

## Eruption in Eyjafjallajökull

Status Report: 18:00 GMT, 05 May 2010

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Based on: IMO seismic monitoring; IES-IMO GPS monitoring; IMO hydrological data; IMO weather radar measurements, MODIS satellite image; reports from people via phone and the IMO web site, information from the Icelandic Coast Guard flight yesterday.

### Eruption plume:

Height (a.s.l.): Plume at 5.5-6.5 km height according to IMO's weather radar; reached up to 7.2 km 40 SA of eruption site at 17:45 and 8 km height just SE of eruption site at 16:55. Information from ISAVIA: 18-20,000 ft at 14:50 GMT. Information from a Boeing 757 plane at 17:50: black plume in 21,000 ft (6.5 km).

Heading: East-south-east over land and then towards southeast according to a MODIS image at 12:45.

Colour: Black (see info. above). Bluish fog seen from Álftaver (65 km distance).

Tephra fallout: Sólheimaheiði, Hjörleifshöfði and Álftaver (up to 70 km distance).

Lightning: No detections today over the eruption site.

Noises: Loud noises at farms south of the volcano troubled people during last night. Reports from people hearing loud noises in up to 200 km distance west and northwest.

Meltwater: Due to mild weather and snowmelt, increase in discharge was noticed in Markarfljót peaking at midnight. Discharge from Gígjökull seems to be decreasing and oscillations in water temperature at the old Markarfljóts bridge relate to air temperature. Pulses of meltwater from Gígjökull are unnoticeable. At midnight electrical conductivity began to rise in Jökulsá á Sólheimasandi. Since then the conductivity has raised from 170  $\mu\text{S}/\text{cm}$  up to 590  $\mu\text{S}/\text{cm}$  (hr:15:00). Possible reason for this is volcanic ash from the eruption getting in to the meltwater from Sólheimajökull. Samples of the water have been collected for analysis.

Conditions at eruption site: The eruption sight was not visible today. From the flight of the Icelandic Coast Guard (ICG) 04.05.2010: The crater continues build up in the northern most ice cauldron. Lava flows to the north and spreads at 500 m a.s.l. The lava tongue is about 200 m wide and lava

channels that join at the tongue are about 30-60 m wide. The lava channels get wider every day.

**Seismic tremor:** Similar to yesterday.

**Earthquakes:** Continued seismicity, between 20 and 30 earthquakes have been located beneath the ice cap since 3 May, first deep (18-23 km) but

**GPS deformation:** Significant changes in horizontal movement at GPS stations around Eyjafjallajökull have been observed in the last 48 hours. Renewed northward displacement is seen at stations BAS2 and STE2, located just north of the ice cap. To the south, westward movement is apparent at THEY, while station FIM2 - located further east - shows eastward movement.

**Other remarks:** Weather conditions probably cause the loud noises to be heard over long distances.

**Overall assessment:** Increased seismicity suggests that new material is intruding from deep below Eyjafjallajökull and latest GPS-observations suggest inflation. So far, GPS-signals are not large. There are no signs that the eruption is about to end.