

HAWAIIAN VOLCANO OBSERVATORY DAILY UPDATE
U.S. Geological Survey
Tuesday, May 1, 2018, 8:49 AM HST (Tuesday, May 1, 2018, 18:49 UTC)

Kīlauea Volcano (VNUM #332010)

19°25'16" N 155°17'13" W, Summit Elevation 4091 ft (1247 m)

Current Volcano Alert Level: WATCH

Current Aviation Color Code: ORANGE

Just after 2:00 p.m. HST today, April 30, 2018, a marked increase in seismicity and ground deformation (change in ground surface shape) began at Pu'u 'Ō'ō on Kīlauea Volcano's East Rift Zone. A few minutes later, a thermal webcam (PTcam) located on the rim of the Pu'u 'Ō'ō crater showed the first of two episodes of crater floor collapse; the second collapse began at 3:20 p.m. and lasted about an hour. Webcam views into the crater and surrounding area were frequently obscured by poor weather conditions. However, shortly after 4:00 p.m., the PTcam recorded images that were likely the signature of small explosions from the western side of the crater as the floor collapsed. At the time of this update (6:00 p.m.), there was no evidence of new lava within the crater, seismicity remained elevated in the vicinity of Pu'u 'Ō'ō, and ground deformation at Pu'u 'Ō'ō had significantly slowed.

Kīlauea's summit eruption has thus far not been affected by this afternoon's activity at Pu'u 'Ō'ō.

USGS Hawaiian Volcano Observatory scientists continue to closely monitor Kīlauea's East Rift Zone and summit. A helicopter overflight of Pu'u 'Ō'ō and the 61g flow field is scheduled for early Tuesday, weather permitting.

HVO webcam images are posted at
https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_webcams.html.

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Activity Summary: An intrusion of magma occurred overnight in the lower East Rift Zone extending from the general area of Pu'u 'Ō'ō eastward at least as far as Highway 130. As of 8:30 this morning, the level of activity has decreased significantly, but it is too soon to know if this is merely a pause. The intrusion began yesterday afternoon associated with collapse of the Pu'u 'Ō'ō crater floor. The summit lava lake is unchanged and has risen overnight to just below the rim of the Overlook crater vent. Early this morning, HVO issued a Volcano Activity Notice calling attention to this intrusion and raising the possibility of a new outbreak along the rift zone if activity intensifies. Residents of lower Puna should remain on alert and monitor Hawaii County Civil Defense messages.

Summit Observations: The summit lava lake remains at a high level. Overall, the summit lava lake has shown no response to activity in the middle and lower East Rift Zone. Summit tiltmeters recorded very little change overnight. Tremor amplitude is fluctuating with lava lake spattering. Elevated summit sulfur dioxide emission rates persist. Current webcam views are here: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_webcams.html

Pu'u 'Ō'ō Observations: HVO tiltmeters recorded sudden and dramatic changes accompanying the onset of crater floor collapse at Pu'u 'Ō'ō yesterday between about 2:00 and 4:00 pm. Weather obscured web camera views of the crater, however thermal camera images showed the collapse in progress followed by emission of high temperature gases continuing into this morning. HVO field crews attempting to reach Pu'u 'Ō'ō this morning were turned back by ash in the air above Pu'u 'Ō'ō, likely due to continuing collapse within the crater and vigorous gas emissions. Reddish ash was also noted in abundance on the ground around Pu'u 'Ō'ō. Seismicity remains elevated at Pu'u 'Ō'ō but tiltmeters near the cone show no significant deformation at this time.

Lava Flow Observations: There is no lava flow activity from the Episode 61g lava flow on the coastal plain or pali, and no lava is flowing into the ocean. Lava flow activity continues on the upper flow field, above the pali and closer to Pu'u 'Ō'ō, and does not pose a threat to nearby communities at this time. Areas of the upper flow field with active lava flows are located within the Kahauale'a Natural Area Reserve, which has been closed to the public by DLNR since 2007 due to volcanic hazards. Webcam views of the flow field are available here: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_webcams.html. Maps of the lava flow field can be found here: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_maps.html. For more info about the Kahauale'a NAR closure, please visit: <https://dlnr.hawaii.gov/ecosystems/nars/hawaii-island/kahaualea-2>.

Lava Flow Field and Ocean Entry Hazards: Hazards of active or recent lava flows include, but are not limited to, (1) hot lava surfaces that can cause serious burns upon contact with unprotected or exposed skin, (2) rough, uneven, and sharp terrain that can lead to falls, abrasions, lacerations, and other injuries, (3) high air temperature and humidity that can lead to dehydration or heat exhaustion, and (4) steamy ground-fog produced by heavy rain falling (sometimes with little warning) on active or recent lava flows; this steam can severely limit visibility, can be acidic, and should be avoided.

No services are available on the lava flow field and cell reception is limited.

Please consult safety information at these links :
<https://pubs.usgs.gov/fs/2000/fs152-00/>
<https://www.nps.gov/havo/planyourvisit/lava2.htm>

Though inactive at present, the 2016-2017 lava delta remains potentially unstable, and collapse of some or all of the delta without warning is possible. In several instances, collapses have also incorporated parts of the older sea cliff. Explosions of rocky debris remain possible should collapses suddenly expose the hot interior of the inactive lava delta.

MORE INFORMATION

Activity Summary also available by phone: (808) 967-8862

Lava viewing information:

Hawai'i Volcanoes National Park: <https://www.nps.gov/havo/planyourvisit/lava2.htm>

County of Hawaii: <http://www.hawaiicounty.gov/lava-viewing/>

Kalapana lava-viewing area: 808-430-1966

Subscribe to these messages: <https://volcanoes.usgs.gov/vns2/>

Webcam images: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_webcams.html

Photos/Video: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_chronology.html

Lava Flow Maps: https://volcanoes.usgs.gov/volcanoes/kilauea/multimedia_maps.html

Definitions of terms used in update:

<https://volcanoes.usgs.gov/volcanoes/kilauea/extra/definitions.pdf>

Overview of Kīlauea summit (Halema'uma'u) and East Rift Zone (Pu'u 'Ō'ō) eruptions:

<https://volcanoes.usgs.gov/volcanoes/kilauea/extra/background.pdf>

Summary of volcanic hazards from Kīlauea eruptions:

<https://volcanoes.usgs.gov/volcanoes/kilauea/extra/hazards.pdf>

Recent Earthquakes in Hawai'i (map and list):

<https://volcanoes.usgs.gov/hvo/earthquakes/>

Explanation of Volcano Alert Levels and Aviation Color Codes:

<https://volcanoes.usgs.gov/activity/alertsystem/index.php>

<https://pubs.usgs.gov/fs/2006/3139/>

HVO Contact: askHVO@usgs.gov

CONTACT INFORMATION:

askHVO@usgs.gov

The Hawaiian Volcano Observatory is one of five volcano observatories within the U.S. Geological Survey and is responsible for monitoring volcanoes and earthquakes in Hawai'i.