

Bárðarbunga: 12.09.2014, 11:30 UTC

Scientists from the Icelandic Met Office and the Institute of Earth Sciences and representatives of the Civil Protection in Iceland attend the meetings of the Scientific Advisory Board of the Icelandic Civil Protection. Representative from The Environment Agency of Iceland and the Chief Epidemiologist and the Directorate of Health, were also present.

Conclusions of the Scientific Advisory Board of the Icelandic Civil Protection:

- The eruptive activity at Holuhraun continues at similar intensity. Lava flows at similar rates as yesterday. The lava is flowing towards East into Jökulsá á Fjöllum, slightly narrowing its path. No explosive activity due to the lava and river water interaction has been observed, but steam rises from the lava.
- Scientists flying over the Bárðarbunga area yesterday reported no new changes in the surface.
- Air quality in urban areas in the East of Iceland:
 - Forecasts indicate that high concentrations of sulphuric gases may be expected in the northern part of the Eastern fjords, Fljótisdalur, Hérað, Jökuldalur, and Vopnafjörður. Forecast indicates that concentration may become highest in Hérað later today. High concentrations could occur in other areas as well. The Environment Agency will set up new monitoring stations in Akureyri and in South Iceland today. Geographical conditions must be considered when estimating air quality. People who feel discomfort are advised to stay indoors, close the windows and turn off air conditioning. Measurements of air quality can be found on the webpage 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.
- Air quality at the eruption site:
 - Gas emissions at the eruption site remain high. As local gas concentrations at the site can be life threatening, people at the eruption site should wear gas masks and gas meters. At the eruption site, local wind anomalies can occur due to thermal convection from the hot lava. This makes the conditions on site extremely dangerous as winds can change suddenly and unpredictably. Scientists in the field carry gas meters for their security.
- Earthquake activity in the caldera of Bárðarbunga remains similar to that of the last days. Epicenters are distributed along the northern and south-eastern caldera fault. Earthquake activity at the dyke tip has decreased. More than 50 events have been detected since midnight. Low frequency tremor has decreased.
- GPS observations:
 - There are minor crustal movements around the dyke supporting the assumption that the amount of magma flowing into the dyke slightly exceeds the flow of magma erupted to the surface.
 - Considering the time period since the beginning of the eruption slow movements towards the Bárðarbunga caldera indicate continuing subsidence of the caldera.
 - A new GPS station was installed on top of Bárðarbunga yesterday to monitor the subsidence of the caldera floor.
- Three scenarios are considered most likely:

- Subsidence of the Bárðarbunga caldera stops and the eruption on Holuhraun declines gradually.
- 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 Dyngjújökull, resulting in a jökulhlaup 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 jökulhlaup, accompanied by ashfall.

Other scenarios cannot be excluded.

From the Icelandic Met Office:

The Aviation Colour Code for Bárðarbunga remains at 'orange' and the code for Askja is 'green'.