

Kīlauea Volcano – 2018
Summit and Lower East Rift Zone (LERZ)
Brief Overview of Events April 17 to May 25

- **May 25, 2018**
 - Explosions at Kīlauea Summit continues. At 12:44 p.m. HST, a M-4.0 earthquake occurred in the summit region of Kīlauea—not large enough for tsunami threat.
 - Laze hazard continues
 - Fissures 7 and 21 crossed Kahukai Road in Leilani Estates
 - Two lava flows are entering the ocean near MacKenzie State Park (Highway 137 mile markers 12 to 14). Fissure 22 continues to erupt lava that is flowing southeast to the coast where lava is entering the ocean. Fountains at fissures 6 and 13 feed lava into a channel that reached the coast and continues entering the ocean. Fissure 17 is barely active
 - Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.
- **May 24, 2018**
 - Explosions at Kīlauea Summit continues. An explosion at 6:24 p.m. HST, sent ash clouds of 10,000 ft asl,
 - Laze hazard continues
 - Three lava flows are entering the ocean between Pohoiki Bay and MacKenzie State Park (Highway 137 mile markers 12 to 14). Fissure 22 continues to erupt lava that is flowing southeast to the coast where lava is entering the ocean. Fissures 6 and 13 feed lava into a channel that reached the coast and entered the ocean.
 - As of 6:00 p.m. HST, spattering and fountaining continues from fissures 22, 19, 15, 6, 13, and weak spattering from 17. Lava eruption continues in Leilani Estates and Lanipuna Gardens from fissure 22. Fissure 7 reactivated this morning; the flow covered Kaupili and Mohala Streets.
 - Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.
- **May 23, 2018**
 - Explosions at Kīlauea Summit continues.
 - Laze hazard continues
 - As of 6:00 p.m. HST, spattering continues from fissures 5, 6, 13, 19, and weak spattering from 17. The fountains from fissure 22 feed a single lava channel that entered the ocean. Fissure 8 reactivated briefly this morning.
 - Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.
- **May 22, 2018**
 - Explosions at Kīlauea Summit continues. An explosion at 3:45 a.m. HST, sent ash clouds of 8000 ft asl,
 - Laze hazard continues
 - As of 5:00 p.m. HST, spattering continues from fissures 5, 6, 19, and weak spattering from 17.
 - A new area of fountaining near fissure 23 started this afternoon along the

- fissure line between Kaupili and Mohala Streets
 - As of 6:00 a.m. HST, fountaining at fissures 6, 19, 22, reactivated 5, and 17.
 - Fissure 6 flows have been slowly flowing closer to PGV property. Fissure 20 is feeding one flow entering the ocean, while other fissures are supplying additional flows.
 - Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.
- **May 21, 2018**
 - Explosions at Kilauea Summit continues. An explosion at 12:55 a.m. HST, sent ash clouds of 7000 ft asl, and small events between 2:00 and 4:00 a.m HST, sent combined ash emissions
 - Laze hazards continue
 - Fissure 17 is spattering but its flow is not advancing. Fissure 19 is reactivated, Fissure 22 is very active, producing lava flows that are headed to ocean in channelized, open flows.
 - Fissure 20 lava crack from May 20 has been abandoned.
 - Two flows continue to enter the ocean
 - Seismicity and deformation continue at the Summit. Deflation is ongoing and additional earthquakes are expected as long as the summit continues to deflate.
- **May 20, 2018**
 - Explosions at Kilauea Summit continues
 - River of lava splits into two and both are entering the ocean
 - Laze hazards from lava entering the ocean
 - Approximately 10:45 p.m.HST May 19, a lava flow has crossed Hwy 137 at the 13-mile marker and has entered the ocean.
 - As of the morning, spattering continues from Fissure 20 with lava draining into a large crack. Fissure 6 was spattering with pahoehoe flows reaching Leilani Estates between Pohoiki Road and Leilani. Fissure 19 is weakly active and fissure 18 is producing tiny spatter bursts. Fissure 17 still spattering and occasional steam blasts.
 - Seismicity and deformation continue at the Summit. Deflation is ongoing and additional earthquakes are expected as long as the summit continues to deflate.
- **May 19, 2018**
 - An explosion at Kilauea Summit occurred just before midnight May 18, with plumes of 10,000 ft asl, sending ash toward Pahala and Ocean View. Additional minor explosions occurred overnight
 - As of 9:00 a.m.HST, fountaining occurred at fissures 17; fissures 16-20 have merged into a continuous line of spatter and fountaining.
 - The consolidated fissure 20 crossed Pohoiki Road; another flow from fissure 20 is flowing southward between Pohoiki and Opihikao Roads.
 - The lava flow from Fissure 18 continues to advance slowly and merged into fissure 20
 - Fissure 17 is still active, but only advanced slightly
 - Seismicity and deformation continue at the Summit. Deflation is ongoing and additional earthquakes are expected as long as the summit continues to deflate.
- **May 18, 2018**
 - Late in the afternoon, a fast-moving pahoehoe lava flow from fissure 20 crossed Pohoiki Road

- Fissure 4 was reactivation around 6:00 p.m.HST
- New fissure 23 opened between fissures 1 and 3
- As of 9:00 a.m. HST, spattering continues from Fissures 15, 17, 18, 20, 21, and 22 with pahoehoe lava flows being erupted from Fissures 17, 18, and 20
- No explosive eruption of ash has occurred since Thursday morning—additional explosions possible at any time
- Seismicity and deformation continue at the Summit. Deflation is ongoing and additional earthquakes are expected as long as the summit continues to deflate.
- **May 17, 2018**
 - Explosive eruption at Kilauea summit occurred at 4:17 a.m. HST, with ash clouds of 30,000 ft; ash cloud drifted northeast
 - Aviation Color Code Red continues
 - 5:17 a.m. HST National Weather Service issued Ashfall Advisory in effect until 8 a.m. HST
 - New Fissure 22 opened in Lanipuna Gardens, just downrift of fissure 19, between fissures 19 and 20
 - New Fissure 21 opened north of Leilani Street, between fissures 3 and 7
 - Fissures 18, 19, and 20 has reactivated in the afternoon
 - Spattering and booming blasts continues from Fissure 17; has not advanced significantly over the past day
 - Fissure 6 is reactivated in the morning with spattering
 - Summit continues to deflate and lava lake continues to drop
- **May 16, 2018**
 - 8:36 a.m. HST: M-4.2 earthquake and subsequent ash plume (estimated to have risen 8200 ft) from summit vent with continued aftershocks
 - Dense ballistic blocks (up to 60 cm) observed in Overlook parking lot
 - Cracks observed on Hwy 11 between mile markers 28 and 29
 - 8:33 a.m. HST National Weather Service cancels Ashfall Advisory since volcanic emission from Halema`uma`u has decreased
 - Aviation Color Code Red continues
 - Lava flows from fissure 17 advanced slightly (only 100 yards) over the past day
 - Fissure 18 weak spattering
 - Fissure 20 reactivated
 - Summit continues to deflate and lava lake continues to drop
- **May 15, 2018**
 - Rock fall and explosions within Halema`uma`u Crater caused an ash plume of around 12,000 ft (3660 m) in the air
 - Increased Aviation Color Code to Red due to increased ash emission from Kilauea.
 - Fissure 13 reactivated with new spatter on road
 - Fissure 6 reopens near Leilani Avenue and Pohoiki Road
 - A new fissure opened in the Lanipuna Gardens Subdivision with two small pads of lava northeast from fissure 19
 - Narrow lava flow from fissure 17 still move slowly toward the ocean at approximately 20 yards (18 m) per hour
 - Minor spattering and small lava pad from Fissure 18
 - Fissure 19 still active at Lanipuna—one house burned on Hinalo Street
 - Summit continues to deflate and lava lake continues to drop

- **May 14, 2018**
 - Fissure 19 opened around 5:46 a.m. HST in Lanipuna Gardens Subdivision with two pads of lava
 - Fissure 17 remains strong with fountaining, spatter, and blasts heard as far away as Mountain View
 - Fissure 18 still active
 - Summit continues to deflate and lava lake continues to drop
- **May 13, 2018**
 - Fissure 18 opened between 16 and 17, issued a small pads of lava, but was short-lived
 - Fissure 17 opened on Halemahina on the southwest side of Highway 132, starting about 4:30 a.m. HST. Large bombs (2-3 meters or yards in size) thrown up 125 m (400 ft) into air; spatter erupted up to 300 ft (but mostly 100 ft) high; lava flow developing and moving both north and south of fissure
 - Summit continues to deflate and lava lake continues to drop
- **May 12, 2018**
 - Fissure 16 opened as early as 3:00 a.m. HST with 250-meter (820-foot) long flow and died about 2:30 p.m. HST
 - *A fissure that opened about 100 m below fissure 16 was initially called “fissure 17”—but that label was later rescinded after the discovery that it had erupted only steam, but no lava*
 - Summit continues to deflate and lava lake continues to drop
- **May 11, 2018**
 - All LERZ fissure eruptions paused, but seismicity and deformation continue, indicating that additional fissures possible
 - Summit continues to deflate and lava lake continues to drop
- **May 10, 2018**
 - All LERZ fissure eruptions paused, but seismicity and deformation continue, indicating that additional fissures possible
 - Summit continues to deflate and lava lake continues to drop
- **May 9**
 - Summit lava lake continued to drop
 - 8:27 a.m. HST: large rockfall (likely in response to M-3.1 earthquake) and subsequent ash plume (estimated to have risen 6000 ft) from summit vent
 - Cracks opened west of Hwy 130
 - Number of LERZ fissures: 15 (#15 lasted less than an hour)
 - USGS Volcano Activity Notice (VAN) issued re: possible summit explosion(s)
- **May 8**
 - Number of LERZ fissures: 14
- **May 7**
 - Number of LERZ fissures: 12
 - Ground cracking extends across Hwy 130
 - 3:15 pm HST: all LERZ fissures inactive, but still heavy steaming and elevated gas emissions
- **May 6**
 - Number of LERZ fissures: 10
- **May 5**

- Number of LERZ fissures: 8
- **May 4**
 - Number of LERZ fissures: 6
 - 11:32 am HST: M-5.4 earthquake
 - 12:32 pm HST: M-6.9 earthquake, produced robust ash plume at Pu‘u ‘Ō‘ō
 - 2:37 pm HST: M-5.3 earthquake
 - Beginning of increased seismicity at summit
- **May 3**
 - 10:30 am HST: magnitude-5.0 earthquake caused additional collapse at Pu‘u ‘Ō‘ō, producing a short-lived plume of reddish ash
 - ~5:00 pm HST: **Eruption commenced on LERZ with three vents (fissures) opening in Leilani Estates**
 - USGS VAN issued re: onset of eruption in Leilani Estates
- **May 2**
 - First small ground cracks opened in and adjacent to Leilani Estates (no high temps or steam) in LERZ
 - Summit lava lake began to drop
- **May 1**
 - Deflationary tilt at summit began
 - USGS VAN issued re: collapse of Pu‘u ‘Ō‘ō and likelihood of lower East Rift Zone eruption
- **April 30**
 - On East Rift Zone, Pu‘u ‘Ō‘ō crater collapsed, prompting increases in seismicity and deformation down rift of the vent, with seismicity as far east as Hwy 130 in the lower Puna District of the Island of Hawai‘i
- **April 26**
 - Large overflow onto Halema‘uma‘u crater floor at summit
- **April 24**
 - USGS VAN issued re: high summit lava lake level and possible overflows
- **April 17**
 - USGS VAN issued re: pressurization of magma system beneath Pu‘u ‘Ō‘ō