Abstract Details

Corresponding Author : Dr. John LaBrecque (John.LaBrecque@nasa.gov)

Organization: NASA

Category: Interdisciplinary Working Groups

Paper ID: 57-IWG-A1748

Title: (IWG3A) Space Geodetic Advances and their Application to Asia Pacific Arc Natural Laboratory

Abstract:

Space based and airborne optical and geodetic remote sensing data when combined with in situ natural laboratory data will provide the best opportunity to advance both predictive and response capabilities for geohazards. Unfortunately these important remote sensing capabilities remain difficult to obtain, restricted in distribution, and rarely available on time scales useful to disaster related research and applications. The convergent margins that surround the North Pacific are the sites of some of the worlds most powerful earthquakes and volcanic eruptions. This region is a focus of major global economic activity. Therefore, geohazards research, mitigation and management should be of paramount importance in this region. There are a number of natural laboratories in the region with significant on-going investment for in situ observations and modeling efforts by the global scientific community including KVERT, EarthScope, and GEONET. We propose that the APSG support the development of a pilot program of geo-hazards natural laboratories. We propose that the national agencies of the APSG contribute both in situ and remote sensing data related to topography, surface deformation, thermal anomalies and atmospheric properties within the APANL and EarthScope natural laboratories. The pilot program should strive for quick acquisition, low latency data access, and unrestricted distribution of essential data sets. The APSG should work to develop a community based data distribution system modeled after the highly successful International GPS Service. The objective is to significantly advance our knowledge of and response to geohazards, including the development of forecasting skills for earthquakes and volcanic eruptions.

Presentation Mode: Oral

Keywords: Geohazards, EarthScope, APANL, remote sensing

Status: Pending.

Co-Authors

No.	Title	First Name	Family Name	Organization
1	Dr.	Craig	Dobson	NASA