Bárðarbunga: 10.09.2014, 11:45 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 to the East at similar rates as yesterday. The lava is flowing in the river bed of Jökulsá á Fjöllum. No explosive activity due to the lava and river water interaction has been observed, but steam rises from the lava.
- Air quality in urban areas in East of Iceland:
    - Concentrations of SO2, comparable to those measured in the last few days, could increase slightly today in the east due to the direction of the wind. Efforts to increase gas monitoring in inhabited areas are ongoing. Data from The Environmental Agency SO2 monitoring stations in Reyjahlíð, Egilsstaðir and Reyðarfjörður are accessible on the web-site of the institute. Instructions from the office of the Chief Epidemiologist and The Environmental 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.
    - Scientists on the site have had to leave the area repeatedly as concentrations of gas reached dangerous levels due to sudden changes in wind conditions.
    - 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.
- Around 80 earthquakes have been recorded since midnight. The largest two earthquakes, M 5.5 and M 4.9 occurred on the northern rim of Bárðarbunga caldera. Low frequency tremor is similar to what has been observed in the last few days.
- GPS observations show insignificant crustal movements supporting the assumption that the amount of magma flowing into the dyke continues to be similar to the magma erupted to the surface.
- Three scenarios are still 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 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.
    - 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.

Other scenarios cannot be excluded.

From the Icelandic Met Office:

The Aviation Colour Code for Bárðarbunga remains at ‘orange’ and the code for Askja at ‘yellow’.