Altimeter products for the Sentinel-6/Jason-CS mission

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The Sentinel-6 (Jason-CS) mission will be unique in the Jason-series of altimeters. It will be the first of the "reference missions" outfitted with a SAR altimeter. Not only that, it will be the first altimeter that operates in a continuous high-rate pulse mode, such that there is no longer the need to wait 2/3 of the time for pulses to be received, while transmitting only 1/3 of the time, like the altimeters of CryoSat-2 and Sentinel-3. On top of that, Sentinel-6 will be operating in this mode 100% of the time.

This particular operating mode allows simultaneous production of low-resolution mode (LRM) measurements on-board as well as the processing of SAR echoes on-ground. Both types of measurements will be provided in (separate) Sentinel-6 altimeter data products.

The data chain for Jason-CS foresees to have a number of products similar to those of Sentinel-3, while at the same time trying to maintain a good coherency with the Jason-1 and Jason-2 product tree. The aim is to provide near-realtime (NRT) products compatible with those of the previous missions while at the same time providing slow-time-critical (STC) and non-time-critical (NTC) products with all of the variables needed to fully exploit and analyse the SAR mode data.

Similar to the Jason-1/2 products will be produced with three different latencies (3-5 hours, 1-2 days, 60 days) and three levels of complexities (1-Hz data, 1-Hz and 20-Hz data, 1-Hz and 20-Hz data and waveforms). On top of that, Level 1 products will be released containing all the individual echoes in the time domain (L1A) or the measurement data and waveforms without geophysical corrections (L1B). A L1B-S product, with the individual waveforms stacked and geo-located such as is available for Sentinel-3 is under consideration.

This poster will provide an overview of the suggested data products and invites users to give their feedback on the proposed data delivery and data formats.