



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



STATUS REPORT FROM THE NATIONAL CRISIS COORDINATION CENTRE

Date: 011.09.2014 at 16:00

Regarding: Volcanic Eruption north of Vatnajökull, in Holuhraun

Main Points:

- **The eruption continues in Holuhraun**
- **Earthquakes over M5 in Bárðarbunga**
- **Three likely scenarios**
- **Increased measurements of volcanic gas in the Eastern Fjords**

Volcanic and Seismic Activity:

Volcanic activity: The eruptive activity at Holuhraun continues at similar intensity. Lava flows at similar rates as yesterday. The lava is flowing towards East but widens slightly towards North. The main flow follows the river bed of Jökulsá á Fjöllum. No explosive activity due to the lava and river water interaction has been observed, but steam rises from the lava.

Seismic activity: Earthquake activity in the caldera of Bárðarbunga remains similar to that of the last days. Epicentres are distributed along the northern and south-eastern caldera fault. An earthquake of M 5.3 after midnight and three yesterday M5, 5, M4, 8 and M4, 1. Earthquake activity at the dyke tip has decreased. More than 30 events have been detected since midnight. Low frequency tremor is similar to what has been observed in the last few days.

GPS observations show insignificant crustal movements supporting the assumption that the amount of magma flowing into the dyke continues to be similar to the magma erupted to the surface. Considering the time period since the beginning of the eruption slight movements towards the Bárðarbunga caldera indicate continuing subsidence of the caldera.

Air quality

Air quality in urban areas in East of Iceland: Forecasts indicate that high concentrations of sulphuric gases may be expected in the northern part of the Eastern fjords, Fljótsdalur, Hérað, Jökuldalur, and Vopnafjörður. High concentrations could occur in other areas as well. People who feel discomfort are advised to stay indoors, close the windows and turn off air conditioning. Measurements of air quality can be found on the webpage loftgaedi.is. The Meteorological Office issues warnings if conditions change to the worse. Instructions from the office of the Chief Epidemiologist and The Environmental Agency can be found on their web-sites www.landlaeknir.is and www.ust.is.

Air quality at the eruption site: Gas emissions at the eruption site remain high. As local gas concentrations at the site can be life threatening, people at the eruption site should wear gas masks and gas meters. At the eruption site, local wind anomalies can occur due to thermal convection from the hot lava. This makes the conditions on site extremely dangerous as winds can change suddenly and unpredictably

Precautionary measures:

Efforts to increase the gas monitoring in inhabited areas are on-going, by The Environment Agency of Iceland.

The closures and restrictions of the area north of Vatnajökull are still in force. All roads leading into the area are closed except for scientists and the media that have had limited access with special permit from the Civil Protection and any attempts to go into the restricted area without permission are met with fines. As Sulfur dioxide emission continues, and the advice of Administration of Occupational Safety and Health for all institution and companies working in the area is 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) is 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>



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The Aviation Colour Code for Bárðarbunga remains at 'orange' and the code for Askja at 'yellow'. The Civil Protection Alert phase is in effect.

Risk assessment

Three scenarios are considered most likely:

- Subsidence of the Bárðarbunga caldera stops and the eruption on Holuhraun declines gradually.
- Large-scale subsidence of the caldera occurs, prolonging or strengthening the eruption on Holuhraun. In this situation, it is likely that the eruptive fissure would lengthen southwards under Dyngjufjökull, resulting in a jökulhlaup and an ash-producing eruption. It is also possible that eruptive fissures could develop in another location under the glacier.
- Large-scale subsidence of the caldera occurs, causing an eruption at the edge of the caldera. Such an eruption would melt large quantities of ice, leading to a major jökulhlaup.

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 Dyngjufjökull or Bárðarbunga caldera.

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 there have been collaboration with Vatnajökull National Park on restrictions, traffic and environmental protection. Representatives from the Environmental Agency, the Chief Epidemiologists, the Earth Science Institute of the University of Iceland, Administration of Occupational Safety and Health, the Meteorological Office and the Department of Civil Protection and Emergency Management met today to coordinate measures and general guidelines to the public on prevention and response to volcanic gas <http://avd.is/?p=470>. Today, there was a Coast Guard helicopter flight over the Vatnajökull glacier to install meters on the glacier with scientists. Yesterday, the Prime Minister of Iceland, Sigmundur Davíð Gunnlaugsson met with Civil Protection Authorities at the National Crisis Coordination Centre to get an update of the situation. Later in the day there was a meeting with the Permanent Secretaries of the Ministries on matters related to the operation in Bárðarbunga.

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 the 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. The website on safe travel in Iceland www.safetravel.is is updated regularly and so are their information screens around Iceland. A live webcam of the eruption can be found at www.livefromiceland.is. 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.**

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