

ANOTHER SUMATRA BIG-QUAKE IN THE OFFING?

There has been some speculation and further thoughts on the possibility of another big earthquake of greater than 8.7 magnitude occurring along a patch (that ruptured in 1833 in a major Mw 8.7 event) located farther south along the Sunda Trench. Grasso and Voisin (2005) speculate on the factors that favour such a prediction as

“ (1) the increase in seismicity rate after the 28 March event due to its own aftershock sequence enhances the probability for another big quake to occur, according to Gutenberg-Richter relationship, and (2) elastic and viscoelastic stress transfers enhance the triggering of a major rupture along the megathrust zone (Freed and Lein, 2001, McCloskey et al. 2005). If the same mechanism that triggered the 28 March event i.e., an after shock grows to the size of a large main shock, were to apply farther south on the former 1833 Mw 8.7 event area, the next Indonesian Big one may be expected to occur there within a few months”

M S RAO

References

- FREED, A M and LIN, J (2001) Delayed triggering of 1999 Hector Mine Earthquake by Viso-Elastic Stress, *Nature*, v 411, pp 180-183
- GRASSO, L R and VOISIN, C (2005) The Largest Aftershock Ever Recorded? *EOS*, v 86, no 22, 2005, p 211
- MCCLOSKEY, NALBANT, J S S and STEARY, S (2005) Earthquake risk from co-seismic stress, *Nature*, v 434, p 291

FORECASTING EARTHQUAKES

“The difficulty of predicting individual earthquakes accurately often obscures the progress made by seismologists studying the probability of earthquake occurrence. A new approach aims to keep the public in touch with what seismologists know. To coincide with the launch of a new short-term earthquake forecasting system for California, a new website (pasadena.wr.usgs.gov/step) gives a measure of the probability of strong shaking anywhere in California within the next 24 hours. The methodology combines an earthquake occurrence model based on fault data and historical earthquakes with a model of clustering. The resulting forecasts will provide a better understanding of the daily changes in earthquake hazard to the public, media and emergency planners.”

[Extracted from Nature, v 435, no 7040, 19 May 2005, p ix. Also see pp 328-331 of the same issue for the detailed article on the topic by Mathew C. Gerstenberger and others — Editor]