



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



## THE SCIENTIFIC ADVISORY BOARD OF THE ICELANDIC CIVIL PROTECTION

**Date:** 13.02.2015    **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 Environment Agency of Iceland.

### Main points

- Volcanic eruption in Holuhraun
- Air quality
- Scenarios

### Notes

- The volcanic eruption in Holuhraun continues.
- Seismic activity in Bárðarbunga continues to be strong. The strongest earthquake since the last meeting of the Advisory Board on Tuesday was measured M4.0 on Wednesday, 11<sup>th</sup> of February, at 12:16. Few other earthquakes between magnitudes M3.0-3.9 were detected over the period. In total around 60 earthquakes were detected around the caldera since last Tuesday. No earthquake over M5.0 has been detected in Bárðarbunga since 8. January.
- Around 30 earthquakes were detected in the dyke during the same period. The strongest one was M1.2.
- GPS measurements near northern Vatnajökull glacier show continuing slow deflation towards Bárðarbunga.
- A wave of seismic activity began tonight around Herðubreið and Herðubreiðartögl around 02:00 o'clock. The strongest earthquake detected was M2.7 at 08:19 this morning. The activity was strongest after 05:30 this morning. About 30 earthquakes have been detected in the area on 4-6 km depth. The activity is dampening down.
- The National Commissioner of the Icelandic Police and Police Districts Commissioners in North East, East and Southern Iceland have decided (with reference to law on civil protection nr. 82/2008 article 23) to change the scope of the access controlled area north of Vatnajökull glacier. The decision is taken in close collaboration with the Icelandic Met Office, Vatnajökull National Park, the Icelandic Environmental Agency and the Directorate of Health. A map showing the new access controlled area, and GPS coordinates, can be [seen on the web site of the Department of Civil Protection](#).

#### Air quality:

- Today (Friday) gas pollution is expected west and northwest of the eruption site. Tomorrow (Saturday) gas pollution is expected north of the volcano.
- 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, see [Gas forecast](#). And although still being developed further, an automatic forecast, see [Gas model](#), is also available (trial run, see [disclaimer](#)).
- Measurements of air quality can be found on the webpage [www.airquality.is](http://www.airquality.is) Data from handheld gas monitors, spread around the country, can also be found on that page



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- 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](http://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.
  - Check the Icelandic Met Office forecasts for sulphuric gas dispersion on the web as described above.
  - Handheld meters have been distributed around the country for SO<sub>2</sub> measurements three times a day.
  - Information and any questions on air pollution can be sent to The Environment Agency through the email [gos@ust.is](mailto: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.
- The volcanic eruption has now been going on for over five months, the lava flow is still great in Holuhraun and the rate of the subsidence of the Bárðarbunga caldera is still significant. Three scenarios are considered most likely:
  - The eruption in Holuhraun continues until the subsidence of the Bárðarbunga caldera stops. The eruption can still go on for many months.
  - The volcanic fissure may lengthen southwards under Dyngjujökull, resulting in a jökulhlaup and an ash-producing eruption. It is also possible that eruptive fissures could develop in another location under the glacier. If such an eruption would be prolonged it could eventually produce a lava flow.
  - Volcanic eruption in the Bárðarbunga caldera. Such an eruption would melt large quantities of ice, leading to a major jökulhlaup, accompanied by ash fall.

Other scenarios cannot be excluded.

- **From the Icelandic Met Office:** The Aviation Colour Code for Bárðarbunga remains at 'orange'.
- The next meeting will be held on Tuesday 17<sup>th</sup> of February 2015.

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