

The stealth and one rush eruption model of Daikon-island volcano

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I. The need of the model

Daikon-island volcano in Shimane Japan is a small stratovolcano (# 1) composed of basalt lava. And according to the data (# 2) of the HP of the Volcanological Society of Japan, the last eruption of Daikon-island volcano is 120 thousand years before now. (see supplement)

Daikon-island volcano is considered safe, so within 300m of Otsuka-yama which is pyroclastic cone of Daikon-island volcano there are a kindergarden, a junior-highschool, and a town-office. Before the western Tottori earthquake I agree it was safe, but after the western Tottori earthquake I think the risk of volcanic disaster became higher. For the extension of the line of the aftershock region is exactly toward Daikon-island.

To make it clear that the risk of the volcanic disaster of Daikon-island, I made the stealth and one rush eruption model of Daikon-island volcano.

II. Assumptions of the model

Assumption 1 : It is difficult to catch the precursory phenomena of eruption of Daikon-island volcano.

[Comment] The rise of small mass of low viscosity magma will be hard to observe.

Assumption 2 : In case of the eruption of Daikon-island volcano, the magma will go up with one rush.

[Comment] If small mass of the basalt magma which easily solidify in high temperature would go up slowly through a cold vent, the magma should solidify. So, in case of the eruption of Daikon-island volcano, the magma will go up with one rush.

Assumption 3 : There is a possibility that a large earthquake will cause the eruption of Daikon-island volcano.

[Comment] Daikon-island volcano is not on a hot-spot nor on a volcanic-front where steady magma rise exist. So, Daikon-island volcano is more easy to be thought that there is a possibility of a large earthquake will cause the eruption.

III. Supplement

According to the earth-scientific data (# 2) of HP of the Volcanological Society of Japan, the last eruption of Daikon-island volcano is 120 thousand years before now, but according to vegetation and land-usage data of archives of 8th century (# 3), there is a room of doubt of the last eruption age by the earth-scientific data (# 2) of the HP of the Volcanological Society of Japan.

(# 1) Takao Tokuoka : Daikon-jima, Yumigahama no chikasuumonndai

<http://vege1.kan.ynu.ac.jp/nakaumi/3/tikasui.htm>

(# 2) The HP of the Volcanological Society of Japan.

<http://www.geo.chs.nihon-u.ac.jp/tchiba/volcano/catalog/volc-43.htm>

(# 3) Izumonokuni-fudoki