

KAMCHATKA TERRITORY



eruptions, which everyone who wishes can observe today, are also very impressive.

TOLBACHIK'S WAKE-UP

"A picture is worth a thousand words". This is just about Tolbachik Volcano. The volcano came alive after keeping silence for almost 40 years.

The eruption of Tolbachik is not of a summit type when the smoke and the ash are thrown out from the top of the volcano but of a fissure one. It is characterized by a discharge of huge amount of lava. Such eruptions are also called "touristic" ones because they are relatively safe and form colorful lava rivers. In case of favorable conditions, it is possible to fly close enough to the crater or hover over the lava.

Tolbachik Volcano, namely the active Plosky Tolbachik and extinct Ostry Tolbachik, represents the largest volcanic center of the south-west sector of Klyuchevsky group of volcanoes. The southern zone stretches to Nikolka Volcano for 45 – 50 km and it is called the Tolbachinsky dol. Up to 80% of all centers of activity in the form of numerous cracks and chains of the slag cones, forming a volcanic ridge, are concentrated along the axial part of the dale, in a narrow strip (3 – 4 km).

There are two recorded and confirmed eruptions on Tolbachinsky dol. The first one took place in May 1941. At that time the slag cone about 200 m high was formed within a week, 0.07 km³ of pyroclastics was thrown out, the length of the lava stream reached 5 km, and the lava volume was about 0.03 km³. The second eruption lasted from July 1975 to December 1976. Eight slag cones up to 300 m high was formed within a year and a half, about 1.0 km³ of pyroclas-

Far Eastern Federal District

Kamchatka territory occupies the territory of the peninsula of Kamchatka, adjacent part of the continent, Karaginsky Island and Commander Islands. Petropavlovsk-Kamchatsky, 8,200 km from Moscow, is the central city of the region.



Фото: Александр Биченко

VOLCANOES OF KAMCHATKA

There are more than six hundred active volcanoes and thousands of extinct ones on our planet. The Kamchatka volcanoes represent some of the main natural attractions of Russia. Thirty active and about three hundred extinct volcanoes as well as more than 150 thermal and mineral sources are concentrated in this limited area. This high concentration of volcanoes makes Kamchatka different from the other volcanic regions of the world. And there are few places on the planet which can boast such beautiful and diverse volcanoes.

Volcanic eruptions really stun everyone who happens to become a witness of this natural phenomenon. The strong elements of fire fascinate forever: flows of scorching lava, thunderous volleys, fireworks of fiery stones... Consequences of

Tolbachik is a volcanic complex on the Kamchatka peninsula, situated in the south-west part of Klyuchevsky group of volcanoes. Its structure includes two stratovolcanoes merged with the bases: Ostry (Sharp) Tolbachik of 3,682 m high and Plosky (Flat) Tolbachik of 3,140 m high, which are located on a pedestal of an ancient volcano.

Plosky Tolbachik came alive in the evening on November 27, 2012. Volcanologists assigned an orange aviation alert code to it. It means that the volcanic ash which rises to 10 km above the sea level, is dangerous to planes of both domestic, and the international airlines. But it cannot stop crowds of people who want to witness this rare event.



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tics was thrown out, the length of lava streams reached 9.5 km, and the lava volume was 1.2 km³.

“JUBILEE ERUPTION”

The latest fissure eruption on Tolbachinsky dol started on November 27, 2012 and is still going on. In spite of the fact that flows of the scorching lava destroyed the “Leningradsкая” and “Tolbachinskaya” bases located at the bottom of Plosky Tolbachik, volcanologists consider November 27 their new professional holiday. The rushing and long lava streams of the fissure eruption on Tolbachinsky Dol are really impressive. Lava produced by the eruption exceeds by four times the volume of the one generated during Northern breakout of the Big Fissure Tolbachik Eruption, and by ten times – the volume of the one generated during the Southern breakout of the same well-known eruption. The area of the lava fields, formed in the first days of the volcano eruption is comparable with the area of Yelizovo town.

The eruption of Tolbachik, named “Jubilee Fissure Tolbachik Eruption”, is still continuing. In the volcanic crater a lava lake was formed. The relief of the surrounding area dramatically changed due to lava accumulation up to 15 m high.

Notwithstanding the nature surprises, Kamchatka continues to receive hundreds of lovers of extreme lovers, wishing to see the live volcano with their own eyes. Its glow is visible from a 50-km distance. But adventure-seekers, risking their lives, try to get as close to the streams of the red hot lava as possible. Flow of the incandescent lava river from the height of a five-floor house is a unique sight. You get a feeling that the earth came alive. Meanwhile, the ash poses a threat not only to aviation. Its small particles are



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as sharp as a razor and can easily cause injuries. Those volcanologists that regularly fly around the mountain and take samples of the lava, ash and gases, say that glass represents the greater part of the mass spitted out from the muzzle.

To ensure safety of the tourists, keen to visit live Plosky Tolbachik in Kamchatka, local authorities started to create the necessary infrastructure. Volcanologists and EMERCOM representatives will get stationed in the base camp. In the same place it will be possible to set up a tent camp for touristic groups. As it is impossible to forbid visits to the active volcano, the Kamchatka authorities seek to make the extreme tourism route as safe as possible. Unorganized tourist groups that travel to Tolbachinsky dol - an area of lava streams spreading - at their own risk, can easily get into trouble because it becomes increasingly difficult to predict the behavior of a lava stream.

The erupting Tolbachik still poses a threat to those who wish to see this beautiful and fascinating sight. Nevertheless, the interest in it is growing. One of the safest

ways to see the eruption is to do it from a helicopter. You can enjoy a unique view of Tolbachik Volcano from a bird's eye view. You will not see such fantastic beauty and will not witness this rare and surprising natural phenomenon so closely anywhere else in the world. The Kamchatka land left one more trace in the history of mankind: eruption of Plosky Tolbachik was given a name which occurs extremely seldom. Now it is called “Fissure Eruption of the 50th Anniversary of the Institute of Volcanology in the Tolbachinsky dol”.

Coming to this hot land, you will leave here a part of your heart forever, and really fascinating Kamchatka landscapes will haunt your dreams for a long time.

