



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



THE SCIENTIFIC ADVISORY BOARD OF THE ICELANDIC CIVIL PROTECTION

Date: 22.10.2014 **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.

Main points

- Volcanic eruption in Holuhraun
- Air quality
- Scenarios

Notes

- Scientists in Holuhraun confirm that the volcanic eruption continues with similar intensity as last few days. The lava river runs from the northern end of the crater to the east with great force.
- Seismic activity in Tungnafellsjökull glacier had decreased but activity in Bardarbunga continues to be strong. At 8:36 Tuesday morning an M5,3 earthquake was measured in northern Bardarbunga. Over the last two days ten other earthquakes bigger than M4,0 were recorded in Bardarbunga and in total 31 earthquakes bigger than M3,0.
- Smaller earthquakes are measured in the dyke, most of them are in the area north of Dyngjukull leading to the eruption site in Holuhraun.
- The GPS station in the centre of Bardarbunga show that the subsidence of the caldera continues with similar rate as before.
- GPS measurements show minor movements. No great changes were detected.
- No change was detected in water monitoring that cannot be explained by changing weather.

Air quality:

- Today (Wednesday) and tomorrow (Thursday) volcanic gas pollution can be expected in the northern part of Iceland. 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 a form on its web-page for the public to 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. People experiencing adverse effects should be in immediate contact with their healthcare centre. Measurements of air quality can be found on the webpage www.airquality.is The Meteorological Office issues forecast on its web-page and warnings if conditions change to the worse.



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- Instructions from [The Environment Agency of Iceland](#) and [Chief Epidemiologist](#) can be found on their web-sites.
 - The Icelandic Met Office will publish forecasts for sulphuric gases dispersion on the web and in the national radio.
 - 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.
- 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 Dyngjufokull, 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'.
- From today, the Scientific Advisory Board will meet on Mondays, Wednesdays and Fridays. The next meeting will be held on Friday 24 October.

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