

Morphometry and dynamic of the destruction of Pleistocene-Holocene cinder cones in Kamchatka

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Cinder cones are the simplest and most frequently found forms of volcanic landscape. Usually they are located in the areas of monogenetic (areal) volcanism, may have different age and structure; they may be located in different climatic conditions and represent the perfect possibility to study the processes of their destruction and changes of landscape from the moment of the cinder cone formation until the current time.

Here we present the morphometric parameters of more than 200 monogenetic cinder cones in Kamchatka. The methodic of the calculations of the main morphometric characteristics is unified on a base of the digital models of landscape of the various spatial resolution; the estimates of the precision of the models are done. On a base of the satellite interferometry (ALOS PALSAR) the parameters of deformations of the contemporary cinder cones of the Big Fissure Tolbachic eruption are evaluated. The dependence of the morphometric characteristics of cinder cones and their age is determined.