Eruption in Eyjafjallajökull
Status Report: 19:00 GMT, 28 April 2010

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Compiled by: *MJR / SSJ / MTG / FS / SRG / GS / KH*

Based on: IMO seismic monitoring; IES-IMO GPS monitoring; IMO river gauges; web cameras of the eruption site from Vodafone, Mila, and Múlakot; IMO weather radar measurements; information from the local police; and geologist's observations of Eyjafjallajokull, west of the eruption site (no overflight today)

Eruption plume:

Height (a.s.l.):	Plume not detected above a cloud level of 4 km (~13,000 ft).
Heading:	West-northwest from the eruption site.
Colour:	White (steam) clouds were visible over the advancing lava front. Grey-coloured (ash) clouds were seen occassionally over the eruptive crater.
Tephra fallout:	Light ash-fall noted at Hvolsvöllur, located ~32 km west of the eruption site; some additional ash-fall observed on Eyjafjallajökull, west of the eruption site.
Lightning:	No detections over the eruption site since 19 April 2010.
Noises:	Booming noises often heard from the eruption.

Meltwater:

Discharge of meltwater from Gígjökull increased signifcantly today, reaching levels not exceeded since 16 April 2010. Meltwater draining beneath the old Markarfljót bridge, ~18 km downstream from Gígjökull, had a temperature of over 11°C. However, the electrical conductivity of Markarfljót is lower than in previous days. IMO hydrologists gauged meltwater discharge and the bridge, and water samples were taken for analysis. The conductivity of Krossá is unusually high, with a value of 300 μS cm^{-1} recorded yesterday. Additionally, the conductivity of Steinholtsá was over 170 μS cm^{-1} today, which is an abnormally high level, unless geothermal water is entering the catchment. Ash fall or ash-polluted snow are possible reasons for the high conductivity of Steinsholtsá. Likewise, lava from the former Fimmvörðuháls eruption could also be causing contamination of Krossá.

Conditions at eruption site:

Conditions at the eruption site are thought to be similar to the preceding five days. Lava continues to flow northward, where it now descends partway down the Gígjöjkull glacier.

Seismic tremor: Intensity comparable to the preceding five days of eruptive activity.

Earthquakes: At 03:36 GMT, an M_l 1.5 earthquake was registered at shallow depth beneath the summit caldera. Additionally, within the caldera of the Katla volcano, an M_l 1.7 earthquake occurred at 15:28 GMT at ~6 km depth.

GPS deformation: Gradual horizontal displacement toward the centre of Eyjafjallajökull, together with vertical subsidence.

Magma flow: No measurements today; however, the intensity of the eruption suggests that the discharge level is similar to the five preceding days.

Other remarks: Gas emissions from meltwater leaving Gígjökull represents a localised hazard, especially within the moraines of the glacier. The main gasses are CO_2 and probably SO_2. These gases are heavier than air, and could linger in front of Gígjökull if light winds prevail. Despite a single earthquake occurring, there are no signs of untoward changes within the Katla volcano.

Overall assessment: Plume elevations and magma discharge levels remain similar to the preceding days of activity. Lava continues to flow north from the eruption site toward the head of the Gígjökull glacier. From steam emisions over Gígjökull, it is likely that lava is exploiting the drainage pathway created in the glacier by earlier floods. There are no measurable indications that the summit eruption of Eyjafjallajökull is about to end.