Correlation of giant earthquakes with the lunar phase in seven Indo-Pacific subduction zones and around Mongolia

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Abstract

Variation in the approximately semidiurnal tidal force affects earthquake occurrence. This paper statistically demonstrates that giant earthquakes occur at lunar phases specific to particular seismic zones. Careful observation during the lunar cycle, especially when seismicity is occurring, should significantly reduce the damage from giant earthquakes. A case study in which a giant earthquake occurred after seismicity was concentrated within the specific lunar phase is discussed.

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