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## OPERATIONAL SAR DATA PROCESSING IN GIS ENVIRONMENTS FOR RAPID DISASTER MAPPING

A. Meroni and T. Bahr  
Exelis Visual Information Solutions, Concorezzo, Italy  
Exelis Visual Information Solutions GmbH, Gilching, Germany

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**Abstract.** Having access to SAR data can be highly important and critical especially for disaster mapping. Updating a GIS with contemporary information from SAR data allows to deliver a reliable set of geospatial information to advance civilian operations, e.g. search and rescue missions. Therefore, we present in this paper the operational processing of SAR data within a GIS environment for rapid disaster mapping. This is exemplified by the November 2010 flash flood in the Veneto region, Italy. A series of COSMO-SkyMed acquisitions was processed in ArcGIS® using a single-sensor, multi-mode, multi-temporal approach. The relevant processing steps were combined using the ArcGIS ModelBuilder to create a new model for rapid disaster mapping in ArcGIS, which can be accessed both via a desktop and a server environment.

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