Kīlauea Volcano – 2018 Summit and Lower East Rift Zone (LERZ) Brief Overview of Events April 17 to July 19

• July 19, 2018

- Fissure 8 continues to erupt lava into the perched channel leading northeastward from the vent toward Kapoho. The channel is slightly lower with no significant overflows. The channelized `a`a flow west of Kapoho Crater continues and feeds lava into the ocean entry. The southern margin of the flow is about 500 m (0.3 mi) from the boat ramp at Isaac Hale Park.
- At 4:36 p.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.4 earthquake with no threat of tsunami.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- July 18, 2018
 - Fissure 8 continues to erupt lava into the perched channel leading northeastward from the vent toward Kapoho. An increase in lava supply produced several channel overflows destroying homes on Nohea Street in Leilani Subdivision; farther downstream, additional short-lived overflows on both sides of the channel observed. South of Kapoho Crater, the surge produced an `a`a flow that rode over the active southern flow that is still entering the ocean. The southern margin of the flow is about 700 m (0.4 mi) from the boat ramp at Isaac Hale Park.
 - At 1:28 a.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.3 earthquake with no threat of tsunami.
 - Pele's hair from Fissure 8 continue to be falling downwind of the fissure.
 - Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- July 17, 2018
 - Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent toward Kapoho. The channel is slightly lower with no significant overflows. The southern margin of the flow remained about 750 m (0.5 mi) from the boat ramp at Isaac Hale Park.
 - The floor of Halema'uma'u Crater has dropped 450 m (about 1480 ft) since May 10 when the lava lake surface disappeared from view.
 - Pele's hair from Fissure 8 continue to be falling downwind of the fissure.
 - Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 16, 2018

- The eruption in the lower East Rift Zone (LERZ) continues. Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent toward Kapoho. The channel is full with no significant overflows. The southern margin of the flow remained about 1 km (0.6 mi) from Isaac Hale Park. Explosions were reported from the main ocean entry.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure.
- At 11:42 a.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.3 earthquake with no threat of tsunami.

• Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 15, 2018

- The eruption in the lower East Rift Zone (LERZ) continues. Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent toward Kapoho. Some lava was spilling eastward to form a slowly advancing flow that did not extend beyond areas previously covered in lava; the flow stalled within hours. The channelized `a` a flow west of Kapoho Crater continues to be the main ocean entry at the southern edge of the flow front, near Ahalanui Beach Park. This southern boundary was about 900 m (.56 mi) from the boat ramp at Isaac Hale Park.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 3:26 a.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.2 earthquake with no threat of tsunami.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 14, 2018

- The eruption in the lower East Rift Zone (LERZ) continues. Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent toward Kapoho. The channelized `a`a flow west of Kapoho Crater continues to be the main ocean entry at the southern edge of the flow front, near Ahalanui Beach Park, also known as "Warm Ponds". The southern margin of the flow was about 940 m (0.58 mi) from the boat ramp at Pohoiki.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 13, 2018

- In the afternoon, at Kapoho Cone, the majority of the flow is heading south into the ocean at Ahalanui.
- The eruption in the lower East Rift Zone (LERZ) continues. Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent toward Kapoho. The channelized `a`a flow west of Kapoho Crater continues to be the main ocean entry at the southern edge of the flow front, in the direction toward Pohoiki. Lava continues to ooze out at several points on the 6 km (3.7 mi) wide flow front into the ocean. A tiny new island of lava formed a few meters offshore and is oozing lava. This island is about 6-9 meters (20-30 ft) in diameter and possibly a submarine tumulus that built up underwater and emerged above sea level.
- The 7:08 p.m. HST collapse/explosive event this evening was followed by an increase in activity from fissure 8 resulting in channel overflows on the south side of the flow near the vent.
- At 7:08 p.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.2 earthquake with no threat of tsunami.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- July 12, 2018
 - The eruption in the lower East Rift Zone (LERZ) continues. Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent.

Lava levels in the upper channel between Fissure 8 and Pohoiki Road are low this morning, but expected to rise after the next collapse/explosion at Kīlauea's summit. The diverted channelized `a`a flow west of Kapoho Crater advanced to the ocean covering the Kua O Ka La Charter School and Ahalanui Beach Park. The ocean entry continues to be active though several ooze out points on the 6 km (3.7 mi) wide flow front.

- The collapse/explosive event this afternoon was followed by an increase in activity from fissure 8 although lava has not breached the channel and no overflows have been observed.
- At 2:42 p.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.3 earthquake with no threat of tsunami.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 11, 2018

- The eruption in the lower East Rift Zone (LERZ) continues. Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent. The upper channel between Fissure 8 and Pohoiki Road started overflowing about 8:30 or 9 a.m. HST with a few lobes advancing a short distance beyond previous flows and threatened a few houses on Luana and Nohea Streets. The lobe moving around the west side of Kapoho cone remains active with small brushfires along the edges. By 10 a.m. HST, this channelized `a`a flow had advanced with 2,000 ft of the coast at Ahalanui Beach Park. The ocean entry continues to be active with more centralized building of a broad point into the ocean.
- The collapse/explosive event this morning was followed by an increase in lava from the fissure 8 vent which has produced small overflows from the upper channel that threatened a few homes on Nohea and Luana Streets.
- At 5:46 a.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.3 earthquake with no threat of tsunami.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 10, 2018

- The eruption in the lower East Rift Zone (LERZ) continues. Fissure 8 continues to erupt lava steadily into the perched channel leading northeastward from the vent. The significant overflow lobe that was progressing NE towards Cinder Rd is no longer advancing at this time, and there has been no significant activity on the north side of the Fissure 8 lava channel since the overflows yesterday afternoon. Fissure 22 continues weak spattering.
- July 9's blocked-channel overflow following the west side of Kapoho Cone remains active and small brushfires reported along the margins. Multiple lava ooze outs visible at coast.
- July 9's channel disruption and overflows were caused by blockages that developed along the channel. Additional blockages and resulting overflows are like to occur as long as the activity continues. Cone remains active.
- Earthquake activity at summit is elevated prior to the next anticipated collapse/explosion.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and

accumulated in Leilani Estates.

- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- July 9, 2018
 - In the afternoon, multiple overflows occurred along both sides of the main lava channel, in an area extending from near the "Y" intersection at Pohoiki Road eastwards to an area just west of Kapoho Crater. Overflows on the upper part of the channel did not extend beyond areas previously covered in lava. Overflows further down the channel reached beyond the flow field, including one flow lobe that is moving northeast from the main channel towards Cinder Road.
 - The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from Fissure 8 spatter cone continued to supply lava to the open channel with intermittent, small short-lived overflows. Fountain heights rarely rise above the rim of the 180 ft spatter cone. As shown by the July 8 thermal map of the flow field, the main lava channel has reorganized and is nearly continuous to the ocean on the south side of the flow. Lava continues to enter the ocean along a 4 km (2.5 mi) long line of small entry points, and continues to expand into Kapoho Beach Lots and north of Four Corners intersection.
 - Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
 - At 9:20 a.m. HST, a collapse explosion event occurred at Halema`uma`u Crater. The energy released by the event was equivalent to a M-5.3 earthquake, with no threat of tsunami.
 - Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- July 8, 2018
 - The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from Fissure 8 spatter cone continued to supply lava to the open channel with intermittent, small short-lived overflows. Fountain heights rarely rise above the rim of the 180 ft spatter cone. As shown by the July 6 thermal map of the flow field, the main lava channel no longer directly enters the ocean—the open channel flow ends about 2 km (1.2 mi) inland of the coast. Lava continues to enter the ocean. Lava oozes from the northern edge of the `a`a flow near Lighthouse at Cape Kumukahi. Fissure 22 is weakly spattering.
 - Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
 - At 2:55 a.m. HST, a collapse explosion event occurred at Halema`uma`u Crater. The energy released by the event was equivalent to a M-5.4 earthquake, with no threat of tsunami.
 - Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- July 7, 2018
 - The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from Fissure 8 spatter cone continued to supply lava to the open channel with intermittent, small short-lived overflows. The spatter cone is about 180 ft (55 m) tall, and fountains rarely rise above the cone. Lava is oozing into the ocean from multiple points primarily along the northern section of a broad flow front. Multiple ooze-outs fed flows on the north and the southwest edge of the main `a` a flow but neither had lava actively entering the ocean. Fissure 22 is weakly spattering
 - Pele's hair from Fissure 8 continue to be falling downwind of the fissure and

accumulated in Leilani Estates.

• Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 6, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from Fissure 8 spatter cone continued to supply lava to the open channel with intermittent, small short-lived overflows. Fountain heights rarely rise above the rim of the 180 ft spatter cone. Lava is oozing into the ocean from multiple points primarily along the northern section of a broad flow front. The large flow from multiple ooze-outs along the northern edge continued to be active between Kapoho Crater and the ocean. Fissure 22 is weakly spattering with a weak flow extending east.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Road closure on Highway 11 in the vicinity of the 30-mile marker near Volcano Country Club due to damage to the roadway.
- At 6:04 p.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.3 earthquake, with no threat of tsunami.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 5, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from Fissure 8 spatter cone continued to supply lava to the open channel with intermittent, small short-lived overflows. Fountain heights rarely rise above the rim of the 180 ft spatter cone. Lava continues to enter the ocean over a broad area along the shoreline, and is oozing pasty lava in the area of Kapoho Ag and Beach Lots. Small overflows from the channel continued and nearly reached the Beach Road about 0.3 km (0.2 mi) north of Four Corners.
- Fissure 22 is sporadically spattering.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Road closure on Highway 11 in the vicinity of the 30-mile marker near Volcano Country Club due to damage to the roadway.
- At 1:20 p.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.2 earthquake, with no threat of tsunami.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 4, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from Fissure 8 spatter cone continued to supply lava to the open channel with intermittent, small short-lived overflows, that flows to the ocean at the Kapoho coastline. Fountain heights rarely rise above the rim of the 180 ft spatter cone. Lava continues to enter the ocean over a broad area along the shoreline, and is oozing pasty lava in the area of Kapoho Ag and Beach Lots and a flow near the Four Corners area.
- Fissure 22 continued spattering about 50-80 m above conical spatter cone and feeding a short lava flow that is moving slowly to the northeast along the edge of earlier flows.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and

accumulated in Leilani Estates.

- At 10:19 a.m. HST, a collapse explosion event occurred at Kīlauea's summit. The energy released by the event was equivalent to a M-5.3 earthquake, with no threat of tsunami.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 3, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Fissure 8 continued to be very active and continues to feed lava to the open channel that flows to the ocean at the Kapoho coastline. Fountain heights rarely rise above the rim of the 180 ft spatter cone. Intermittent small, short-lived overflows from channel observed. Lava continues to enter the ocean over a broad area along the shoreline, and is oozing fresh lava at Kapoho Beach Lots.
- Geologist witnessed an "apartment-sized" blockage within the lava channel (near the Kapoho cone) give way and was pushed down stream by the pressurized lava behind.
- Fissure 22 continued spattering about 50-80 m above conical spatter cone and feeding a short lava flow that is moving slowly to the northeast along the edge of earlier flows.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 2:17 a.m. HST, a collapse explosion event occurred at Kīlauea's summit that produced a ash-poor plume of 1,000-2,000 ft above the ground (5,000-6,000 ft asl). The energy released by the event was equivalent to a M-5.1 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 2, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8's 180 ft (55 m) spatter cone continued to feed lava to the open channel that flows to the ocean at the Kapoho coastline. Fountain heights rarely rise above the rim of the 180 ft spatter cone. Intermittent small, short-lived overflows from channel observed. Lava continues to enter the ocean over a broad area along the shoreline, and is oozing fresh lava at Kapoho Beach Lots. Fissure 22 is spattering about 50-80 m above conical spatter cone and feeding a short lava flow that is moving slowly to the northeast along the edge of earlier flows.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 1:24 a.m. HST, a collapse explosion event occurred at Kīlauea's summit. Radar indicated an ash-poor plume rose ~1200 ft above the ground surface (~5,200 ft asl). The energy released by the event was equivalent to a M-5.3 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• July 1, 2018

• The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8's 180 ft (55 m) spatter cone continued to feed lava to the open channel that flows to the ocean at the Kapoho coastline. Each morning, HVO field crews conduct an overflight of the lava channel to determine if there have been any overflows—intermittent small, short-lived overflows continue to occur, but rarely extend beyond the existing flow field—no active overflows were observed on this morning overflight. Fountain heights rarely rise above the rim of the 180 ft spatter cone. Lava continues to enter the ocean over a broad area along the shoreline, and is oozing fresh lava at Kapoho Beach Lots. Fissure 22 active with spattering above conical spatter cone and feeding a short, sluggish lava flow to the northeast along the edge of earlier flows. Fissures 7, 21, and 13 heavily steaming.

- Fissure 8 flows through the open channel, beginning at the 180 ft (55 m) spatter cone to the ocean at Kapoho coastline is about 13 km (8 mi).
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 30, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8 spatter cone continued to supply lava to the open channel that flows to the ocean at the Kapoho coastline, with small, intermittent short-lived overflows. Fountain heights rarely rise above the rim of the 180 ft (55 m) spatter cone. Lava continues to enter the ocean over a broad area along the shoreline, and is oozing fresh lava at Kapoho Beach Lots. Fissure 22 active and producing a short flow.
- Whirlwind above the lava channel captured on video. A whirlwind form when hot gasses rise and punch through the cooler air above, to create a vertical column of hot air. Depending on wind conditions, the rising column of air can begin to rotate, creating a whirlwind.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 2:51 p.m. HST, a collapse explosion event occurred at Kīlauea's summit producing an ash-poor steam plume that rose 500 ft above the ground (4,500 ft asl) and drifted SW. The energy released by the event was equivalent to a M-5.3 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 29, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8's 180 ft (55 m) spatter cone continued to supply lava to the open channel that flows to the ocean at the Kapoho coastline, with small, intermittent short-lived overflows. Fountain heights rarely rise above the rim of the 180 ft spatter cone. Lava continues to enter the ocean over a broad area along the shoreline, and is oozing fresh lava at Kapoho Beach Lots. Thermal map shows the lava channel has crusted over about 0.8 km (0.5 mi) inland of the ocean entry; lava is moving beneath the crust and into still-molten interior of earlier flows before it enters the sea.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 7:51 a.m. HST, a collapse explosion event occurred at Kīlauea's summit producing an ash-poor steam plume that rose 500 ft above the ground (4,500 ft asl) and drifted SW. The energy released by the event was equivalent to a M-5.2 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- June 28, 2018
 - The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8 spatter cone continued

to feed the open channel to the ocean at the Kapoho coastline. Lava continues to enter the ocean over a broad area.

- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 4:49 a.m. HST, a collapse explosion event occurred at Kīlauea's summit producing an ash-poor steam plume that rose 1,000 ft above the ground (5,000 ft asl) and drifted SW. The energy released by the event was equivalent to a M-5.3 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 27, 2018

- In the afternoon, Fissure 8 continues to be active and feed the open lava channel to the ocean at Kapoho. The flow is expanding south along the shoreline, and is oozing fresh lava at Kapoho Beach Lots.
- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8 spatter cone continued to feed the open, voluminous lava channel. Small overflows occurred on both sides of the upslope portion of the channel—none has extended past the existing flow field. Lava continues to enter the ocean along the southern Kapoho coastline primarily through the open channel, but also along a 1 km (0.6 mi) wide area with multiple laze plumes from smaller oozing lobes.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 26, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8 spatter cone continued to supply lava to the open channel with small, short-lived overflows. Lava is entering the ocean on the southern portion of the flow front primarily through the open channel, but also along a 1 km (0.6 mi) wide area with multiple laze plumes from smaller oozing lobes. The spatter cone is 180 ft tall at its highest point, and fountains occasionally rise above the 180 ft point. Fissure 22 weak spattering and tiny flows around the base of the cone. Minor incandescence at Fissure 16/18.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Halema`uma`u was approximately 1 km (0.6 mi) across and about 85 m (~280 ft) deep. After the lava lake surface disappeared from view on May 10, the depth was more than 325 m (1,070 ft) below the Halema'uma'u crater floor. The crater is now 1 x 1.3 km (0.6 to 0.8 mi) in dimension, and the depth is 400 m (1,300 ft) below the caldera floor.
- At 10:41 p.m. HST, a collapse explosion event occurred at Kīlauea's summit producing an ash-poor steam plume that rose 1,000 ft above the ground and drifted SW. The energy released by the event was equivalent to a M-5.3 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 25, 2018

• In the afternoon, fountains from Fissure 8 spatter cone continue to supply lava to the open channel with small, short-lived overflows. The lava flow front at the coast broadened southward and is now nearly 2 miles in width. Fissure 22 weakly active.

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8 spatter cone continued to supply lava to the open channel to the ocean at the Kapoho coastline. No significant overflows since yesterday.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Aviation Color Code ORANGE.
- At 5:03 p.m. HST, a collapse explosion event occurred at Halema`uma`u Crater. The energy released by the event was equivalent to a M-5.3 earthquake and was no threat for tsunami.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 24, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8 180 ft tall spatter cone continued to supply lava to the open channel to the ocean at the Kapoho coastline. Fissure 16/18 minor incandescence with recent tiny flows near vent. Fissure 22 tiny glow.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 8:35 p.m. HST, HVO reduced Aviation Color Code from RED to ORANGE. Collapse/explosion events have not been producing significant ash plumes rising more than 10,000 ft asl—the threshold that could pose a significant hazard to aviation.
- At 4:32 p.m. HST, a collapse explosion event occurred at Kīlauea's summit, producing an ash-poor steam plume that rose 2,000 ft above the ground (<6,000 ft asl). The energy released by the event was equivalent to a M-5.3 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response The energy released by the event was equivalent to a M-5.3 earthquake. ongoing subsidence of the summit.

• June 23, 2018

- The eruption in the lower East Rift Zone (LERZ) continues with no significant change in the past 24 hours. Lava fountains from the Fissure 8 spatter cone continued to supply lava to the open channel to the ocean at the Kapoho coastline. Minor overflows from the channel. Fissure 22 incandescence but no spattering or flow.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 4:34 p.m. HST, a collapse explosion event occurred at Kīlauea's summit, producing an ash-poor steam plume that rose 500-1000 ft above the ground (4,500-5,000 ft asl). The energy released by the event was equivalent to a M-5.3 earthquake.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 22, 2018

• The eruption in the lower East Rift Zone (LERZ) continues. Lava fountains from the Fissure 8 spatter cone continued to flow in the well-established channel to the ocean at the Kapoho coastline. A dominant ocean entry on the south edge of the flow front is producing a large laze plume. Minor overflows from the channel. Fissures 6

inactive. Fissure 16/18 some incandescence and Fissure 22 weak lava fountain.

- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 6:52 p.m. HST, a collapse explosion event occurred at Kīlauea's summit, producing an ash-poor steam plume that rose 500 ft above the ground (4,500 ft asl). The energy released by the event was equivalent to a M-5.3 earthquake with no threat of tsunami.
- At 8:30 a.m HST at Halema'uma'u crater, several benches—sections of the former crater rim and adjacent Kīlauea caldera floor that have incrementally dropped or slumped into the crater as the summit area has subsided since early May—are clearly visible within the crater.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 21, 2018

- In the afternoon, Fissure 8 spatter cone continue to feed the established channel. No major changes since the morning.
- The eruption in the lower East Rift Zone (LERZ) continues. Lava fountains from the Fissure 8 spatter cone continued to feed the well-established channel to the ocean at the Kapoho coastline. No overflows from the channel. Fissures 6 weakly active. Fissure 16/18 and 22 some incandescence.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Halema'uma'u parking lot fell into the crater this past week.
- At 1:13 p.m. HST, a gas and ash emission from a collapse event occurred at Kīlauea summit. The energy of the event was equivalent to a magnitude-5.3 earthquake with no threat of tsunami.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 20, 2018

- Lava fountains up to 187 ft tall from Fissure 8 in the evening. Fissure 16 mild spattering.
- In the afternoon, Fissure 8 spatter cone continue to feed the established channel. Fissure 6, and 16 only fuming.
- The eruption in the lower East Rift Zone (LERZ) continues. Lava fountains from the Fissure 8 spatter cone continued to feed the well-established channel by traveling 13 km (8 mi) to the ocean at the Kapoho coastline, where several entries are active. Fissures 6, 15, and 16 are periodically oozing lava and streaming.
- Lava has added about 380 acres of new land into the sea.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Halema'uma'u parking lot fell into the crater this past week.
- At 4:22 a.m. HST, a gas and ash emission from a collapse event occurred at Kīlauea summit, producing a plume of about 6,000 ft asl.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- June 19, 2018
 - In the evening, fountain heights from Fissure 8 was 165-246 ft high.

- In the afternoon, another small, sluggish overflow along a section of Luana Street is advancing northwest. Fissure 6, 15, and 16 are oozing lava and fume.
- Eruption of lava continues from the lower East Rift Zone (LERZ). Fissure 8 lava fountains showered spatter onto the cone and continued to feed the well-established channel to the ocean entry at Kapoho. Small overflows were observed on the north side of the channel near Pohoiki Road, with one breakout spreading slowly beyond the flow boundary. Lava was entering the ocean at two entries. Fissures 16/18 continued to ooze lava. Fissure 6 mild spattering continues. The flow field is relatively stable with little change to its size and shape for the past few days. The overall width of the flow boundary at the coast is about 1.5 miles across.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 2:24 p.m. HST, a 4.4 magnitude earthquake occurred in the vicinity of the south side of Kīlauea Volcano—there is no tsunami threat.
- At 5:05 a.m. HST, another gas and ash emission from a small subsurface explosion occurred at Kīlauea summit, producing a plume of about 5,000 ft asl.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 18, 2018

- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Lava fountains continued from Fissure 8 spatter cone and continued to feed the well-established channel to the ocean entry at Kapoho. Occasional minor lava spills over the channel levees. The ocean entry remains fairly broad along the length of the flow front. Fissures 16/18 continued to ooze lava. Fissure 6 mild spattering continues. The flow field is relatively stable with little change to its size and shape for the past few days.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 6:13 a.m. HST, a large earthquake beneath the summit of Kīlauea was felt and heard (roaring sounds) by nearby residents. Followed by a plume of 5,000 ft asl.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 17, 2018

- Late in the evening, lava fountains ranged from 60-165 ft from Fissure 8.
- In the afternoon, fountains as high as 165 ft rose from the Fissure 8 spatter cone and continue to feed the channel that flows to the ocean at Kapoho.
- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Lava fountains from Fissure 8 spatter cone continued to feed the well-established channel to the ocean entry at Kapoho. Occasional minor lava spills over the channel levees. The ocean entry remains fairly broad along the length of the flow front. Fissures 16/18 continued to ooze lava. Fissure 6 weakly spattering.
- Lava covers 5,914 acres (9.24 square miles). 533 homes were destroyed reported by Hawai'i County Civil Defense.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 6:26 a.m. HST, another gas and ash emission produced by a subsurface explosion at Kīlauea's summit occurred with plume of 5,000-7,000 ft asl.

• Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 16, 2018

- In the afternoon, Fissure 6 (*originally reported as Fissure 15*) active with mild spatter. Occasionally, lava spills over the channel levees. Fissure 8 continues.
- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Lava fountains from the 170 ft-tall Fissure 8 spatter cone continued to produce fountain heights of 185 to 200 ft and continued to flow through the well-established channel to the ocean entry at Kapoho. The ocean entry remains fairly broad along the length of the flow front. Fissures 16/18 continued to ooze lava.
- Lava is building a seaward delta that is approximately 320 acres in size.
- Lava covers 5,914 acres (9.24 square miles). 467 homes were destroyed reported by Hawai'i County Civil Defense.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 10:22 a.m. HST, another gas and ash emission produced by a subsurface explosion at Kīlauea's summit.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 15, 2018

- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Fissure 8 lava fountains continues with heights reaching 200 ft from within the growing cone of cinder and spatter and continued to feed the channel to the ocean entry at Kapoho. The ocean entry is active along the length of the flow front. Fissures 16/18 continued to ooze lava.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Halema`uma`u was approximately 1 km (0.6 mi) across and about 85 m (~280 ft) deep. After the lava lake surface disappeared from view on May 10, the depth was more than 325 m (1,070 ft) below the Halema'uma'u crater floor. The crater is now 1 x 1.3 km (0.6 to 0.8 mi) in dimension, and the depth is 370 m (1,210 ft).
- At 12:05 p.m. HST, an explosion occurred in the summit region of Kilauea, producing a plume of nearly 10,000 feet asl. The energy of the event was equivalent to a magnitude-5.3 earthquake with no threat of tsunami.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 14, 2018

- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Fissure 8 lava fountains continues with heights reaching 200 ft from within the growing cone of cinder and spatter and continued to feed the channel to the ocean entry at Kapoho. The ocean entry is active along the length of the flow front. Fissures 16/18 continued to ooze lava. Upwelling continues.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- At 3:19 a.m. HST, an explosion occurred in the summit region of Kilauea, producing a plume of 6,000 feet asl.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- June 13, 2018

- Evening fountains reached 174 ft from within the growing cone of cinder and spatter,
- In the afternoon, Fissure 8 continued to produced 100-130 feet lava fountains.
- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Fissure 8's 130-140 feet lava fountains from within the growing cone of cinder and spatter. The activity continued to feed the channel to the ocean entry at Kapoho which produced a towering steam plume from a focused ocean entry point. Weak lava activity at Fissures 16/18 continued. More dispersed upwelling continues.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- An explosion occurred at 3:39 a.m. HST in the summit region of Kilauea, with plume heights of 7,000 to 8,000 feet asl.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 12, 2018

- In the afternoon, Fissure 8 continued to produced fountains encircled by a 115 feet spatter cone.
- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. The line of closely spaced lava fountains from Fissure 8 continued with heights of 160 feet, just higher than the spatter cone around them. The activity continued to feed the channel to the ocean entry at Kapoho. On the east side of Fissure 8, a minor pond overflowed slightly. Weak lava activity at Fissures 16/18 continued. The ocean entry was more distributed over a broader front with many small plumes and two larger entries and corresponding plumes. Upwelling continues.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- An explosion occurred at 1:52 a.m. HST in the summit region of Kilauea.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 11, 2018

- In the afternoon, the three closely spaced lava fountains at Fissure 8 are erupting with fluctuating heights below the 115 feet high spatter cone around it up to 180 feet. The evening, lava fountain heights reached 160 feet, just higher than the spatter cone around them.
- Eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. The three closely spaced lava fountains from Fissure 8 continued with heights of 115-130 feet and continued to feed the channel to the ocean entry at Kapoho. Fissure 8 channel is nearly full with no spillovers. Weak lava activity at Fissures 16/18 continued. Littoral bursts at the ocean entry. Upwelling area offshore still active.
- The new lava delta is about 250 acres in size.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- There were two explosions in the summit region of Kilauea. The first occurred at 12:46 a.m. HST, and the second larger one at 4:43 a.m. HST.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.
- June 10, 2018
 - By afternoon, three closely spaced lava fountains at Fissure 8 are erupting with

heights of 130-180 feet. In the evening, heights were 150-180 feet.

- Vigorous eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Lava fountains from Fissure 8 continued with heights of 130-180 feet that continue to feed the channel to the ocean entry at Kapoho. Overnight near the Four Corners region, the channel was incandescent and flowing. Minor lava activity at Fissures 16/18 continued.
- o Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- A small explosion occurred at 12:51 a.m. HST in the summit region of Kilauea.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 9, 2018

- Vigorous eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Lava continued to erupt from Fissure 8, with fountain heights of 130-180 feet and continued to supply lava to the ocean entry at Kapoho. No significant changes in the Fissure 8 flow field. The steam plumes rising from the ocean flow front was visibly smaller and areas of upwelling offshore was less distinct. The diminished plumes are due to change in atmospheric conditions rather than a change in Fissure 8 output. Fissure 22 was incandescent and minor lava activity at Fissures 16/18; less fuming from Fissures 24, 9 and 10 than yesterday.
- As of 6:30 a.m. HST, the lava delta at the Kapoho lava entry is about 200 acres in size—the lava delta formed over the past six days when the lava entered the ocean on June 3rd.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- A small explosion occurred at 4:48 a.m. HST in the summit region of Kilauea.
- Inward slumping of the rim and walls of Halema`uma`u continues in response ongoing subsidence of the summit.

• June 8, 2018

- In the evening, fountain continued with heights of 200-220 feet. Two vigorous steam plumes rising from the ocean flow front. Strong thermal upwelling in the ocean extending up to 1000 yards out to sea from the visible lava front. Fissure 9, and 10 were emitting heavy gas and steam.
- In the afternoon, lava eruption continued at Fissure 8 with fountain heights of 220 feet. No significant changes in the Fissure 8 flow field and the two large plumes at the broad ocean entry. The Kapoho Beach Lots boundary has not changed.
- Following a magnitude-3.2 earthquake at the summit, twelve rockfalls were recorded in Pu`u `O`o between 10:31 and 10:56 a.m. HST. A prominent red dust plume was produced around 10:50 a.m. HST, but dissipated quickly.
- Vigorous eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Overnight, lava fountaining at Fissure 8 reached heights of 220 feet and continued to feed a lava channel flowing east to the Kapoho Bay area. No significant changes in the Fissure 8 flow field. Fissure 24 is incandescent; Fissures 24, 9, and 10 are fuming heavily.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- A small explosion occurred at 2:44 a.m. HST in the summit region of Kilauea. Ash plume from satellite data suggest heights of 10,000 ft above sea level.
- o Inward slumping of the rim and walls of Halema`uma`u continues in response to ongoing

subsidence of the summit.

• June 7, 2018

- Late in the evening, lava fountaining at Fissure 8 continues with heights between 170-200 feet.
- In the afternoon, lava fountaining at Fissure 8 fluctuated with heights between 190 and 215 feet and continued feeding a lava channel flowing east to the ocean entry in the Kapoho Bay area. The lava delta is 1.2 miles wide in the Vacationland/Waopae area and the flow is expanding northward through Kapoho Beach Lots. A large area of upwelling offshore suggests the presence of lava flowing on the ocean floor.
- Vigorous eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates. Overnight, lava fountaining at Fissure 8 fluctuated, reaching heights of 230 feet and continued to feed a lava channel flowing east to the Kapoho Bay area. The northern lobe and the west side of Four Corners cinder pit lobe from Fissure 8 was reported as no activity. Lava is entering the ocean along a broad front at Vacationland and Kapoho Bay.
- Laze hazard from lava entering the ocean continues.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Inward slumping of the rim and walls of Halema`uma`u continues in response to ongoing subsidence of the summit.

• June 6, 2018

- In the afternoon, lava was continuing to enter the ocean in the area of the Vacationland subdivision. Fissure 8 fountain heights diminished to 130-210 feet.
- Vigorous eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates and Lanipuna Gardens. Vacationland has been completely covered by lava and expanded north by 100 m within Kapoho Beach Lots.
- Laze hazard from lava entering the ocean.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- A small explosion occurred at 4:07 p.m. HST in the summit region of Kilauea with ash plume that rose to about 10,000 ft.
- Inward slumping of the rim and walls of Halema`uma`u continues in response to ongoing subsidence of the summit.

• June 5, 2018

- Vigorous eruption of lava continues from the lower East Rift Zone (LERZ) fissure system in the area of Leilani Estates and Lanipuna Gardens. Fountain heights of 150-180 feet at Fissure 8 continued and are feeding a channel transporting flow to the east to the ocean entry in the Kapoho Bay area. Fissure 8 flow is continuing to form a lava delta with continuing advances into the surviving parts of Kapoho Beach Lots and Vacationland neightborhoods
- Laze hazard from lava entering the ocean.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- A small explosion occurred at 4:32 a.m. HST in the summit region of Kilauea with plume of 5000 ft asl. Pacific Tsunami Warning reports the event as an M-5.6 earthquake—the earthquake was not large enough for tsunami threat.
- Earthquake activity at the summit has dropped after Tuesday morning's small explosion, but is slowly rising, following the pattern of the past weeks.
- June 4, 2018
 - As of late afternoon, the lava entry had built a delta extending approximately 700 yards into the bay. The flow front is about 500 yards wide.

- Local videographers reported that lava entered the ocean at Kapoho Bay at about 10:30 p.m. HST on June 3. As of 6:30 a.m. HST the lava was constructing a delta in Kapoho Bay extending a few hundred yards into the bay.
- Laze hazard from lava entering the ocean.
- Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. Fountains at Fissure 8 continued and are feeding a robust lava channel to northeast along Highway 132 to the Kapoho area.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Following the 3:50 p.m. June 3 M-5.5 explosion, earthquake activity at the summit has been low. Inward slumping of the rim and walls of Halema`uma`u continues in response to persistent subsidence. Earthquake rates are expected to increase with other small explosions, following the pattern of the past weeks.

• June 3, 2018

- As of 5:45 p.m. HST, the lava flow was about 245 yards from the ocean at its closest approach point.
- Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. Fountains at Fissure 8 continued and are feeding a channelized flow to the northeast along Highway 132 (Pahoa-Kapoho Road) that has crossed Highway 137. The flow is moving downslope toward the ocean through Kapoho Beach Lots. As of 7:30 a.m. HST, the flow front, which extends from Kapoho Beach Road to Kapoho Kai Drive and down to Ililani Road, is 430 yards from the ocean between Kapoho Beach Road and Kapoho Kai Drive.
- At 3:50 p.m. HST, a M-5.5 (preliminary) earthquake occurred in the summit region of Kilauea produced an ash column that reached 8,000 ft.asl—the earthquake was not large enough for tsunami threat.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Earthquakes in the summit region continue. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
- Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.

• June 2, 2018

- Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. Fountain heights of 180-220 feet at Fissure 8 continued and are feeding a channelized flow to the northeast along Highway 132 (Pahoa-Kapoho Road) that has crossed Highway 137 (Kalapana-Kapoho Road) at the intersection of the two highways at 9:30 a.m. HST. The flow continued advancing into Kapoho Crater and Kapoho Beach Lots. At 9:55 a.m. HST, lava entered Green Lake within Kapoho Crater producing a large, steam plume. Other branches of the Fissure 8 lava flow were inactive.
- Fissure 16 was weakly active.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Earthquakes in the summit region continue. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
- Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.

• June 1, 2018

- Earthquakes in the summit region continue. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
- o Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna

Gardens. Overnight, Fissure 8 continued to produce 220 feet fountains that continue feeding a channelized flow to the northeast along Highway 132. As of 6:30 a.m. HST, the lava flow front of the Fissure 8 was 0.84 miles above the Four Corners (the intersection of Highway 132 and 137).

- Fissure 18 flows is weakly active with widely scattered lava breakouts; overnight a new flow that branched from the same channel 1.5 miles upslope captured most of the lava output from Fissure 18 and was descending downslope just to the south of the previous flow. Fissure 22 was weakly active with lava pooling around the vent, but as of 9:30 a.m. HST, is inactive.
- Pele's hair from Fissure 8 continue to be falling downwind of the fissure and accumulated in Leilani Estates.
- Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.

• May 31, 2018

- Earthquakes in the summit region continue. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
- Laze hazard continues
- At about 7:30 p.m. HST, the Fissure 8 lava flow front that is moving downslope toward the Four Corners area crossed Railroad Avenue.
- Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. Overnight, Fissure 8 continued to produce persistent 200-260 feet fountains that continue feeding flow activity to the northeast; one overflow covered the remaining northern part of Makamae Street and crossed Kahukai Street, filling in the area between Makamae and Luana Streets. As of 12:30 p.m. HST, the front of the Fissure 8 flow near Noni Farms Road was 1.9 miles above the Four Corners area. High eruption rates from Fissure 8 formulated a leveed channel along the western edge of the lava flow.
- Fissure 18 feeds the upper part of a lava flow that extends to 1.5 mi from Highway 137; the lower portion of the fissure 18 lava flow stalled about 0.5 mi from the highway. Fissure 2 was weakly active
- Pele's hair from Fissure 8 continue to be falling to the west of the fissure and accumulated in Leilani Estates.
- Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.
- May 30, 2018
 - Earthquakes in the summit region continue. An explosion occurred at around 11:00 a.m. HST sent an ash cloud of 12,000 ft above sea level. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
 - Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. Fissure 8 maintained high fountains with sustained heights of 200-250 feet, and a secondary fountain of 60 feet. The fountaining continued to feed a lava flow that is moving north out of Leilani Estates and then northeast along Highway 132 with three lobes in the vicinity of Noni Farms Road. Fissure 18 also remained active, moving downslope toward Highway 137. Sporadic bursts of activity from Fissures 22, 6, and 13.
 - Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.

• May 29, 2018

- Earthquakes in the summit region continue. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
- o Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna

Gardens. One weak lava ocean entry. Fissure 8 remained very active, with 200 feet fountains. A finger crossed Hwy 132 near PGV access road. Fissures 18 and 16 were weakly active.

- Pele's hair from Fissure 8 are being transported downwind and falling to the west of the fissure.
- Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.

• May 28, 2018

- Explosions at Kilauea Summit continues. An explosion occurred at 4:35 a.m. HST sent an ash cloud of 10,000 ft above sea level. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
- A magnitude 4.1 earthquake occurred at 5:39 p.m. HST on the Koa`e fault zone south of the caldera.
- Laze hazard continue
- Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. One weak lava ocean entry. As of 4:30 p.m. HST, fissures 8, 18, 20, 22, 6/13, and 7/21 reactivated. Fissure 7/21 had the highest fountains.
- As of 6:00 a.m. HST, only fissure 8 and 24 was active.
- Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.

• May 27, 2018

Explosions at Kilauea Summit continues. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.

- Laze hazard continues
- A new Fissure 24 opened between Kupono and Nohea Streets in Leilani Estates Subdivision.
- Vigorous eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. Two lava ocean entries are active. Fissure 21 is feeding an `a`a flow that continued to advance on PGV property, but has slowed overnight. Fissure 7 activity increased overnight, producing a large spatter rampart over 100 feet tall from 150-200 feet fountains that are feeding a perched pahoehoe flow 20-40 feet thick.
- Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.
- May 26, 2018
 - Explosions at Kilauea Summit continues. An explosion from Overlook Crater at 4:17 p.m. HST produced an ash cloud of 12,000 ft above sea level
 - Earthquakes in the summit region continue. The earthquakes and ash explosions are occurring as the summit area subsides and adjusts to the withdrawal of magma.
 - Laze hazard continues
 - As of this morning, the on-going eruption in Kīlauea's lower East Rift Zone has covered approximately 2372 acres (3.7 square miles or 9.6 square kilometers) of land in new lava.
 - Eruption of lava continues in the area of Leilani Estates and Lanipuna Gardens. Two lava flows are entering the ocean near MacKenzie State Park. Fissure 22 continues to erupt lava that is flowing to the coast and entering the ocean. Fountains at fissures 6 and 13 feed lava into a channel that reaches the coast and continues entering the ocean. Fissures 7 and 21 are feeding a perched lava pond and pahoehoe flow that covered most of the area between Kaupili and Mohala Streets. The flow front crossed Pahoa Pohiki Road at about 2:30 p.m. HST onto PGV property. Fissure 8 was reactivated. Fissure 17 boomed multiple gas emissions.
 - Seismicity and deformation continue at the Summit. Additional earthquakes are expected at the summit.

• May 25, 2018

- Explosions at Kilauea Summit continues. At 12:44 p.m. HST, a M-4.0 earthquake occurred in the summit region of Kilauea—not large enough for tsunami threat.
- A new subsidiary pit opened up on the north part of the floor of Halema`uma`u Crater. The vent area is now approximately 90 acres, and anticipate further enlargements as subsidence of Kīlauea Calera, rockfalls and small explosions continue
- Laze hazard continues
- Fissures 7 and 21 crossed Kahukai Road in Leilani Estates
- Two lava flows are entering the ocean near MacKenzie State Park. 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 Kilauea 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 Kilauea 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 Kilauea 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
- o 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 13mile 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
 - o 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
 - o Increased Aviation Color Code to Red due to increased ash emission from Kilauea.
 - Fissure 13 reactivated with new spatter on road
 - o 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
 - o 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-feet) 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
 - The lava lake surface disappeared from view, at a depth of more than 325 m (1,070 ft) below the Halema'uma'u crater floor.
 - o 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
 - Fissure 13 erupted across near the intersection of Leilani and Pohoiki Road, and located between Fissures 1 and 6
 - Fissure 14 opened near Fissure 3 on Kaupili Street
- May 7
 - Number of LERZ fissures: 12
 - Fissure 12 opened in the forest south of Malama Street, shortly after fissure 11 became inactive.
 - 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
 - o Fissure 10 opened near the intersection of Malama and Pomaikai Streets
 - Summit lava lake dropped significantly, roughly 220 m below the crater rim.
- May 5
 - Number of LERZ fissures: 9
 - o In the morning, Fissure 7 opened near Makamae and Leilani Streets
 - Fissure 8 opened at the edge of Luana Street (near Leilani Street) with fountaining and occasional bursts to 100 m heights, and building a spatter cone.
 - Fissure 9 opened on Kupono Street, with the flow migrating to the west toward Moku Street.
- May 4
 - Number of LERZ fissures: 6 (Fissures 2-6 activated)
 - o A new lava fissure 2 commenced around 1:00 a.m. HST on Makamae and Leilani Streets

with spatter thrown roughly about 30 m (100 ft) high.

- At 5:57 a.m. HST, Fissure 3 opened up on Kaupili Street
- Fissure 4 opened in forest around 10:39 a.m. between Kaupili and Mohala Streets
- Shortly before 12:00 p.m., Fissure 5 opened near Leilani and Kahukai Street.
- Fissure 6 opened near Pohiki and Leilani Streets
- 11:32 am HST: M-5.4 earthquake
- \circ 12:32 pm HST: M-6.9 earthquake, produced robust ash plume at Pu'u ' \overline{O} '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 one vent (fissure) opening in the area of Mohala and Leilani Streets in Leilani Estates Subdivision
 - 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
 - $\circ~$ USGS VAN issued re: pressurization of magma system beneath Pu'u ' $\bar{O}'\bar{o}$