

Bárðarbunga update 31082014

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Compiled by

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Based on

Seismic, GPS, Hydrology, Radar, Webcam, visual observations

Eruption plume

Height (a.s.l.)

No plume was detected by radar (detection limit above 1 km) and webcam indicated low level gases and steam from lava fountains since this morning at 05:52 UTC.

Heading

No ash plume, but winds were up 20 m/s from SE during the day.

Colour

No plume now.

Tephra fallout

No tephra fallout reported.

Lightning

No lightning during eruption according to ATDnet of the UK Met Office and WWLLN-system.

Noise

None.

Meltwater

Hydrological measurements at Jökulsá á Fjöllum by Upptýppingar show no change from normal situation and does not seem to be affected by the eruption in Holuhraun.

Conditions at eruption site

A lava eruption started in Holuhraun shortly after 04 AM, on the same volcanic fissure, which erupted earlier this week. The fissure is estimated to be 1,5 km long. It was detected on Míla's web-camera at 05:51 AM. Fewer earthquakes seem to follow the event than in the previous eruption, but more lava is being extruded. At 07 AM the lava flow was around 1 km wide and 3 km long towards northeast. The thickness was estimated a few meters, the flow rate about 1000 m³ per second. There has been poor visibility until 11:30 UTC, then it has been moderate. The eruptive fissure is visible since then and magma extrusion is still ongoing. White steam rising from the eruption is also visible.

Seismic tremor

No continuous harmonic tremor is detected. Low-frequency tremor is seen at the stations closest to the fissure, most likely due to the strong wind conditions.

Earthquakes

More than 600 earthquakes were detected in the area and smaller than before. The two strongest earthquakes, M3.8 and M5.1, were in the Bárðarbunga caldera. Poor weather conditions prevail in the area, which makes detection of smaller earthquakes difficult.

GPS deformation

GPS measurements show continued movements north of Dyngjujökull.

Overall assessment

Weather conditions made it difficult to follow the progression of the eruption since this morning, but scientists are in the area, using every opportunity to acquire information on gas and lava outflow. Weather conditions do not allow overflight at this time. The Aviation Colour Code for Bárðarbunga was raised at 'red' this morning and it has been moved back to 'orange' since 15:00 UTC. The color code for Askja is at 'yellow'.