

A preliminary assessment on the performance of the ASAR radial current product in the Agulhas Current region

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Since July 2007, the Agulhas Current has become a region of systematic data acquisition for high resolution Envisat Advanced Synthetic Aperture Radar (ASAR) data products under the ESA funded SAR ocean wind-wave-current project. The surface radial currents derived from ASAR provide a completely new type of information to the scientific community and offer a unique opportunity to further our understanding of the Agulhas Current system.

This work presents a preliminary assessment of the performance of the ASAR radial current product in the Agulhas Current region. Specific features of the circulation observed over the year 2008 are examined. The ability of the ASAR radial current to truly represent the complex and dynamics processes occurring in the Agulhas Current system are discussed based on our understanding of the oceanography in the region. Information derived from the ASAR radial currents is compared to that obtained using other remote sensing datasets such as altimetry, SST and chlorophyll and the advantages and limitation of the ASAR currents over other remote sensing products are briefly discussed.