



NATIONAL COMMISSIONER OF THE ICELANDIC POLICE

DEPARTMENT OF CIVIL PROTECTION AND EMERGENCY MANAGEMENT



THE SCIENTIFIC ADVISORY BOARD OF THE ICELANDIC CIVIL PROTECTION

Date: 22.09.2014 **Time:** 09:30 **Location:** Crisis Coordination Centre, Skogarhlid

Regarding: Volcanic activity in the Bardarbunga system.

Attending: Scientists from Icelandic Met Office and the Institute of Earth Sciences University of Iceland along with representatives from the Icelandic Civil Protection and the Environmental Agency of Iceland.

Main points

- Volcanic eruption in Holuhraun
- Air quality
- Scenarios

Notes

- 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.
- The subsidence of the Bardarbunga caldera continues with same rate as before.
- Big earthquakes are still detected in the Bardarbunga caldera. Since noon yesterday there have been 9 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 mountain side of Bardarbunga.
- No change was detected in water monitoring that cannot be explained with changing weather.

Air quality:

- A prediction from the Icelandic Met Office: Pollution from the eruption is mostly expected northeast and east-northeast of the eruption today. A map showing the gas forecast can be found on the web page of the Icelandic Met Office www.vedur.is/vedur/spar/textaspar/oskufok/. An interactive map showing the gas distribution can be seen at www.vedur.is/vedur/spar/gasdreifing
- 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 [Skrá mengun](#).
- Instructions:
 - 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 www.loftgaedi.is. 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 www.ust.is and www.landlaeknir.is
 - 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.



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- Information and any questions on air pollution can be sent to The Environment Agency through the email gos@ust.is. 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. In the near future, there will be a page on the IMO's webpage for this type of information.
- 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 Dyngjajokull, 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.

From the Icelandic Met Office:

The Aviation Colour Code for Bardarbunga remains at 'orange'.

The National Commissioner of the Icelandic Police, Department of Civil Protection and Emergency Management

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