



Near-real time surface currents monitoring in the Northern Adriatic Sea

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The NASCUM project operates within the framework of the European Union's INTERREG/CARDS-PHARE programme. It is a cooperative effort involving various research institutions from Italy and Croatia: the ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA SPERIMENTALE - OGS (Trieste), the CNR-ISTITUTO DI SCIENZE MARINE - ISMAR, (Venezia), the INSTITUT ZA OCEANOGRAFIJU I RIBARSTVO - IZOR (Split) and the CENTAR ZA ISTRAŽIVANJE MORA "Ruđer Bošković," - CMR (Rovinj).

The project is coordinated by CORILA in Venice, Italy. NASCUM aims to monitor the sea surface currents off the coasts of the Istrian peninsula and the Friuli-Venezia Giulia and Veneto regions in the Northern Adriatic Sea using shore-based High-Frequency (HF) radars for a one-year period, from 2007 to 2008.

The final objective is the mapping of sea surface currents in the area, making the gathered information reliable and available to potential users in real time.

This work focuses on error assessment of the total current vector as derived from two or more independent HF radar stations, providing an alternative approach to GDOP (Geometric Dilution of Precision) problem related to site geometry. Computation methods alternative or complementary to the standard least-square procedures are described and tested versus both in-situ independent measurements and synthetic, simulated data. Results of near-real time quality control of the current maps, based on the continuity with the previous time steps, are also shown.