

Additional File 2

Eruption onset and vent widening captured by CAM1

The monitoring camera, CAM1, captured the onset and growth of the eruptions in South Crater (Fig. A1). At 15:39:40, the eruption started at vent S1 and S5 in South Crater, which later became Y3 and Y2a, respectively. We observed that the widening of the vent Y2a proceeded from 18:40:51, and ash plumes increased at Y2a and Y3 afterward.

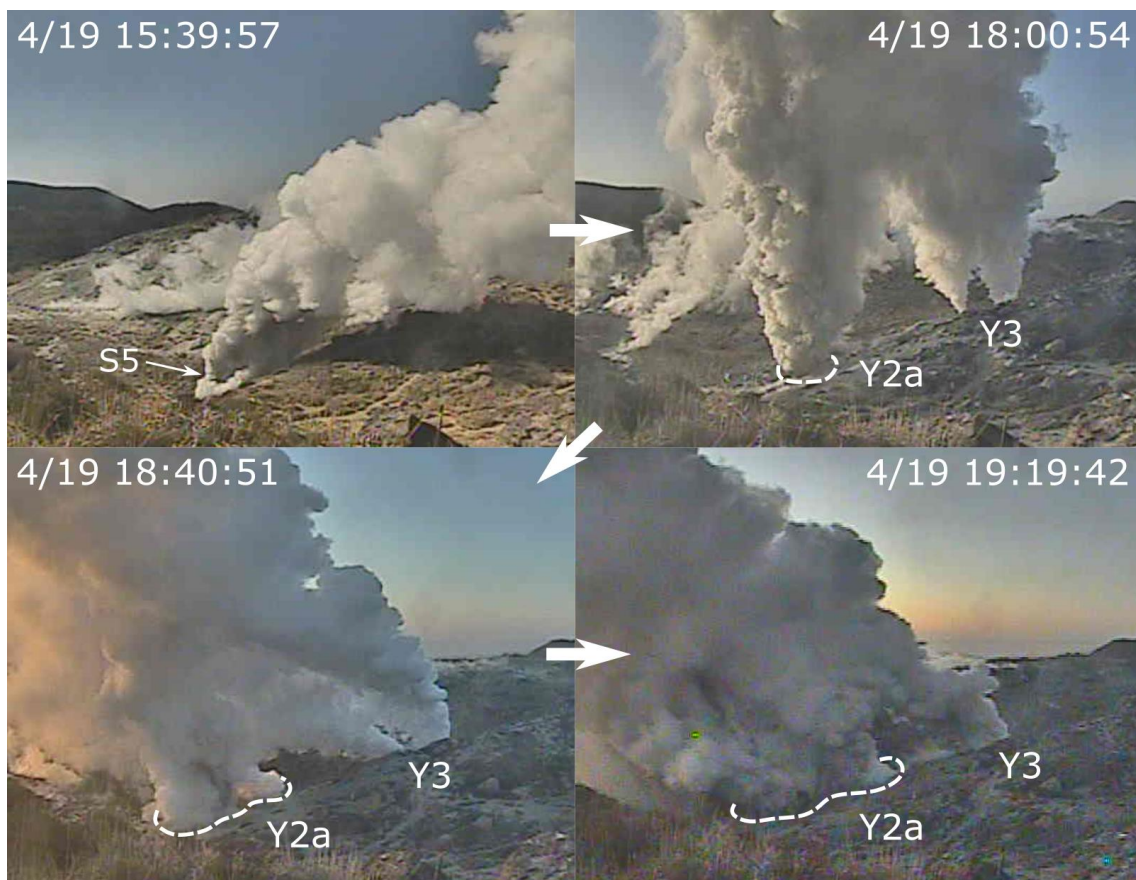


Fig. A1. Snapshots from CAM1 that captured the eruption onset and the vent widening in South Crater. The upper left panel is the onset of the eruption at vent S5. The vent S1 also erupted (Tajima et al. 2019), which was not visible from CAM1 due to the steam from vent S5. The upper right and the lower left panels are before and the onset of the widening. The lower right panel is the timing when the low-frequency infrasound signal began. It shows increased ash plumes from Y2a and Y3.