

**OVSICORI's Southern Costa Rica Geodynamic Control Network:
The opening of a Pandora's Box**

Marino Protti, Víctor González, Enrique Hernández,
Cyril Muller, Daniel Rojas and Hairo Villalobos
Observatorio Vulcanológico y Sismológico de Costa Rica
Universidad Nacional

With the expectation of repeating the success in Nicoya, the Costa Rica Volcanological and Seismological Observatory at the National University (OVSICORI-UNA) decided to improve the coverage and gain of its geodynamic control network in southern Costa Rica. What started as an attempt to anticipate the rupture of the next Osa-Burica earthquake is growing into a multi purpose network. Although understanding all processes that occur in that region requires many years of recordings, we will show preliminary results of very well recorded earthquakes. Our expectations now are to use this network to address the following issues: 1) geometry and distribution of inhomogeneous coupling along the Cocos-Panama subduction interface; 2) forearc response to the subduction of the Cocos Ridge and other smaller bathymetric features; 3) characteristics of the subducted portion of the Panama Fracture Zone under Burica peninsula; 4) the geometry and speed of faults along which the Coastal Range overthrusts the forearc; 5) the internal deformation of both, Cocos and Panama plates, as a response of sub-flat subduction; and 6) mapping of small shallow local faults that could represent a threat to local communities; among others.

Session: Geodynamic Control Networks in Latin America and the Caribbean.