

Rotations of GPS vectors near subducting buoyant highs: How are they expressed geologically?

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A compilation of all GPS vectors measured in the Caribbean beginning in the late 1980s reveals a similar pattern of vectors with large rotations in the vicinity of two subducting bathymetric highs: the Beata ridge south of Hispaniola and the Cocos Ridge beneath Costa Rica. Both areas have experienced major earthquakes in the last 20 years including the Haiti earthquake of 2010. Geological maps and paleomagnetic data are shown to point out how the rotations might be expressed geologically.