

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

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RADARSAT INSAR MONITORING OF GEOHAZARD AREAS IN SUPPORT OF CONSTRUCTION
PROGRAMS

Abstract

In this paper, we present the results of several case studies using RADARSAT-2 InSAR monitoring techniques of active landslides triggered by earthquakes and other processes. Our results have shown that InSAR techniques are useful to produce risk maps that will facilitate the planning of strategic transportation and energy corridors as well as reconstruction efforts in earthquake damaged areas in Haiti. The recent 7.5 magnitude earthquake in Haiti has produced extensive damage to buildings and infrastructure. In addition, this earthquake has produced hundreds of new landslides on deforested slopes near populated areas. We have used RADARSAT InSAR maps to assess the potential of these deforested slopes with active landslides to produce mudslides during hurricane type heavy rains. In other areas in Canada we also use similar InSAR image products to redirect strategic transportation routes from the effects of active landslides.

Keywords: RADARSAT, Interferometry, Reconstruction Programs, Landslides, Haiti.