

Mauna Loa awakens

On 27 November 2022, Hawaii's Mauna Loa volcano on the Big Island began erupting for the first time in 38 years. A day later, a flight over the eruption captured this photo. It clearly shows a line of fissures, at an elevation of 3 km, from which lava flowed across the volcano's northeast rift zone. The eruption continued for about two weeks, with lava traveling some 20 km from the summit. The US Geological Survey observed an increase in the number of earthquakes beneath the volcano's cauldron-shaped summit and to the northwest roughly two months before the eruption began. The island's nearby Kilauea volcano has been erupting since September 2021.

The two volcanoes appear to be connected underground by a deep, widespread network of pathways, according to a recently published paper by researchers from Caltech. Although previous studies have hypothesized that such a network may exist, the large data set the Caltech team analyzed showed enough seismic activity to map out a detailed plumbing system that connects Mauna Loa to Kilauea, 34 km away. Future monitoring of volcanic activity may benefit from considering both volcanoes as part of a larger, interconnected system. (J. D. Wilding et al., *Science* **379**, 462, 2023; image courtesy of the US Geological Survey.)

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