nadir spectral product, will be delivered, with preselected valid datasets of directional wave spectra and related parameters and additional information directly derived from the calval expertises upstream.

Coastal and fine scales observations: During summer, a high resolution nadir enhanced product will also be provided at 5Hz to promote the capacity of the mission to observe highly variable zones.

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Thanks to these products, non expert users should be able to have a simple access to the ground segment evolutions, sometimes before their inclusion in the official products.

They aim at easing comparisons and fusion with other nadir missions and to SAR Wavemode L3 products already in the CMEMS catalogue.

This presentation describes the added value, the future improvements planned and the potential of such product for non experts applications.