

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

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NEAR REAL TIME SHIP DETECTION SERVICE

Abstract

An application for ship detection based on satellite image data of synthetic aperture radar (SAR) has been implemented at the DLR site in Neustrelitz. The algorithm for ship detection was developed by the Institute of Methodology of Remote Sensing (IMF) and implemented in the real time processing chain on the Ground Station in Neustrelitz Mecklenburg-Western Pomerania, one location of the German Remote Sensing Data Center (DFD). Both are institutes of the German Aerospace Center (DLR) The processing chain supports the fusion of the ship detection products with auxiliary data like Automatic Identification System (AIS) data from terrestrial and satellite sources. Implemented by using components of the DLR Data Information Management System (DIMS) the near real time service was successfully demonstrated by the ESA project European Maritime Security Services (MARISS) and in different test campaigns for users like European Maritime Safety Agency (EMSA) or the Joint Research Centre (JRC). The ship detection service is currently implemented for the SAR sensors onboard the satellites ENVISAT and TerraSAR-X. Different methods for product delivery like e-mail notification, ftp or WebGis upload are implemented. Dependent upon the spatial resolution of satellite image data, image and other products can be delivered within 15 minutes.