

The Activity of Kamchatka Volcanoes and theirs Danger to Human Society

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There are 30 active volcanoes in the Kamchatka, and several of them are continuously active. In the XX-XXI centuries 17 volcanoes of Kamchatka erupted. During this time, 183 volcanic eruptions occurred, including three catastrophic eruptions (Ksudach, 1907; Bezymianny, 1956; Sheveluch, 1964). Strong explosive eruptions of volcanoes were the most dangerous for human society because they produce in a few hours or days to the atmosphere till 2-3 cubic kilometers of volcanic products. Ash plumes and the clouds, depending on the power of the eruptions, the strength and wind speed, to traveled thousands of kilometers from the volcanoes for several days. Any territory of the Kamchatka Peninsula has repeatedly been exposed to ash falls, the thickness of ash in settlements was from less than 1 mm to 4-5 cm. Strong explosive eruptions of volcanoes Sheveluch, Klyuchevskoy, Bezymianny, Kizimen, Karymsky, Zhupanovsky, Avachinsky, Kambalny were the most dangerous for air travel not only over Kamchatka, but also hundreds of kilometers away from the peninsula.

The strong explosive and effusive eruptions of Sheveluch, Klyuchevskoy, Bezymianny, Kizimen and the other were often accompanied by the formation of hot mud flows (lahars), which sometimes disrupted transport communications (roads, bridges) of nearby settlements.

Scientists of KVERT monitor Kamchatkan volcanoes since 1993. Thanks to satellite monitoring of volcanoes carried out by KVERT, several explosive eruptions were predicted in the XXI century, and early warnings were made to the population about possible ashfalls in settlements and about hazard to aviation.

Keywords: volcano, eruption, Kamchatka, danger, population