

What does the area of atmospheric gravity wave which appears short-term before the earthquake show?

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The author had presented the method of earthquake prediction by means of the atmospheric gravity wave (ripple-like cloud) observed from space at 2004 Fall meeting of the seismological society of Japan

The outline is as follows.

a. The magnitude is determined by the area of the atmospheric gravity wave (ripple-like cloud).

$M = \log kA$

where M: magnitude

A: area in km²

k: coefficient in proportion to area

500000; k=2, 3400000; k=3, 25000000; k=4

b. The precursor time is determined by the magnitude as follows.

$T = 6.9M - 28.4$

T: days since the first appearance of the atmospheric gravity wave

c. The epicenter is not easy to determine because of large scale of appearance of the atmospheric gravity wave (ripple-like cloud). In many trench type earthquakes the epicenter has a tendency to situate at the east end of the area of the atmospheric gravity wave around Japan.

2. The area of the atmospheric gravity wave is compared with the Matsuda's formula concerning of active fault and with the area of crust deformation area which Dobrovolsky et al. (1979) proposed.