Twitter Thread by Xy5Z89■■■■

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@Xy5Z89

#Italy #Sicily #Etna #Volcano
ACTIVITY REPORT (#THREADE

37.748°N, 14.999°E;
summit elev. 3320 m

All times are local (unless otherwise noted)

INGV reported that Strombolian activity from all four of Etna's summit craters, the Southeast Crater (SEC), Northeast Crater (NEC), Bocca Nuova (BN), and Voragine (VOR), was visible during 8-14 February.

The frequency and intensity of explosions at SEC were variable; almost continuous strong explosions originated from two vents in the E part of the top of the cone. Tephra accumulated near the top of the cone and rolled several tens of meters down the flanks.

Minor ash emissions rapidly dispersed. Less-intense Strombolian activity occurred at the S vent (also called the saddle vent). Intra-crater Strombolian activity at NEC sometimes produced nighttime crater incandescence.

The activity at BN sometimes ejected coarse material beyond the crater rim, and rare emissions that had diffuse ash content. The the VOR Strombolian explosions ejected material that sometimes rose above the crater rim and generated diffuse ash emissions.

During the morning of 15 February explosive activity at SEC gradually intensified. Activity originated from the E vents but sometimes intense explosions occurred at the saddle vent. A significant increase in tremor amplitude began at 1700. Tremor amplitude waned at 2100,

the same time that explosive activity decreased. At 1700 on 16 February lava began advancing down the E flank of SEC. Part of the cone collapsed at 1705 and generated a pyroclastic flow that traveled 1.5 km along the W wall of the Valle de Bove.

An ash plume rapidly dispersed to the S. Explosive activity at SEC increased and lava fountaining began at 1710. Ash clouds drifted S. Lava flows advanced into the Valle de Bove, reaching an elevation of 2,000 m by 1759 at the latest. Lapilli,

1 cm in diameter, was reported in Nicolosi (16 km S) and Mascalucia (19 km S), and ash and lapilli fell in Catania (29 km SSE). Ashfall was also reported in Syracuse, 60-80 km SSE. Another lava flow advanced N into the Valle del Leone. Lava fountains were about 500 m tall,

possibly as tall as 600 m. Tremor amplitude began to decrease at 1750 and lava fountains ceased around 1800. Lava effusion from SEC gradually diminished;

the flow in the Valle de Bove was a few kilometers long and smaller flows that had traveled N and S reached an elevation of 2,900. Strombolian activity persisted at SEC overnight during 16-17 February and ceased at 0715 on 17 February. Explosions at VOR were sporadic.

Geologic Background. Mount Etna, towering above Catania, Sicily's second largest city, has one of the world's longest documented records of historical volcanism, dating back to 1500 BCE.

Historical lava flows of basaltic composition cover much of the surface of this massive volcano, whose edifice is the highest and most voluminous in Italy. The Mongibello stratovolcano, truncated by several small calderas,

was constructed during the late Pleistocene and Holocene over an older shield volcano. The most prominent morphological feature of Etna is the Valle del Bove, a 5 x 10 km horseshoe-shaped caldera open to the east.

Two styles of eruptive activity typically occur, sometimes simultaneously. Persistent explosive eruptions, sometimes with minor lava emissions, take place from one or more summit craters. Flank vents, typically with higher effusion rates,

are less frequently active and originate from fissures that open progressively downward from near the summit (usually accompanied by Strombolian eruptions at the upper end). Cinder cones are commonly constructed over the vents of lower-flank lava flows.

Lava flows extend to the foot of the volcano on all sides and have reached the sea over a broad area on the SE flank.

Source: Sezione di Catania - Osservatorio Etneo (INGV)
(https://t.co/LBHl3WTqPS) / (https://t.co/Jaag0W9yCB)

written by @volcanessa

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