



Observing the 2005 flood in Ivalo, Finland with the FloodMan system for global near-real time flood monitoring

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The partners in the EU FP5 project FloodMan have developed an integrated processing line for automatical geocoding and surface water detection of EO data from synthetic aperture radar and optical satellites. This flexible system is developed in IDL/ENVI, and is capable of handling most of the radar modes from ERS, Envisat ASAR and Radarsat. The output of the FloodMan production line is routed to a searchable product store, which also can store hydrological data from gauge stations and model based flood forecasts. All data can be accessed via the Internet. The FloodMan web-portal has also functionality for satellite swath planning and ordering. The integrated system is thus a support system for hydrological users that need quick response services for monitoring of flood disasters.

In this paper we will present some results on the spring flood in Ivalo, Finland in May 2005. During the snow-melt season in 2005, the Finnish hydrological institute SYKE forecasted that the river Ivalajoki had a high probability for flooding. Satellite SAR images of the potential flooded areas were ordered through the FloodMan system, around the estimated time for flood peak. Within six hours of satellite acquisition, the processed flood maps were delivered to the hydrological authorities. The next morning the flood maps were provided to the community through mass media.