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Kamchatka Volcano Explosive Eruptions in 2017 and Danger to Aviation

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There are 30 active volcanoes in the Kamchatka, and scientists of KVERT monitor these volcanoes since 1993. In 2017, six volcanoes had explosive eruptions.
Strong explosive eruptions of volcanoes are the most dangerous for aircraft because they can produce in a few hours or days to the atmosphere and the stratosphere till several cubic kilometers of volcanic ash and aerosols. Ash plumes and the clouds, depending on the power of the eruption, the strength and wind speed, can travel thousands of kilometers from the volcano for several days, remaining hazardous to aircraft, as the melting temperature of small particles of ash below the operating temperature of jet engines.
The eruptive activity of Sheveluch volcano began since 1980, and is continuing at present. Strong explosive events of the volcano occurred: one in February, August and October, two in April, July, November and December, four in September, five in May, nine in June; ash plumes rose up to 10-12 km a.s.l. and extended more 4000 km from the volcano. Activity of the volcano was dangerous to international and local aviation.
A moderate explosive eruption of Klyuchevskoy volcano lasted from 02 March till 30 August, and after three months of relative lull, the eruptive activity of the volcano resumed in December. Ash plumes rose up to 6-8 km a.s.l., and extended more 600 km from the volcano. Activity of the volcano was dangerous to international and local aviation.
Eruption of Bezymianny volcano began from 05 December 2016. Three strong explosive eruptions occurred in 2017: the first began on 09 March (ash up to 7-8 km a.s.l.); the second began on 16 June (ash up to 12 km a.s.l.); the third began on 20 December (ash up to 15 km a.s.l.). Two explosive eruptions were predicted by scientists of KVERT: the second - 18 hours before the event (http://www.kscnet.ru/ivs/kvert/van/?n=2017-136); and the third - 35 minutes before the event (http://www.kscnet.ru/ivs/kvert/van/?n=2017-266). Activity of the volcano was dangerous to international and local aviation.
Karymsky volcano was in a state of relative rest in January-May, but from 03 June its episodic explosive activity was resumed. Ash plumes rose up to 4-5 km a.s.l. and extended more 400 km from the volcano. Activity of the volcano was dangerous to local aviation.
One explosive event at Zhupanovsky volcano occurred at 23:03 UTC on 16 September. The gas-steam column with some amount of ash rose up to 7 km a.s.l. Activity of the volcano was dangerous to local aviation.
The first historical eruption of Kambalny volcano lasted from 21:10 UTC on 24 March till 11 April. Ash plumes rose up to 7 km a.s.l. and extended more 4000 km from the volcano. Activity of the volcano was dangerous to local aviation.
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