



Four Examples of Short-Term and Imminent Prediction of Earthquakes

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We show here 4 examples of short-term and imminent prediction of earthquakes in China last year. They are Nima Earthquake(Ms5.2), Minxian Earthquake(Ms6.6), Nantou Earthquake (Ms6.7) and Dujiangyan Earthquake (Ms4.1)

Imminent Prediction of Nima Earthquake(Ms5.2)

Based on the comprehensive analysis of the prediction of Victor Sibgatulin using natural electromagnetic pulse anomalies and the prediction of Song Song and Song Kefu using observation of a precursory halo, and an observation for the locations of a degasification of the earth in the Naqu, Tibet by Zeng Zuoxun himself, the first author made a prediction for an earthquake around Ms 6 in 10 days in the area of the degasification point (31.5N, 89.0 E) at 0:54 of May 8th, 2013. He supplied another degasification point (31N, 86E) for the epicenter prediction at 8:34 of the same day. At 18:54:30 of May 15th, 2013, an earthquake of Ms5.2 occurred in the Nima County, Naqu, China.

Imminent Prediction of Minxian Earthquake (Ms6.6)

At 7:45 of July 22nd, 2013, an earthquake occurred at the border between Minxian and Zhangxian of Dingxi City (34.5N, 104.2E), Gansu province with magnitude of Ms6.6. We review the imminent prediction process and basis for the earthquake using the fingerprint method. 9 channels or 15 channels anomalous components - time curves can be outputted from the SW monitor for earthquake precursors. These components include geomagnetism, geoelectricity, crust stresses, resonance, crust inclination. When we compress the time axis, the outputted curves become different geometric images. The precursor images are different for earthquake in different regions. The alike or similar images correspond to earthquakes in a certain region. According to the 7-year observation of the precursor images and their corresponding earthquake, we usually get the fingerprint 6 days before the corresponding earthquakes. The magnitude prediction needs the comparison between the amplitudes of the fingerprings from the same channel. In this way, the Minxian earthquake is successfully predicted.

Short-Term and Medium-Term Prediction of Nantou Earthquake (Ms6.7)

According to the analysis of the solar activity taking the sunspot number as the main factor, the two-time method of magnetic storm related to lunar phase, the analysis of the earthquake cloud and the intersection point of magnetic anomalies, We predicted that there would be an earthquake with magnitude of $ML6.2 \pm 0.4$ occurring in Taiwan (24 ± 0.2 , $121 \pm 0.2E$) before the mid-month of June, 2013. On May 27th, 2013, Jianwen Huang raised the alarm that the stresses were concentrating in Nantou county of Taiwan. On May 29th, he further raised the special alarm that intensive stresses were continuously concentrating. At 12:34 of June 2nd, 2013, a Ms6.7 ($ML6.3$) earthquake occurred in Nantou of Taiwan with the epicenter at (23.87N, 121.00E).

Short-Term Prediction of Dujiangyan Earthquake (Ms4.1)

At 17:16, June 3rd, 2013, on the basis of comprehensive analysis of the correspondence between cloud and ground observation by Dabing Wu, the strip degasification along the north part of the Longmenshan fracture zone and the satellite gravity anomalies of the area, Zuoxun Zeng made a prediction that the epicenter would be in (31N, 104E), the magnitude would be in $Ms5.5 \pm 0.5$, the occurring time would be in 2 months. At 7:39, July 8th, 2013, an earthquake occurred at the border between Dujiangyan city and Wenchuan county (31.3N, 03.6E) with

magnitude of Ms4.1. We name it Dujiangyan earthquake in the article.