

Eruption in Eyjafjallajökull

Status Report: 16:00 GMT, 03 May 2010

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Based on: IMO seismic monitoring; IES-IMO GPS monitoring; IMO hydrological data; web cameras of the eruption site from Vodafone; IMO weather radar measurements, MODIS satellite image; information from scientists at Gígjökull, information from the Icelandic Coast Guard flight.

Eruption plume:

Height (a.s.l.): Largest plumes observed at 5-5,5 km height (17-18,000 ft) estimated from the Icelandic Coast Guard (ICG) flight at 14:30. The plume has also been observed on IMO's weather radar at 4.0-5.2 km height between 13:00 and 15:00 GMT. The plume rises higher after large explosions.

Heading: East-south-east to south-east from the eruption site. Plume track clearly visible at least 200 km from the eruption site and probably another 200 further to the SE on MODIS (11:20 GMT) satellite imagery.

Colour: Observation from ICG-flight: Dark grey (ash) clouds observed over the eruptive site. White (steam) plumes rising from Gígjökull outlet glacier, north of the eruption site (similar as yesterday).

Tephra fallout: Moderate ash-fall reported in Álftaver, 65-70 km east-south-east of Eyjafjallajökull (07:00-10:00 GMT). An ash cloud also observed over village of Vík (10:00 GMT), 40 km south-east of Eyjafjallajökull.

Lightning: No detections today over the eruption site (16:00 GMT).

Noises: Scientists working at Gígjökull regularly hear explosions and booming sounds and feel the ground vibrate. The vibrations are not felt in 3-4 km distance.

Additional note: The scientists at Gígjökull experienced discomfort due to gas.

Meltwater: Today water temperature at the Markarfljot bridge was measured 11°C but about 3°C in a 2 km distance from Gígjökull. Water is flowing on both sides of the glacier and pulses of meltwater flow down the channels every 10 minutes or so (according to scientists at Gígjökull). Water level gauge at Gígjökull also records the pulses. Temperature measurements at Markarfljot bridge show a pulse of water temperature up to 17°C at 06:00 GMT this morning and another smaller pulse reaching about 15°C between 08:00 and 09:00. Water temperature has now dropped down below 4°C.

Conditions at eruption site: The eruption site was seen on a video camera around noon (13:00 GMT). Dark ash clouds propagating eastwards. The lava is probably still propagating down Gígjökull producing more meltwater and steam.

Seismic tremor: Tremor levels intensified last night (2 May) and have remained high since. This intensification is seen in the frequency range 0,5-2 Hz but not above 2Hz (2-4 Hz).

Earthquakes: A few earthquakes occurred early this morning. They seem to be located at about 18 km depth just south of the eruption site.

GPS deformation: Horizontal displacement towards the center of Eyjafjallajökull volcano. Vertical displacement at stations closest to the eruption site had indicated increased subsidence rate in the last few days but now the deformation is similar as before 29. April.

Other remarks: No measurable geophysical changes within the Katla volcano.

Overall assessment: The overall activity has not changed much since yesterday (from the last report). Presently there are no indications that the eruption is about to end.