



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



**THE SCIENTIFIC ADVISORY BOARD OF THE ICELANDIC CIVIL PROTECTION**

**Date:** 27.01.2017    **Time:** 09:00    **Location:** National Crisis Coordination Centre, Skógarhlið.

**Regarding:** Seismic activity in Katla volcano.

**Attending:** Representatives from the Icelandic Civil Protection, the Icelandic Met Office, Institute of Earth Sciences University of Iceland, and Police Commissioners in South Iceland, North East Iceland and Westman Island.

**Main topic**

- Katla
- Bárðarbunga
- Hazard monitoring

**Notes**

- Seismic unrest in Katla volcano has been above normal activity since August 2016, with three earthquakes larger than M4,0 and several earthquakes greater than M3,0. The seismic activity is shallow and sparse distribution within the caldera. No eruption tremor has been measured during the seismicity. Modest increase in geothermal activity has been observed. GPS stations near Katla caldera indicate inflation in the upper crust since 2010. With increased activity in Katla, assumption might be taken as that volcanic eruption is more likely to happen during the unrest than in normal conditions. Therefore monitoring officials and authorities must be on guard.
- Following the large volcanic eruption in Holuhraun and the caldera subsidence in Bárðarbunga, the volcano experienced a major deflation. During the eruption seismic activity in Bárðarbunga was extensive but came to a halt when the eruption stopped at the end of February 2015. The seismic activity increased in September 2015 and has continued since that time with tens of earthquakes of magnitude M3,0-M4,5. Deformation measurements show that inflation started immediately after the eruption stopped and that magma has been accumulating steadily under the Bárðarbunga caldera since then. Most likely it will take some years until magma pressure reaches similar values as prior to the eruption in 2014. Volcanic activity in the coming years can though not be ruled out. Limited monitoring are of geothermal activity in Bárðarbunga, but as far as the data reveal there has only been some minor changes during the last few months. Monitoring of the geothermal activity is important due to possible water accumulation inside the caldera.