



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



THE SCIENTIFIC ADVISORY BOARD OF THE ICELANDIC CIVIL PROTECTION

Date: 15.10.2014

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, the Environment Agency of Iceland, and the Directorate of Health.

Main points

- Volcanic eruption in Holuhraun
- Air quality
- Scenarios

Notes

- During last week the eruption continues at a similar intensity and with similar lava flow.
- Around 130 earthquakes have been measured in Bardarbunga over the last 24 hours, which is an increase of what has been the norm over the last two weeks.
- The GPS station in the centre of Bardarbunga is back on-line. The subsidence of the caldera continues with similar rate as before, which is 30-40 cm per day. The subsidence is mainly in the northeast part of the caldera. The subsidence of the caldera is estimated to be 0,75 km³.
- 13 earthquakes greater than M3.0 were recorded over the last 48 hours in or around the caldera. The largest one were M4.8 at 18:51 yesterday.
- Little seismic activity is now detected in the northern part of the dyke and around the eruption site.
- 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) light easterly winds are expected. The gas pollution that has been hovering over the country as well as the gas erupted today will move slowly towards the west. The eastern part of Iceland will therefore be pollution free in the afternoon, but in most other parts of Iceland, pollution can be expected, and air quality can be poor in places. Tomorrow (Thursday) stronger easterly winds are expected. The gas from the eruption site will move towards west and northwest and can affect the following regions: Skagafjörður, Húnaflói, Vestfirðir, Breiðafjörður, Faxaflói. 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



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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 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.

- **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 17 October.

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