VOLCANO NOTES AND NEWS

CONTINUED VOLCANIC ACTIVITY AT SAN BENEDICTO ISLAND, MEXICO

By Adrian F. Richards

Initial activity of Boqueron Volcano on San Benedicto Island, Mexico, has been described by Howel Williams in Volcano Letter 517. (The name Boqueron, meaning "Big Mouth," was suggested by Dr. Williams.)

On November 15, 1952, J. M. Snodgrass, D. L. Inman, and the writer, all of the Scripps Institution of Oceanography, flew to Boqueron Volcano in a U. S. Navy PBM. The small conical mass of lava that had plugged the conduit of the 700-foot-deep crater was observed to have increased greatly in size so that the crater had become half filled with a biscuit-shaped mass of block lava. This extrusion of lava probably took place about November 12, at which time the master of the tuna clipper "Constitution" reported to the Scripps Institution that intermittent smoke with flames shooting above the crater had been visible during the night at a distance of 40 miles from the island. No incandescence was seen on November 15. On November 19, the master of the clipper "Paramount" reported to the writer that he had seen glowing boulders hurled 200 feet above the crater at night. Based on observations of December 10, additional block lava was probably added to the crater at that time. On December 8, according to M. Silva of the "Star of the Sea," lava escaped from the flank of Boqueron Volcano at the eastern base of the cone, 60 feet above sea level.

Lewis Walker and the writer reached San Benedicto Island on December 9 for a stay of 4 days. The fissure, through which the blocky lava welled, lengthened upslope to 192 feet altitude by December 11. The temperature at the throat of the fissure was estimated by the writer to be approximately 1300°C., based on the orange-white incandescence. This lava extrusion advanced out to sea 900 feet in 2 days, during which time it grew laterally to 1,200 feet in the shape of a lobate delta. When last observed, the lava was advancing seaward at the rate of 150 feet per day.

Based on identical readings of aircraft altimeters on flights over Boqueron on November 15 and December 11, the elevation of the top of the cone of Boqueron Volcano was determined to be 1,250 feet. This figure is 250 feet less than that reported by Dr. Williams on the September 20 flight. Comparisons of September, November, and December photographs show no apparent change in the height of the rim; consequently, the 1,250-foot value is probably more nearly correct. On December 9, at intervals of approximately 1 hour, dense cauliflower clouds of steam and ash were observed to rise to 3,000 feet. On December 10, the crater rim was observed to be half a mile wide. Red incandescence of the crater lava was occasionally seen in broad daylight. On the morning of December 12, the volcanic activity increased to a continuous eruption of steam and ash from the crater. This eruption continued through December 13, when the island was seen by tuna fishermen. On January 5, Paul Lynn, master of the "Cape Beverly," reported rumbling sounds heard at a distance up to 1 mile from Boqueron, coincident with gas eruptions from the crater.

ERUPTION OF TRIDENT VOLCANO, ALASKA

Mount Trident, in Mount Katmai National Monument, erupted on February 15, 1953. Mount Trident is located near the base of the Alaska Peninsula, 110 miles northwest of Kodiak and 5 miles west-southwest of Katmai Volcano, which erupted violently in 1912. There is no previous record of activity of Trident Volcano during historic times.

On February 15 and 16, pilots of commercial and military planes reported a cloud of "smoke" rising about 30,000 feet into the air. Visibility was too poor, however, to permit precise determination of the type and place of activity. On February 18, the vent was finally located on the south slope of Trident Peak. Earlier reports that Katmai and Novarupta volcanoes were active proved false.

On February 21, seismologist Richard McDonald of the U. S. Geological Survey identified a lava flow issuing from a fissure about 1 mile southwest of the old crater of Trident Volcano. The flow was still active and was about 800 feet wide at its toe and 1,500 feet long. It had advanced about 1,000 feet since it was photographed on February 18. The eruption column rose to a height of about 11,000 feet, and a thin deposit of ash was observed over the surrounding area. The crater lake of Katmai Volcano was not frozen. Light steam rose from two craters on nearby Mageik Volcano, and steam was rising from a vent on the southeast flank of Mount Trident, about 1.5 miles east of the lava vent.

On March 11, geologist George Snyder of the U. S. Geological Survey reported Trident Volcano still active, with slow lava extrusion. Ash blanketed the area within a radius of 20 miles south and east of the volcano.

MYOJIN REEF, JAPAN

Dr. Helen Foster of the U. S. Geological Survey's office in Tokyo writes that Dr. H. Niino of the Tokyo College of Fisheries visited the area of Myojin Reef on February 1. He reported an island estimated to have a maximum diameter of 226 meters and a minimum diameter of 158 meters, in a northwest-southeast direction. The highest point was a black spine 94 meters high. There was also a grayish-white dome 54 meters high. Steam was being emitted from the spine, but there was no other sign of activity. The previous growth of the island was described in Volcano Letter 518.

The March 19 edition of the newspaper *Hawaii Hochi* reported three explosions at Myojin Reef on March 18. The eruption column was stated to reach a height of 1,000 feet.