

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

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KILAUEA REPORT No. 809

WEEK ENDING JULY 20, 1927

Section of Volcanology, U. S. Geological Survey:

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The flow of lava into the pit of Halemaumau has been diminishing during the week. The volume of new lava poured into the pit on July 7, the first 24 hours of the outbreak, represents about half of the total accumulated to date. The flowing from the southwest cone has been continuous, though fluctuating in amount, until July 19. The top of the cone has in general remained open towards the southwest, parts of its walls or roof being blown off from time to time. On July 19 the flow ceased during part of the day, though lava flowed from the cone at 3 p. m. and during the evening at about 9 p. m. Inspection of the pit on the morning of July 20 showed no lava flowing; no active lava was visible down the throat of the cone, and only a very thin trace of blue fume was issuing from its mouth.

The number of earthquakes recorded during the week ending July 20 is 18. These were all local and very feeble. Harmonic tremor does not show on this week's seismograms. In addition to the above local earthquakes, a feeble teleseism is recorded; its long wave beginning at about 1:34 p. m. July 14. Tilt has accumulated moderately towards the northwest.

SOME ALEUTIAN VOLCANOES

In a wireless message from Dutch Harbor, Alaska, Dr. Jaggard tells of a most interesting fortnight spent in the western Aleutian Islands. He went with the Coast Guard Cutter to Attu, and returned to Dutch Harbor July 8, having seen some 20 big volcanoes on the trip. He is high in his praise of the region as a field for volcanological study. Gareoli, an island-volcano over 5,000 feet in height, is a cone from which yellowish steam is issuing. Tanaga, a wonderful composite cone covered with cinder, is the eastern neighbor of Gareoli. Semisopchnoi, to the west of Gareoli, is shown on the chart as having "burning volcanoes." The present report speaks of sedimentary rocks, such as sandstones and conglomerates, in abundant occurrence on the south side of this Aleutian belt, which are perhaps comparable with the rocks found near Unga.

Bogoslof Volcano is of especial interest. The island, which is the top of the volcano, has changed its formation many times. Passing ships have reported from time to time the appearance of new summits, or the disappearance of old ones, and an occasional eruption has been witnessed from a distance. Sidney Powers, in the "Geo-

graphical Review" September, 1916, gives a brief sketch of the history of the volcano. He gives the date of the first formation of the island as 1768. Another island developed nearby in 1796, and still another in 1883. These were at first separate islands, the last mentioned being a precipitous plug pushed up from a volcanic orifice to a height of 800 feet above sea level. These islands changed in form during the years up to 1906, when another plug, 2,000 feet in diameter and 400 feet in height above the ocean, was pushed up into the group. A few months later this was partially blown away, and still another plug rose by its side, being in turn partly destroyed by an explosion in 1907.

In the Technology Review, Vol. X, No. 1, is the "Journal of the Technology Expedition to the Aleutian Islands, 1907," of which expedition Dr. Jaggard was himself in charge. Bogoslof was visited in August, 1907, and the Journal has a number of photographs of the steaming summits, which at that time had become joined together by volcanic additions and by sand and gravel bars into a single island. Sketch maps show the development of the island as reported by various observers up to that time.

Activity since 1907 has been only casually observed by passing ships or by distant witnesses on the nearer neighboring islands, Unalaska and Umnak. Dr. Jaggard's recent visit has shown him the result of the many active phases since 1907. He reports a new steaming lava dome, 1,200 feet in diameter and 200 feet high, which is surrounded by a salt lagoon, in which the water is warmed to 75° Fahr. Around the lagoon is a complete ring of gravel and sand, which forms the connecting link between the summits that were separated by open channels prior to 1906. New Bogoslof or Grewingk Island, the northern peak that appeared in 1883, he reports much changed in form since 1907. Old Bogoslof, the peak of 1796, is now surrounded by a high bank of gravel. The island is tenanted by great numbers of sea-lions, a count up to 400 having been made. Murres and other nesting birds are present by the million. The latest phase of volcanic activity probably began about July, 1926, and increased thereafter with occasional explosions which were seen from distant villages on the neighboring islands. This recent activity was probably very similar to the eruption of 1906. There is no continuous accurate record being made of these phenomena.

This is all but a sample of the area of volcanic and seismic activity that the region has to offer. Katmai and the Valley of Ten Thousand Smokes, Pavlof Volcano and many others are available for study and research. Dr. Jaggard suggests that Dutch Harbor, on Unalaska Island, is an ideal place for a Government scientific research station, not only for the study of volcanology and seismology but also geology, biology and botany. For these investigations, and for coast, geodetic and topographic surveys, such a station would be an admirable base for the whole Aleutian belt.

R.M.W.

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