

## Eruption in Eyjafjallajökull

Status Report: 11:00 GMT, 7 June 2010

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Based on: IMO seismic monitoring; IES-IMO GPS monitoring; IMO hydrological data; web cameras, lightning detection system, web-based ash reports from the public and research expedition of the IES to the summit on 3/6-2010.

### Eruption plume:

Height (a.s.l.): On 4 June at 1950h the plume was at a height of 4.5 km. Last night a plume of steam was observed from a plane at a height of 4.5 - 6 km. This morning a steam plume was observed for a short period at a height of 3 km.

Heading: to the southwest on 4 and 5 June. Yesterday and this morning to the south.

Colour: Mostly white at the top and grayish and dark at the bottom following explosive activity.

Tephra fallout: Off and on near the crater. Considerable ash drift on 4 June.

Lightning: An eyewitness at Ásólfsskálaheiði (9 km SW of crater) observed two small flashes of lightning in the evening of 4 June. Four lightning flashes were recorded yesterday morning, 6 June.

Noises: Considerable rumbling was heard at Raufarfell (10 km south of the crater) in the afternoon of 4 June.

Meltwater: Low discharge from Gígjökull.

Conditions at eruption site: Considerable steam emanates from the big crater and has increased since 3 June. In the western part of the crater, a new crater has formed at the site of explosive activity. Tremor pulses late 6 June accompanied steam plumes from this new crater. The plumes and explosions are small. Caving in of lava in the conduit can be heard between explosions. Only a part of the new active crater has been seen due to the steam. The glacial ice at the top is advancing rapidly to the Gígjökull outlet glacier.

Seismic tremor: In the afternoon of 4 June an increase in tremor was recorded at seismic stations around the volcano, but decreased again in the evening. Small pulses of tremor were recorded off and on during the

night. At around 0900h on 5 June the tremor reached a maximum before decreasing again. An increase was recorded late 6 June for a short time and small pulses were recorded last night. The tremor has been predominantly at high frequencies.

**Earthquakes:** A few small, shallow earthquakes have been recorded beneath the top crater in the last few days.

**GPS deformation:** No significant deformation at sites around Eyjafjallajökull.

**Overall assessment:** Some eruptive activity is still in the western side of the crater. Magma explosions occur off and on producing ash, which falls near the crater. This explosive activity is accompanied by an abrupt increase in tremor. White steam clouds have reached a height of 6 km following these explosions. We continue to monitor the volcano closely.