

2014 Volcano Awareness Month “After Dark in the Park”

Programs presented by the Hawaiian Volcano Observatory

Kīlauea Visitor Center Auditorium ▪ 7:00 p.m.
Hawai‘i Volcanoes National Park

(<http://www.nps.gov/havo/planyourvisit/directions.htm>)

Park entrance fees apply. For more information, call (808) 985-6011 or (808) 967-8844.

Tuesday, January 7

Kīlauea Volcano's East Rift Zone: 31 years and still erupting



January 3, 2014, marks the 31st anniversary of Kīlauea’s ongoing East Rift Zone eruption. During its first 3 years, spectacular lava fountains spewed episodically from the Pu‘u ‘Ō‘ō vent. Since then, nearly continuous lava effusion has built a vast plain of pāhoehoe lava that stretches from the volcano's rift zone to the sea. Although the eruption has produced dramatic lava flows in past years, it has been relatively subdued in recent years, with mostly steady, but unusually weak, activity. **Tim Orr**,

a geologist with the USGS Hawaiian Volcano Observatory, will review highlights from the past 31 years and talk about recent developments on Kīlauea’s East Rift Zone.



Tuesday, January 14

Happenings in Halema‘uma‘u: An update on Kīlauea’s summit eruption

In March 2008, a new volcanic vent opened within Halema‘uma‘u Crater at the summit of Kīlauea. Since then, the eruption has consisted of continuous degassing, occasional explosive events, and fluctuating lava lake activity in an open crater that is now 520 ft by 690 ft in size. While thousands of visitors flock to see the nighttime glow emitted by the lava lake,



Kīlauea’s summit eruption also provides an abundance of data and insights for scientists. USGS Hawaiian Volcano Observatory geologist **Matt Patrick** will present an update on Kīlauea’s summit eruption, including an overview of the volcanic processes occurring within the vent.



Tuesday, January 21

Earthquakes and explosions: Shocking events at Kapoho and Halema'uma'u in 1924

In April 1924, Kapoho residents were evacuated as hundreds of earthquakes shook their village. In the weeks that followed, huge explosions wracked the summit of Kīlauea Volcano. Using USGS Hawaiian Volcano Observatory logs, geologic field notes, National Park Service reports, newspaper accounts, photographs, and other records from 1924, **Ben Gaddis**, a long-time HVO volunteer, will tell the story of Kīlauea's most violent eruption of the 20th century from the perspective of the people who lived through it.



Tuesday, January 28

Decades of degassing at Kīlauea: Wake up and smell the coughing!



As magma rises from the Earth's mantle to the surface, the expansion of volcanic gases drives the spectacular lava fountains and flows erupted by Hawaiian volcanoes. While Kīlauea still produces picturesque lava flows from its East Rift Zone, and its summit crater hosts a dynamic lava pond, it also releases huge amounts of volcanic gases which have negatively

impacted downwind communities, agriculture, and infrastructure for years.

Jeff Sutton and Tamar Elias, USGS Hawaiian Volcano Observatory geochemists, will offer an update about these gases, especially those related to the 2008-2013 activity at Halema'uma'u Crater, and will talk about volcanic pollution (vog)—how it forms and what we've learned about its effects on our island environment. An optional "gas-tasting" party will follow the talk.



Tuesday, February 4

What we don't know about Hawaiian volcanoes

For all that we've learned about Hawai'i's volcanoes during the Hawaiian Volcano Observatory's first 100 years, there are still questions to be answered. James Dwight Dana, one of the first geologists to study Hawaiian volcanoes, called these unknowns "points requiring elucidation" in 1890. Since then, many of Dana's points have been addressed, but some have not, and new questions have arisen from the continuous observation and study of Hawaiian volcanoes.

USGS Hawaiian Volcano Observatory scientist Mike Poland will discuss the big issues faced by volcanologists studying Hawaiian volcanoes today, from the source of magma deep within the Earth to predicting eruptions—or determining when an ongoing eruption will end!

