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ABSTRACT

**RECENT ON LAND TRINIDAD EARTHQUAKES AND THEIR
IMPLICATIONS**

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On 2006/09/29 an earthquake of duration magnitude 5.8 occurred on land Trinidad, near the north coast, with an associated aftershock sequence of about 60 events greater than magnitude 2.0. The largest aftershock, magnitude 5.3, occurred 5.25 hours later. This episode follows a previous on land sequence, which occurred in late 2004 to 2005. The main shock of that sequence was located near the east coast and was of magnitude 5.5. The largest aftershock was of magnitude 5.1 and followed the mainshock by 8.5 hours. The events caused relatively minor damage associated with MMI VI and VII respectively. The low level of damage seen is considered to be a consequence of the depths of 50 km and 30 km respectively at which the events occurred. This latest sequence appears to be reinforcing a trend of elevated, escalating earthquake activity on land Trinidad that began in 2001. Should this be the situation, the magnitude of the mainshock of the next series of significant earthquakes on land Trinidad may be above magnitude 6.0, if the activity, up to this time, is below the maximum, of which the system is capable.