Bárðarbunga: 09.09.2014, 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 now 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 yesterday in Reyðarfjörður, may affect people with underlying respiratory problems although others should not experience any significant discomfort.
    - Efforts to increase the gas monitoring in inhabited areas are on-going. Data from newly installed SO2 monitoring stations will be accessible later today. Yesterday 8th September no chemical pollution, related to the eruption, was detected and none is expected today. 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 150 earthquakes have been recorded since midnight. The largest two earthquakes, 3.8 and 5.2 in magnitude occurred on the northern rim of Bárðabunga Caldera. Small but continuous low frequency tremor has been observed for 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.
- Four scenarios are still considered most likely:
    - The migration of magma could stop, resulting in a gradual reduction in seismic activity and no further eruptions.
    - The dyke could reach the Earth's surface at different locations outside the glacier. Lava flow and/or explosive activity cannot be excluded.
    - The intrusion again reaches the surface under the glacier leading to a significant subglacial eruption. This would most likely produce a flood in Jökulsá á Fjöllum and perhaps explosive, ash-producing activity.
    - An eruption in Bárðarbunga. The eruption could cause an outburst flood and possibly an explosive, ash-producing activity. In the event of a subglacial

eruption. Flooding would most likely affect Jökulsá á Fjöllum, but it is not possible to exclude flood paths to Skjálfandafljót, Kaldakvísl, Skaftá and Grímsvötn.

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’.