



NATIONAL COMMISSIONER OF THE ICELANDIC POLICE
DEPARTMENT OF CIVIL PROTECTION AND EMERGENCY MANAGEMENT



STATUS REPORT FROM THE NATIONAL CRISIS COORDINATION CENTRE

Date: 05.09.2014 at 1800

Regarding: Volcanic Eruption north of Vatnajökull, in Holuhraun

Main Points:

- Ongoing lava eruption in Holuhraun,
- New smaller fissure.
- Continued seismic activity
- Risk assessment - four likely scenarios
- Restricted area north of Vatnajökull

Volcanic and Seismic Activity:

The eruption in Holuhraun continues, with no signs of abating. The lava continues to flow to the east north east and has grown in area since yesterday. This morning RÚV public broadcaster reported that new eruptive fissures had opened to the south of the on-going eruption. A 8:30 surveillance flight with scientists from the Met office and University of Iceland confirmed this; two fires south of the previous eruption site in Holuhraun, in a graben which that had formed above the intrusion, about 2km away from Dyngjufjökull. The eruptive fire fountains from the new fissures are substantially smaller than in the older fissure. The cauldron in Dyngjufjökull seems to have grown deeper since the last observation. No changes are visible in Bárðarbunga. Considerable activity is in the northern fissure (fissure 1) and the height of the steam cloud is about 15,000 feet.

Seismicity in the area is similar to yesterday's activity. About 270 earthquakes have been detected from midnight to noon; two earthquakes of magnitudes 4, 4 and 5, 3 in the Bárðarbunga caldera region at around midnight UTC. GPS displacements continue to decrease. Measurements show a slight increase in conductivity in Jökulsá á Fjöllum. Substantial amounts of sulphur dioxide (SO₂) are still being released to the atmosphere in association with the eruption. No reports of ash fall.

Precautionary measures:

The closures of the area north of Vatnajökull are still in force. All roads leading to the area are closed. Permissions to scientists and media for access to limited parts of the area, have been withdrawn, due to new fissures near Dyngjufjökull glacier. This is a precautionary measure due to the danger of floods in case of an eruption under the glacier.

Sulphur dioxide emission continues. In case the area is opened for scientists and media, it is essential that anyone, who is near the eruption site is equipped with gas sensors and gas masks. The Administration of Occupational Safety and Health stresses that it is crucial for all institution and companies working in the area to conduct a risk assessment and response plans according to regulation (nr. 920/2006)

The road to Dettifoss on the West side of Jökulsá á Fjöllum (No 862) has been opened for traffic from the ringroad 1 to the Dettifoss waterfall. Other roads on the west side are still closed, including hiking trails. All roads leading to the volcanic site are closed, based on the risk of a flood if an eruption will start under the glacier. Information on closures can be found on the Icelandic Road and Coastal Administration web page: <http://www.vegagerdin.is/media/umferd-og-faerd/Halendi.pdf>

The Aviation Colour Code for Bárðarbunga remains at 'orange' and the code for Askja at 'yellow'.

Risk assessment

It remains unclear how the situation will develop. Four scenarios are considered most likely:

- o The migration of magma could stop, resulting in a gradual reduction in seismic activity and no further eruptions.



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- o The dike could reach the Earth's surface at different locations outside the glacier. Lava flow and/or explosive activity cannot be excluded.
 - o The intrusion reaches the surface and another eruption occurs where either the fissure is partly or entirely beneath Dyngjujökull. This would most likely produce a flood in Jökulsá á Fjöllum and perhaps explosive, ash-producing activity.
 - o An eruption in Bárðarbunga. The eruption could cause an outburst flood and possibly an explosive, ash-producing activity. In the event of a subglacial eruption, it is most likely that flooding would affect Jökulsá á Fjöllum. However it is not possible to exclude the following flood paths: Skjálfafljót, Kaldakvísl, Skaftá and Grímsvötn.
- Other scenarios cannot be excluded.

Risk of floods:

There is still a risk of flood in the area. This is based on the fact that an eruption may begin under the Vatnajökull glacier, either in Dyngjujökull or Bárðarbunga caldera. The new fissures in Holuhraun are further to the south, approx. 2 km from the edge of the glacier. Water which runs from beneath the glacier might cause danger to anyone in the area known as Flæður, as they could become trapped.

Cooperation and coordination:

The coordination of the operation and information continues at the National Crisis Coordination Center (NCCC). This morning there was a meeting with the Icelandic Civil Protection Scientific Advisory Board, followed by a teleconference with the District Commissioner in Húsavík to coordinate measures. Also, the NCCC is coordinating with Vatnajökull National Park regarding traffic, access control points and environmental protection. Today NCCC met with the Met office and the Environmental Agency to go over gas-measurements in the area and continued monitoring. A Civil Protection surveillance flight by the Coast Guard this morning produced new data which will be assessed at tomorrow's meeting of the Civil Protection Scientific Advisory Board. In cooperation with the NCCC, the EU's Emergency Response Coordination Centre (ERCC – Copernicus) has produced maps based on latest available data, including satellite images. This includes maps of inhabited areas which would be exposed in case of flooding. The ERCC continues to produce new maps with changes of the area near the eruption.

Tourist information

Most roads in Iceland are open and accessible including the Ring road (nr. 1) around Iceland and safe for travelling. However, due to volcanic eruption in the area north of Vatnajökull glacier, the highland north of Vatnajökull glacier is closed for all traffic. The eruption site is about 120 km south of road nr. 1 in northeast Iceland and there has been no ash fall reported. All airports in Iceland are open.

Information:

A media unit is placed at the National Crisis Coordination Center, providing information and dealing with media requests. The email address is info@sst.is Tel: +354-5702644/43 and webpage for Bárðarbunga and the eruption north of Vatnajökull is www.avd.is/en. The website on safe travel in Iceland is updated regularly: www.safetravel.is

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