

## Fast space-borne CATASTROPHY MAPPING to save lives.

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Near-real-time disaster assessment is of crusial importance as a live saving tool in the aftermath of catastrophies. Earthquakes, flooding, landslides require fast and effective action in order to save lives and money.

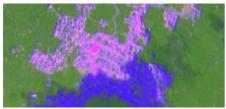
Images of Caribbean hurricanes like *Mitch* (1998) and *Lenny* (1999), earthquakes like the ones near Izmit, Turkey (1999) and in El Salvador (2001), and the floodings and landslides in Venezuela (1999) are still in many a man's mind. A rapid mapping service is what rescue teams and logistic managements require, providing them with real-time, accurate spatial information to direct them, as they search for survivors.

• A fully operational technique is available for worldwide interventions. Selecting space-borne images from archive and fresh, round-the-clock processing and delivering up-to-date maps to rescue teams on-the-spot, to local authorities and relief organisations.

• Change detection maps indicate destruction, be it erosion, flooding, sedimentation, or damaged buildings.

• Produced maps are accurate, georeferenced to any current map projection and are fully GPScompatible for rescue teams to find their way in the destruction area and for local authorities to monitor progress being made and measures being taken.

• Delivery of the change-detection maps is real-time, as from satellite images being available, for the



City of Santiago de Maria, El Salvador, its southern part ruined in the December 2000 earthquake. Damage in blue.

rescue teams to be on the road early and to work fast.

• Maps may equally be used in the rehabilitation phase in the aftermath of a catastrophe.



Maiquetia Airport, Venezuela, after mud disaster, December 1999. Flooded areas in blue, erosion and sediments in red.

• In case of catastrophies, you may call us 24/24 hours, but it may be usefull to design strategies well in advance. To help save more lives.

## References

[1] Yakam Simen, F. et al, 2000. Evaluation of Hurricane "Mitch" damages in Central America. Invited paper at SCI 20000, Orlando. July 23-26,

[2] Nezry, E. et al, 2000. The Devastation of Venezuela by Heavy Rains in December 1999: Assessment of the Situation using ERS InSAR Tandem Data and SPOT Images. Invited paper at ERS-ENVISAT Symposium, Gothenburg, Oct. 16-20.
[3] Nezry, E. et al, 2001. Breaking new grounds for remote sensing in support of disaster relief efforts: detecting and pinpointing earthquake damages in near-real-time(El Salvador, January 2001). Invited paper at SPIE's 8<sup>th</sup> International Symposium on Remote Sensing, Toulouse. September 17-21.
[4] BBC News Online's Ivan Noble, February 2001. Aid from space. London, UK.

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