

Airlines on alert as eruption begins in Iceland

August 23 2014, by Jenna Gottlieb



In an in an image from an Aug. 19, 2014 video, a sign is posted on the road next to Bardarbunga, a subglacial stratovolcano located under Iceland's largest glacier. On Saturday, Aug. 23, 2014, Iceland closed airspace over the Bardarbunga volcano on Saturday after the Meteorological Office said an eruption had begun under the ice of Europe's largest glacier. The English portion of the sign reads, ""Uncertainty phase due to unrest in Bardarbunga". (AP Photo/Courtesy Channel 2 Iceland)

Iceland's Bardarbunga volcano burst forth with a small eruption Saturday under the ice of Europe's largest glacier, scientists said, prompting the country to close airspace over the area.

Thousands of small earthquakes have rattled the volcano, located deep beneath the Vatnajökull glacier, in the last week. Icelandic Meteorological Office vulcanologist Melissa Pfeffer said Saturday that seismic data indicated that an eruption had begun, with magma from the volcano melting ice within the glacier's Dyngjufjökull icecap,

The remote area, 200 miles (320 kilometers) east of the capital of Reykjavik, is uninhabited.

The Civil Protection Department said scientists flew over the ice cap Saturday afternoon but saw no visible signs of the eruption on the surface. Late Saturday the Met Office said there were "no signs of ongoing volcanic activity."

Still, authorities raised the country's aviation alert to red—the highest level on a five-point scale—indicating the threat of "significant emission of ash into the atmosphere."

Icelandic authorities declared a no-fly zone of 100 nautical miles by 140 nautical miles around the eruption as a precaution, but did not shut down air space over most of the island nation in the North Atlantic.

"All airports are open and flights are on schedule," said spokeswoman Olof Baldursdóttir.

A 2010 eruption of Iceland's Eyjafjallajökull volcano produced an ash cloud that caused a week of international aviation chaos, with more than 100,000 flights cancelled.

Pfeffer said it was not clear when, or if, the eruption would melt through the ice—which is between 100 to 400 meters (330 to 1,300 feet) thick—and fling steam and ash into the air. She said it could take up to a day for the ice to melt—or the eruption might remain contained beneath

Europe's largest glacier.

Scientists were monitoring a hydrological station downstream from the volcano for flooding, a common result of volcanic eruptions in Iceland.

Pfeffer said the amount of ash produced by the new eruption would depend on the thickness of the ice.

"The thicker the ice, the more water there is, the more explosive it will be and the more ash-rich the eruption will be," she said.

Iceland sits on a volcanic hot spot in the Atlantic's mid-oceanic ridge and eruptions occur frequently, triggered when the Earth's plates move and when magma from deep underground pushes its way to the surface.

Well-practiced emergency procedures mean eruptions in Iceland usually do not cause deaths. Authorities evacuated several hundred people, mostly hikers, earlier this week from the highlands north of the Vatnajökull glacier as a precaution.

But the impact of the tiny island's volcanoes has been felt around the world.

Millions of people were stranded in April 2010, when aviation officials closed Europe's air space for five days out of fear that ash from Eyjafjallajökull could harm jet engines.

European aviation authorities later changed their policy, giving airlines detailed information about the location and density of ash clouds but leaving decisions to airlines and national regulators.

A 2011 eruption of Iceland's Grimsvotn volcano was far more powerful than Eyjafjallajökull but cause much less disruption to aviation.

The budget airline EasyJet, which flies between Britain and Iceland, said it was operating as usual. It said it would use ash-detection technology, satellite data and other information "to determine what, if any, changes it should make to its flying program" in the event of an ash cloud.

The chunk of closed airspace over the volcano extends over the North Atlantic, and Virgin Atlantic said a London-to-San Francisco flight took a detour to avoid it.

Nicholas Wyke, a spokesman for continental air traffic controller Eurocontrol, told The Associated Press in an e-mail that it was difficult to estimate how many flights typically crossed that airspace, noting that trans-Atlantic flights vary their routes based on wind conditions.

"It is unlikely that this danger area will have any significant effect on north Atlantic traffic," he said.

More information: Icelandic Meteorological Office: en.vedur.is/

© 2014 The Associated Press. All rights reserved.

Citation: Airlines on alert as eruption begins in Iceland (2014, August 23) retrieved 18 June 2024 from <https://phys.org/news/2014-08-airlines-eruption-iceland.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--