

# NATIONAL COMMISSIONER OF THE ICELANDIC POLICE

DEPARTMENT OF CIVIL PROTECTION AND EMERGENCY MANAGEMENT



# STATUS REPORT FROM THE NATIONAL CRISIS COORDINATION CENTRE

Date: 22.09.2014 at 18:00 Regarding: Volcanic Eruption north of Vatnajökull, in Holuhraun

#### **Main Points:**

- The eruption in Holuhraun continues
- The subsidence in Bárðarbunga continues
- Three likely scenarios
- · Cost analysis of the operation

# **Volcanic and Seismic Activity:**

### From the Icelandic Civil Protection Scientific Advisory Board this morning:

The volcanic eruption in Holuhraun continues with similar rate as last few days. The eruption does not seem to be declining. The lava production continues with the same strength. The lava flow is now around the centre of the lava field, which is now around 37 square kilometres. According to new measurements the total volume of the lava is 0,4-0,6 cubic kilometres and the magma flow 250-350 cubic meters pr. second.

**Bardarbunga:** The subsidence of the caldera continues with same rate as before.

**Seismic activity**: Big earthquakes are still detected in the Bardarbunga caldera. Since noon yesterday there have been 12 earthquakes bigger the M3, 0. The biggest one was measured M5,5 at 10:51 yesterday morning making it the second biggest earthquake since this wave of seismic activity started on August 16. Smaller earthquakes were detected in north part of the dyke and around the eruption site. Earthquakes up to M4 have been measured under the north-north-west slopes of Bardarbunga.

**Hydrology**: No change was detected in water monitoring that cannot be explained with changing weather.

### Air quality

# Air quality:

- A prediction from the Icelandic Met Office: Pollution from the eruption is mostly expected northeast and eastnortheast of the eruption today. A map showing the gas forecast can be found on the web page of the Icelandic
  Met Office <a href="www.vedur.is/vedur/spar/textaspar/oskufok/">www.vedur.is/vedur/spar/textaspar/oskufok/</a> An interactive map showing the gas distribution can be
  seen at <a href="www.vedur.is/vedur/spar/gasdreifing">www.vedur.is/vedur/spar/gasdreifing</a>
- The Icelandic Met Office has also opened a web page were people can report if they have detected gas pollution. A link to the page can be found on the Icelandic version of the web page under <a href="Skrá mengun">Skrá mengun</a>.

### **Precautionary measures:**

# Increased monitoring of SO<sub>2</sub> and instructionsfor the public to follow during the eruption:

- People who feel discomfort are advised to stay indoors, close their windows, turn up the heat and turn off air conditioning. Use periods of good air quality to ventilate the house. Measurements of air quality can be found on the webpage <a href="www.loftgaedi.is">www.loftgaedi.is</a> The Meteorological Office issues forecast on its web-page and warnings if conditions change to the worse.
- Instructions from the office of the Chief Epidemiologist and The Environment Agency can be found on their web-sites <u>www.ust.is</u> and <u>www.landlaeknir.is</u>
- The Icelandic Met Office will publish forecasts for sulphuric gases dispersion on the web and in the national radio. It will also be endeavored/seeked to broadcast the forecasts on national television.
- Information and any questions on air pollution can be sent to The Environment Agency through the email <a href="mailto:gos@ust.is">gos@ust.is</a>. The Environment Agency is especially looking for information from people who have been in contact with high concentrations of gas; where they were, at what time it happened, how the gas cloud looked (colour and thickness of the cloud) and how they were affected by it.



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The Aviation Colour Code for Bárðarbunga remains at 'orange'. The Civil Protection Alert phase is in effect.

#### Risk assessment

### Three scenarios are considered most likely:

- The eruption on Holuhraun declines gradually and subsidence of the Bardarbunga caldera stops.
- 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 Dyngjujokull, resulting in a jokulhlaup 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 jokulhlaup, accompanied by ash fall.

### Other scenarios cannot be excluded.

There is still a risk of flood in the area north of Vatnajökull.

### **Cost Analysis**

In accordance with international standards in Civil Protection, a work on finance and cost analysis has been a part of the operation in the Crisis Coordination Centre since the events started in Bardarbunga. Data has been collected from governmental institutions, organisations and private firms. Contracts have been made on expenses, which is important to do as soon as possible in the process. This work is becoming a standard procedure in the Crisis Coordination Centre and a staff member of the Centre, with a special focus on finance, is now a permanent member of the mobilisation of the Crisis Coordination Centre.

### **Cooperation and coordination:**

The coordination of the operation and information is at the National Crisis Coordination Center (NCCC). Every morning there have been meetings in the Icelandic Civil Protection Scientific Advisory Board to evaluate the situation. This morning there was a meeting with Civil Protection authorities in Húsavik, Akureyri, Seyðisfjörður, Hvolsvöllur and Selfoss. Also, there have been meetings with foreign embassies in Iceland, the Vatnajökull National Park and other stakeholders. The National Crisis Coordination Centre has issued temporary permits for scientists and the media to enter the restricted area, subject to certain terms.

#### **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 <a href="www.vegagerdin.is/media/umferd-og-faerd/Halendi.pdf">www.vegagerdin.is/media/umferd-og-faerd/Halendi.pdf</a>. The website on safe travel in Iceland <a href="www.safetravel.is">www.safetravel.is</a> is updated regularly and so are their information screens around Iceland. A live webcam of the eruption can be found at <a href="www.livefromiceland.is">www.livefromiceland.is</a>. 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 <a href="mailto:info@sst.is">info@sst.is</a> Tel: +354-5702644/43 and webpage for Bárðarbunga and the eruption north of Vatnajökull is <a href="www.avd.is/en">www.avd.is/en</a>.

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