

2017 Volcano Awareness Month “After Dark in the Park”

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

(Directions: <http://www.nps.gov/havo/planyourvisit/directions.htm>)
Park entrance fees may apply.

Tuesday, January 3

34 years and counting: Updates on Kīlauea Volcano's eruptions

As of January 3, 2017, Kīlauea has been erupting nearly continuously for the past 34 years. It began on the volcano’s East Rift Zone, where Pu‘u ‘Ō‘ō continues to send lava flows down the flanks of Kīlauea. In 2008, a second vent opened within Halema‘uma‘u Crater at the summit of Kīlauea, where a spattering lava lake still lights the night sky and captivates spectators.

Tina Neal, Scientist-in-Charge of the USGS Hawaiian Volcano Observatory, briefly describes the history of



these two eruptions and provides in-depth accounts of volcanic activity during the past year, including lava reaching the sea for the first time since 2013 and the rise and fall of the summit lava lake. *USGS photos: Pu‘u ‘Ō‘ō lava flow in July 2016 and the summit lava lake within Halema‘uma‘u Crater in January 2016.* [NOTE: This talk will be repeated at UH-Hilo on Jan. 5.]

Tuesday, January 10

The unheard sounds of Hawaiian volcanoes



Infrasound is atmospheric sound and vibration below the threshold of human hearing. These low-frequency sounds are generated by large-scale fluid flow and can propagate for thousands of kilometers to provide early warning of natural or man-made hazards. Active open-vent volcanoes, such as Kīlauea, are exceptionally good sound emitters, and scientists are steadily building a continuous baseline of volcano-acoustic activity, including

infrasonic tremor from Halema‘uma‘u and Pu‘u ‘Ō‘ō. Join **Milton Garces**, Director of the University of Hawai‘i Infrasound Laboratory, as he talks about “listening” to Kīlauea, Mauna Loa, and Hualālai volcanoes through one of the most advanced infrasound networks in the world. *ISLA photo: Milton Garces deploying an infrasonic microphone at Kīlauea in 2006.*

Tuesday, January 17

Trials and tribulations of Halema'uma'u Crater: 200 years old and still going

Halema'uma'u, the large crater within Kīlauea Volcano's summit caldera, has a checkered past and an uncertain future. Probably first appearing in the early 19th century, Halema'uma'u has



enthralled visitors with its lava lakes, enticed at least three people to their deaths in past decades, and served as a centerpiece for countless photographs and paintings.

Don Swanson, a USGS geologist at the Hawaiian Volcano Observatory, traces the volcanic history of Halema'uma'u and includes personal anecdotes about his encounters with the crater during the 1967-68 eruption. *USGS photo: Lava lake and flows on Halema'uma'u Crater floor in 1968.*

Tuesday, January 24

How do HVO geologists track lava flows and lava lakes?

Kīlauea is currently home to two remarkably long eruptions. Pu'u 'Ō'ō and other vents on the volcano's East Rift Zone have erupted lava flows for more than 3 decades. At the summit of Kīlauea, an active vent within Halema'uma'u Crater has fed a lava lake for over 8

years. Monitoring each of these eruptions presents unique challenges and requires using various tools and techniques, ranging from low-tech to state-of-the-art. USGS Hawaiian Volcano Observatory geologist **Matt Patrick** explains the toolkit he uses to map lava flows and measure lava lakes, and describes how scientists continuously improve their methods of tracking volcanic activity. *USGS photo: HVO geologist mapping a lava flow in 2012.*



Tuesday, January 31

An update on Mauna Loa activity and monitoring efforts



Mauna Loa, the largest active volcano on Earth, has erupted 33 times since 1843, most recently in 1984, when lava flows approached Hilo. Future eruptions could produce high-volume, fast-moving flows that reach the ocean in a matter of hours. In 2015, the Volcano Alert Level of Mauna Loa was elevated from "NORMAL" to "ADVISORY" due to increased seismicity and deformation at the volcano, which continue to occur.

USGS Hawaiian Volcano Observatory scientist **Ingrid Johanson** provides a brief account of Mauna Loa's eruptive history, an update on its current status, and an overview of how HVO scientists track activity that might presage the volcano's next eruption. *USGS photo: HVO scientist monitoring gas emissions on Mauna Loa in 2015.*

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For more info, visit https://www.nps.gov/havo/planyourvisit/events_adip.htm
or call (808) 967-8844.