

Summit eruption at Mount Etna

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(All times are in GMT)

A new summit eruption occurred at Etna volcano on 29 March 2007 at 5:30 GMT. An increase in volcanic tremor was accompanied by fire fountaining and an ash cloud that rapidly drifted NE. Poor weather conditions prevented observation, even through the monitoring webcams. However, satellite images allowed us to record the movement of the eruptive cloud and its evolution (Coltelli M., Prestifilippo M., Scollo S. & Spata, Osservazione da satellite della emissione di cenere, INGV-CT Report in Italian). The episode lasted about 1 hour, and was accompanied by the re-opening of three eruptive fissures on the summit of Etna, and by lava flow emission. Two lava flows took place from the 3050 m and 3180 m vent located respectively on the SE flank of Bocca Nuova and on the saddle between Bocca Nuova and South-East Crater (SEC), in the same location of the October-November 2006 events. The two flows merged down slope and travelled less than 1 km S, halting at the rim of Cratere del Piano, at about 2900 m a.s.l. (Giammanco S., Rapporto settimanale sull'attività eruttiva dell'Etna, 26 Marzo - 1 Aprile 2007, INGV-CT Report in Italian). The third fissure opened at the E base of SEC, and the lava flow spread within the upper Valle del Bove. The survey carried out in the early afternoon showed that the flows were already stopped and no longer fed. Ash and lapilli fallout occurred on a narrow belt comprised between SEC, Rifugio Citelli and Giardini Naxos, on the NE flank of the volcano (Andronico D. & Cristaldi A., L'evento parossistico del 29 marzo 2007 - Caratteristiche dei prodotti e dispersione del deposito, INGV-CT Report in Italian). The composition of the pyroclastics erupted during the explosive phase (Corsaro R.A. & Miraglia L., Attività esplosiva del 29 marzo al CSE - analisi dei vetri, INGV-CT Report in Italian) shows a primitive composition, as revealed by the CaO/Al₂O₃ ratio, much higher than the products erupted between 1995 and 2006, and suggests that a new input of magma fed this activity. After this episode eruptive activity stopped, but volcanic tremor showed since then daily phases of increase and decrease lasting a few hours each.