

News Release

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Guy Carpenter Study Challenges Views of Seismic Risk in Japan

New York, October 30, 2013 – The Tohoku rupture of 2011 changed the market’s understanding of seismic risk in Japan. The Mw 9.0 event occurred in an area where earthquakes of up to only Mw 8.4 were thought possible. Following the event there was increased publicity surrounding the so-called Tokyo Fragment theory and discussion around the potentially increased probability of earthquakes near Tokyo.

In order to bring objective balance to the discussion surrounding certain views on Japan earthquake risk in this post-Tohoku environment, Guy Carpenter & Company, LLC, the leading global risk and reinsurance specialist and member of Marsh & McLennan Companies (NYSE: MMC), is sponsoring a review of the available research literature by Professor Paul Somerville of Risk Frontiers.

Stress Accumulation and Release near Tokyo

While there is general agreement among the scientific community that stress increases near Tokyo have occurred, preliminary research suggests that there are divergent theories regarding how this increase in stress influences earthquake risk in Tokyo. Although it has been widely publicized that computations performed by Toda and Stein (2013)¹ suggest long-term increases in risk by a factor of x2.5, it appears less widely known that these views are contested by those of Uchida and Matsuzawa (2013)² who suggest that the stress increase caused by the Tohoku earthquake is being released aseismically, and thus not increasing long-term risk near Tokyo.

QUOTE

James Nash, CEO of Asia Pacific Region, Guy Carpenter & Company

“The integration of scientific research in a balanced way is critical to our understanding of risk and the risk management decisions faced by insurance companies as they evaluate the risk and reward trade off.”

1 Toda, S. and Stein, R. (2013), The 2011 M=9.0 Tohoku-Oki earthquake more than doubled the probability of large shocks beneath Tokyo, Geophysical Research Letters, 40, doi:10.1002/grl.50524.

2 Uchida, N. and Matsuzawa, T. (2013), Pre- and post-seismic slow slip surrounding the 2011 Tohoku-Oki earthquake rupture, Earth Planetary Science Letters, in press.

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To view the full briefing, visit:

<http://www.guycarp.com/content/guycarp/en/home/knowledge-resources.html>

TAGS/KEYWORDS

Guy Carpenter, James Nash, Japan, Earthquake, Tohoku

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