



High level ENVISAT Radar Altimeter & CryoSat Land/ocean/ice Easy-to-use Synergy products development (HERACLES)

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The ENVISAT radar altimeter mission will be joined soon by CryoSat. The two missions will overfly ice, land and ocean surfaces with complementary samplings, allowing improvements in observing capabilities.

ESA launched the HERACLES project which aims at developing algorithms and merging techniques to provide both scientists and newcomers to altimetry with easy-to-use ENVISAT and CryoSat synergy products, including dual-crossovers and gridded data. A great part of the project is devoted to studies to homogenize ENVISAT and CryoSat level 2 products and to investigate complementarities between the two missions. In particular, the CryoSat specificities in terms of orbit and geophysical corrections are taken into account to allow optimal merging of the two datasets. Furthermore new products such as maps of ice volume penetration derived from the synergy of CryoSat and ENVISAT are studied.

High priority is given to interactions with users during the project with easy-to-use, homogeneous and unified products. A prototype processor has been developed to produce ENVISAT/CryoSat combined datasets. Both usefulness and effectiveness of these merged products will be assessed after the dissemination of demonstration product, based on input and feedback from HERACLES users.