

**Date:** Sat, 10 Feb 2003  
**From:** "Zhonghao Shou" <zhonghao\_shou@yahoo.com>  
**Subject:** Re: Earthquake predictions  
**To:** dharrington009@earthlink.net

Alan, Thank you very much for the response. I hope you to understand my mind. I have been working in a very hard condition for about 10 years. The main supporter is my daughter who shares a part of her scholarship to me. It is to say that I could not get the data I need, but have to accept all outside problems as mine. Moreover, I have to tolerate all doubt, which often makes my mind conflict.

My suggestion is that first, suppose all data of the USGS to be in Rank A with its standard error 0.1 although many of them are in Rank B, C, D, and even out of the rank, and some data in Rank A have error over 0.1. Second, keep the first decimal of a datum and plus and minus 0.1 as the boundary region, for example, the boundary region of "15.678N Rank C" is 15.5~15.7N although Rank C has a standard error 0.5. Third, a prediction passes if it touches the region, otherwise it fails even if just having an error 0.1 to the boundary region. Forth, if all three windows of time, area, and magnitude of a prediction are correct, the window touching the boundary region needs to extend to just contain whole region. For example, if a latitude window is 12~15.5N, it extends to 12~15.7N, while a window is 15.7~17N, it extends to 15.5~17N, so the whole region 15.5~15.7N is no more no less in the window, and the probability reaches its true number.

I can not suggest him our error region 0.2: 0.1 the USGS proclaimed for Rank A, and the other 0.1 for my relying on the data of the USGS as the standard of my predictions. Although it is reasonable, I can not suggest because I am not the government.

About aftershock, I think that a scientific definition is essential. This is why I discussed with you about how to divide three quakes of magnitude 6.5, 7.0, and 7.5 after a M7.0, and [how long aftershock can last](#). In my opinion, if a theme does not have a clear scientific definition, its conclusion, including formula, is unreliable. However, if that Jones (not you) deals with my key question as both you and us for his formula, it will not make a big difference for probability calculation.

Anyway, you are interested in the phenomenon, a M7 after another M7, and I would like to offer you a few examples.

Example 1:

- (1) 6/17/2000 15:40 63.92N 20.26W [6.6M](#) Iceland;
  - (2) 6/21/2000 0:51 63.90N 20.67W [6.6M](#) Iceland.
- The USGS reported them as [the largest there since 1912](#).

Example 2:

- (1) 10/13/1993 2:06 5.889S 146.02E 6.4mb(USGS) [7Ms](#)(USGS) 7.2Ms(BRK) 6.9Mw (HRV)
- (2) 10/25/1993 10:27 5.909S 145.99E 6.3mb(USGS) [7Ms](#)(USGS) 7.1Ms(BRK) 6.7Mw (GS)

There are many others. In fact, my prediction No. 19, 20, 25, 34, 42, and 51 in Table 1 and No. 2 in Table 4 reveal the similar examples just with smaller magnitudes. The couple of No. 2 of Table 2 was the only earthquakes of magnitude  $\geq 4$  in the fine area window since the beginning of the database in Jan. 1, 1990 at least. Moreover, it was also the only earthquakes of magnitude  $\geq 4$  in the fine time window within the region 29~44N, 31~38E, a region 637 times larger than the predicted area. I hope you enjoy those examples. If you need more, please tell me. I will mail you more.