

## Extra Feature Story

### Ash Cloud From Icelandic Volcano Disrupts Global Trade

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**An erupting Icelandic volcano has sent clouds of ash spewing into the atmosphere, triggering massive and costly airline delays starting earlier this month. Researchers are trying to figure out how long the disruption will last and if a more dangerous eruption from a neighboring volcano is possible.**

Ash and dust from Eyjafjallajokull volcano spread over the skies of Northern Europe, endangering what is some of the world's most crowded airspace.

More than 17,000 flights were canceled and airlines could lose \$200 million each day their planes are grounded. Thousands of people are trapped in airports around the world -- some with limited supplies and money -- waiting for flights to and from Europe.

Despite concerns that the skies are not yet safe enough for travel, European transportation officials are taking heat from stranded passengers and commercial airlines who are eager to get off the ground.

#### **What caused the ash cloud?**

Underneath its glacial icecaps, Iceland's geography is peppered with volcanoes -- openings in the Earth's crust through which gases and hot molten rock called magma escape.

As the magma shoots up and blasts through the ice, it creates a very fine ash that then goes into the atmosphere.

According to government meteorologist Derrick Ryall, the volcano had been erupting since late March, but at a relatively low level. "It was only a couple of days ago that it erupted big-time, got up to about 20,000, 30,000 feet, so, that's a lot of ash, and then caught the winds at high levels that -- and, by chance, at the moment, the winds are just carrying it straight across towards [Britain]," Ryall said.

#### **Ash disrupting food imports, medical care for soldiers**

Transportation officials closed European airspace because the tiny, sharp, abrasive particles of rock can sandblast plastic windshields and make it impossible for pilots to see. If it gets sucked into engines and compressed, it can clog turbine blades, block the fuel nozzles and cause flameouts, leading the engine to stall.

The flight delays could have far-reaching economic consequences. Kenya's vegetable and flower exporters are taking the hit from grounded flights that have prevented them from sending their goods to Europe. Already struggling, Kenya's economy is losing \$3 million a day as a result of the travel disruptions, according to The New York Times.

Wounded soldiers from Afghanistan and Iraq are typically sent to hospitals in Europe but the volcano's eruption has limited medical flights from combat areas, preventing soldiers from receiving better medical care.

**Previous eruption lasted more than a year**

Iceland's Eyjafjallajökull volcano last erupted in December 1821 and continued for more than a year until January 1823 -- a worrisome thought for researchers who are trying to figure out how long ash and dust will continue to blow into the sky and disrupt global air travel.

Volcanologists – sometimes spelled “vulcanologists” -- study the shape and size of the ash emitted by the volcano to see how much longer it could be active. If Eyjafjallajökull awakens the neighboring volcano Katla, it could cause an even larger eruption that creates more havoc on the environment and the global economy. "The potential eruption of Iceland's volcano Katla could send the world, including the USA, into an extended deep freeze," reported USA Today's Science Fair blog.

Even small volcanoes in faraway places have the potential to cause geological disturbances across the globe.

NewsHour correspondent Jeffrey Brown spoke to Simon Winchester, author of "Krakatoa: The Day the World Exploded: August 27, 1883," about a massive 19th century volcanic eruption on the Indonesian island. That eruption vaporized the island, changed the color of sunsets for years and temporarily lowered the global temperature. It even had a great impact on art and literature from the period, Winchester said.

-- Compiled for NewsHour Extra by Kate Stanton

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