

Iceland's main volcanic eruptions

March 20 2021



The sky around Iceland's capital turned red after a volcanic eruption on Friday

A volcano erupted just 40 kilometres (25 miles) from Iceland's capital Reykjavik on Friday, turning the sky crimson as streams of red lava spewed from the ground.

Known as the land of fire and ice, Iceland is Europe's biggest and most

active volcanic region, home to a third of the lava that has flowed on Earth since the Middle Ages, according to Visit Iceland.

The vast North Atlantic island borders the Arctic Circle where it straddles the Mid-Atlantic Ridge, a crack on the ocean floor separating the Eurasian and North American tectonic plates.

The shifting of these plates is in part responsible for Iceland's intense volcanic activity.

Thirty-two volcanic systems are currently considered active in the country.

Here are the main eruptions in Iceland's history:

2014-2015

The awakening of Bardarbunga, a [volcano](#) located under the Vatnajökull glacier—Europe's largest ice cap—in the heart of southern Iceland's uninhabited highlands, was the most recent eruption before Friday's.

The volcano erupted for five months, both under the ice and breaching the surface in a fissure at the Holuhraun lava field, creating Iceland's biggest basalt lava flow in more than 230 years but causing no injuries or damages.

2011

The Grimsvotn volcano, also located under the Vatnajökull glacier, is Iceland's most [active volcano](#). Its latest eruption was in May 2011, its ninth since 1902. Over one week, it spouted a cloud of ash 25 kilometres (15 miles) into the sky, causing the cancellation of more than 900 flights, primarily in the UK, Scandinavia and Germany.

2010

In April 2010, enormous plumes of ash billowed into the sky for several weeks during the eruption of the Eyjafjallajökull volcano, causing the biggest air traffic disruption in peacetime until the Covid-19 pandemic. Some 100,000 flights were cancelled, leaving more than 10 million travellers stranded.

1973

In one of the most dramatic eruptions in the country's recent history, the island of Heimaey in the Westman Islands awoke one January morning to an eruption in a fissure just 150 metres (yards) from the town centre. The eruption of the Eldfell volcano occurred not only in a populated area—one of the country's then most important fishing zones—but it also surprised locals at dawn. A third of homes in the area were destroyed and the 5,300 residents were evacuated. One person died.

1918

Considered one of Iceland's most dangerous volcanoes, Katla's last eruption added five kilometres of land mass to the country's southern coast. Located under the Myrdalsjökull glacier, when Katla erupts it ejects large quantities of tephra, or solidified magma rock fragments which are disseminated in the air and carried by the powerful glacier flooding caused by melting ice. Averaging two eruptions per century, Katla has not erupted violently for more than 100 years and experts say it is overdue.

1875

Virtually unknown at the time, Askja, Iceland's second-biggest volcano system, erupted in three distinct phases. Two of the three ash clouds rose

more than 20 kilometres (12 miles) into the sky. The toxic fallout across Iceland, which in some places reached a thickness of 20 centimetres (eight inches), killed livestock, contaminated the soil and sparked a wave of emigration to North America. Isolated in a plateau and far from civilisation, Askja is today a popular tourist attraction and its lava fields were used to train astronauts for the 1965 and 1967 Apollo missions.

1783

The eruption of the Laki volcanic fissure in the south of the island is considered by some experts to be the most devastating in Iceland's history, causing its biggest environmental and socio-economic catastrophe: 50 to 80 percent of Iceland's livestock was killed, leading to a famine that left a quarter of Iceland's population dead.

The volume of lava, nearly 15 cubic kilometres (3.6 cubic miles), is the second-biggest recorded on Earth in the past millennium.

The meteorological impact of Laki's eruptions had repercussions for several years in the Northern Hemisphere, causing a drop in global temperatures and crop failures in Europe as millions of tonnes of sulphur dioxide were released. Some experts have suggested that the consequences of the eruption may have played a part in triggering the French Revolution, though the issue is still a matter of debate.

The volcano's 130 still-smoking craters were placed on UNESCO's World Heritage list in 2019, along with the entire Vatnajökull national park to which it belongs.

934

The eruption of Eldgjá—which means "canyon of fire" in Icelandic—is the biggest basalt lava eruption the world has ever seen. Part of the same

volcanic system as the mighty Katla volcano, the Eldgja fissure is 75 kilometres long, stretching to the western edge of Vatnajökull. The [eruption](#) led to two large lava fields covering 780 square kilometres (301 square miles).

© 2021 AFP

Citation: Iceland's main volcanic eruptions (2021, March 20) retrieved 25 April 2024 from <https://phys.org/news/2021-03-iceland-main-volcanic-eruptions.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>
--