

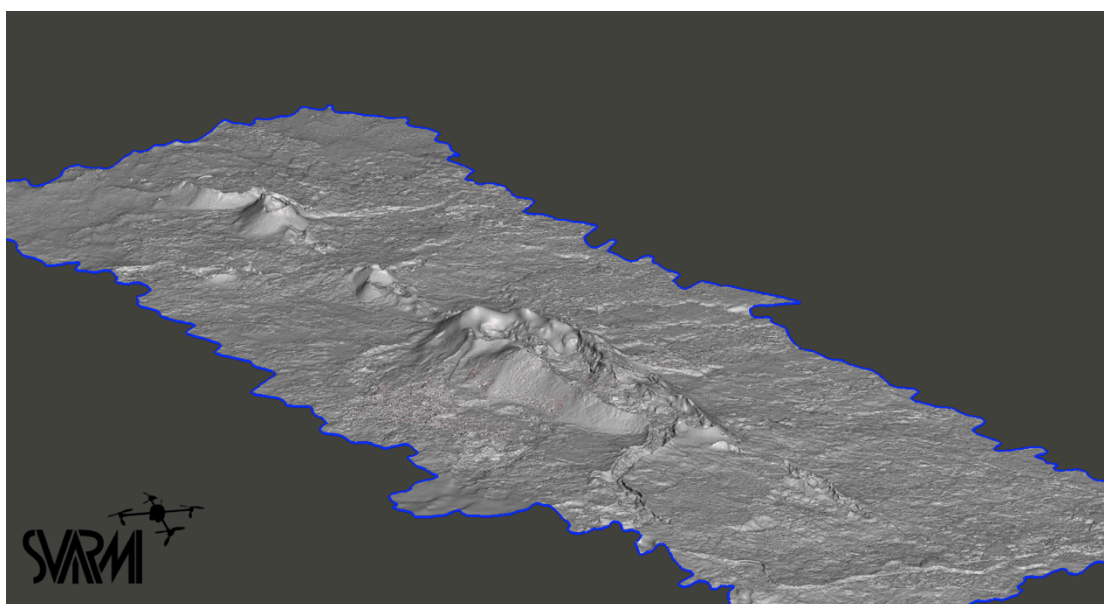
Vent and open lava channels: The crater row along the eruptive fissure, and the upper stretches of the lava channel system, were mapped with overlapping orthogonal photos using a fixed-wing drone platform, and oblique photos from the ground. Height measurements along the rampart and inside/along the open lava channel system were made with a kinematic GPS. The crater rim and channel levees are unstable, visible fractures and recent collapses. Structures were documented with photographs. The team walked in/along the lava channel, scaled the two islands and inspected a spatter bank (formed during period with repeated lava surges), the lava cascade upstream of the now-'hanging' northern lava channel, structures in channel walls and more.

Lava field: Aerial survey mapping was also carried out for two areas in the lava field: SE lava field by a kipuka and Jökulsá á Fjöllum, and the far ENE lava field where several escarpments are present in the lava field. While deploying ground control markers in the lava field, additional profiles with kGPS were walked along radar flight lines. Escarpments in the lava field were tracked with GPS, as was the edge of the lava field along Jökulsá. The edge of the lava field along Jökulsá was furthermore documented with still photographs and GoPro video. On a secondary note, the team completed a full circumference of the lava field on MAR 19.

Lava dam: Profiles with kGPS were walked across/along the lava dam between Thorvaldshraun and the new lava field, for modeling of flooding on Flædur.

Hydrothermal plume: Steam field in the far ENE lava field is still active.

Gas: 0.3-0.9 ppm SO₂ was measured by the crater and along the lava channel.



3D model of crater row along eruptive fissure, as well as part of the near-vent lava river system and the northern channel that was active mid-DEC to mid-JAN. Work in progress.



Impression from the upper stretch of the open lava channel (looking east); team member carrying kGPS for scale. Collapse structures by canyon walls. The 'wall' in central background is the first island in the braided lava channel system.

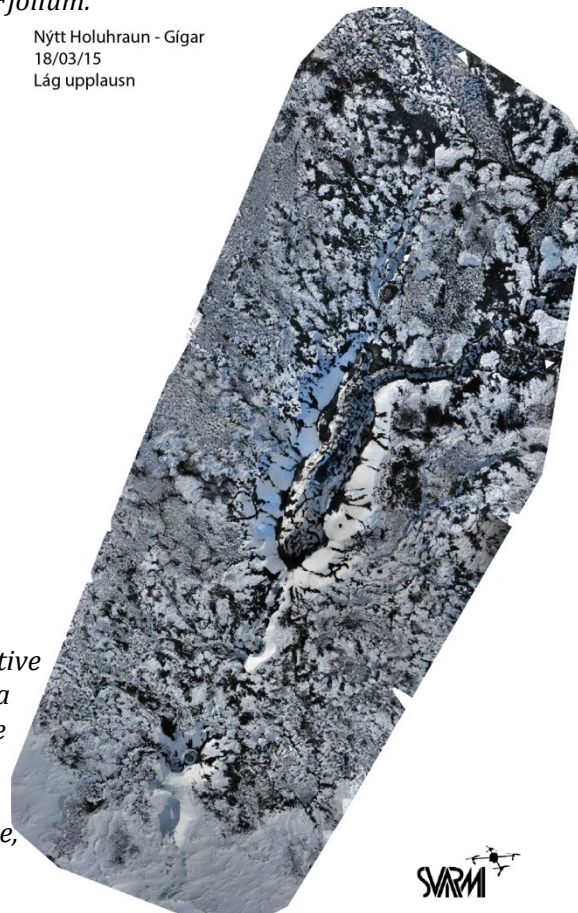


Photo taken from the 'pork chop' or 'kotelet' island toward north. Center foreground – spatter on levee on the island. Right foreground – steep drop, lava cascade. Left middle ground – 'hanging' head of the northern lava channel that was cut off from supply in mid JAN due to decreasing effusion rate. Background – lava field and (overexposed) Dyngjujöll.



Seconds after landing - recovery of fixed-wing drone after flight over the lava field. Photo taken at SE edge of lava field by Jökulsá á Fjöllum.

Nýtt Holuhraun - Gígar
18/03/15
Lág upplausn



Ortho mosaic of the crater row along eruptive fissure, as well as part of the near-vent lava river system and the northern channel. The rampart is seen in the center of the image, and the 'pork chop' island is located in the far right of the image (above white triangle, representing no coverage).



IES – Field Volcanology and Natural Hazards group

Team on site: Gunnar Snær Hermannsson, Tryggvi Stefánsson (SVARMI ehf.), Kristinn Magnusson, Birgir V. Óskarsson & Morten S. Riishuus. Sigurdur Erlingsson, VJP ranger, participated in the fieldwork.