



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



THE SCIENTIFIC ADVISORY BOARD OF THE ICELANDIC CIVIL PROTECTION

Date: 27.10.2014 **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 and the Environmental Agency of Iceland.

Main points

- Volcanic eruption in Holuhraun
- Air quality
- Scenarios

Notes

- The volcanic eruption in Holuhraun continues with similar intensity.
- Seismic activity in Bardarbunga continues to be strong. Over 200 earthquakes have been detected in the caldera over the weekend. There off 44 larger then magnitude 3,0. The biggest ones were M5,3 at 05:54 on Sunday and at 01:05 tonight.
- The GPS station in the centre of Bardarbunga show that the subsidence of the caldera continues with similar rate as it has done over the last few weeks. Observation from air on Friday show that the depression in the caldera is 40 meters.
- Geothermal heat is increasing in Bardarbunga. A cauldron in the southeast corner of Bardarbunga has deepened about 25 meters over a one month period. The depression is considered to be linked to the depression of the Bardarbunga caldera.
- Over 70 smaller earthquakes are detected in the dyke over the weekend. The biggest was M2.1 at 11:51 on Sunday.
- GPS measurements in the active area show minor changes.
- No change was detected in water monitoring that cannot be explained by changing weather.

Air quality:

- Today (Monday) gas pollution can be expected east and southeast of the volcano, but mainly to the south tomorrow (Tuesday).
- The Icelandic Met Office provides two-day forecasts on gas dispersion from the eruptive site in Holuhraun. Most reliable are the [forecast maps approved by meteorologist on duty](#). And although still being developed further, an [automatic forecast](#) (trial run, see [disclaimer](#)) is also available.
- Over the weekend there was a technical breakdown in data transmission from web-connected gas detectors in east and north part of Iceland. The issue is being resolved.
- A new online gas detector will be put up in Höfn in Hornarfjörður tomorrow, Tuesday.
- Instructions:



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- 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.
 - 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 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 next meeting will be held on Wednesday 29 of October.

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