

Eyjaflallajökull, 2010

In 2010 an active volcano in southern Iceland, named Eyjaflallajökull, erupted for the first time since 1823. Prior to the 2010 eruption, there were only 3 recorded eruptions (in 920, 1612 and 1821); the 1821 eruption lasted approximately 14 months! Each of the recorded eruptions has either been preceded or followed by the eruption of Katla (another Icelandic volcano about 15 miles to the east).

Eyjaflallajökull is situated on the southern tip of Iceland, on the boundary between the North American and Eurasian continental plates; this boundary is known to be moving apart approximately 2cm every year and goes right through Iceland!

Unsurprisingly, it is not the only volcano in Iceland however it is incredibly famous for the trouble it caused in 2010...

The eruption in 2010 had some early warning signals that trouble was brewing beneath the earth's surface: clusters of small earthquakes (3000 recorded) began to occur from January that grew in intensity and frequency. The ground also began to change shape, to swell. These were the indicators that an eruption was imminent.

By March 20th, the volcano had its first eruption: lava had found its way through a vent/crack in the ground- a fissure volcano - but this was not the violent eruption that scientists predicted. On April 14th, after a quiet period, lava surfaced at the crater and melted the ice above it, causing issues in the local area - local rivers and streams could not cope with the mud, ice and meltwater adding to their load, farmland became flooded and roads were damaged. 800 people were told to evacuate. Then the meltwater got into the main vent and caused a series of explosions at the summit. This resulted in a plume of steam and ash rising 10,000 metres into the atmosphere.

It was this plume (cloud) that ultimately caused disruption on a worldwide scale! As winds picked up, the plume was blown southeast, over the North Atlantic Ocean and towards northern Europe, causing the biggest disruption to air travel for 65 years! Aeroplane companies suspended their flights for six days and countries closed their airspace to prevent anything from flying over them, as there were concerns about

what the ash cloud would do to the engines of the planes: 100,000 flights were cancelled and over 10 million people were left stranded.

On August 10th, seismologists labelled the volcano as dormant and all that can be seen is snow!

Did you know?

- Eyjafjallajökull is a stratovolcano on the southern tip of Iceland.
 - Its summit is 1651m above sea level.
 - Its crater is 4km wide!
- Stratovolcanoes are
 - made up of pyroclastic layers (layers of cooled, hardened lava and ash).
 - considered to be the most violent type of volcano.
 - make up approximately 60% of the Earth's volcanoes.
- Eyjafjallajökull means the glacier of the mountains of the islands.
- Eyjafjallajökull is underneath a glacier meaning that when it erupts there is tonnes of snow and ice to melt first (about 100 square kilometres of it), which is what causes the steam and ash clouds.