

Tonga: Major Eruption in the South Pacific

Chris Shieff

18 January, 2022



On January 15, there was a major volcanic eruption in Tonga - an island nation in the South Pacific.

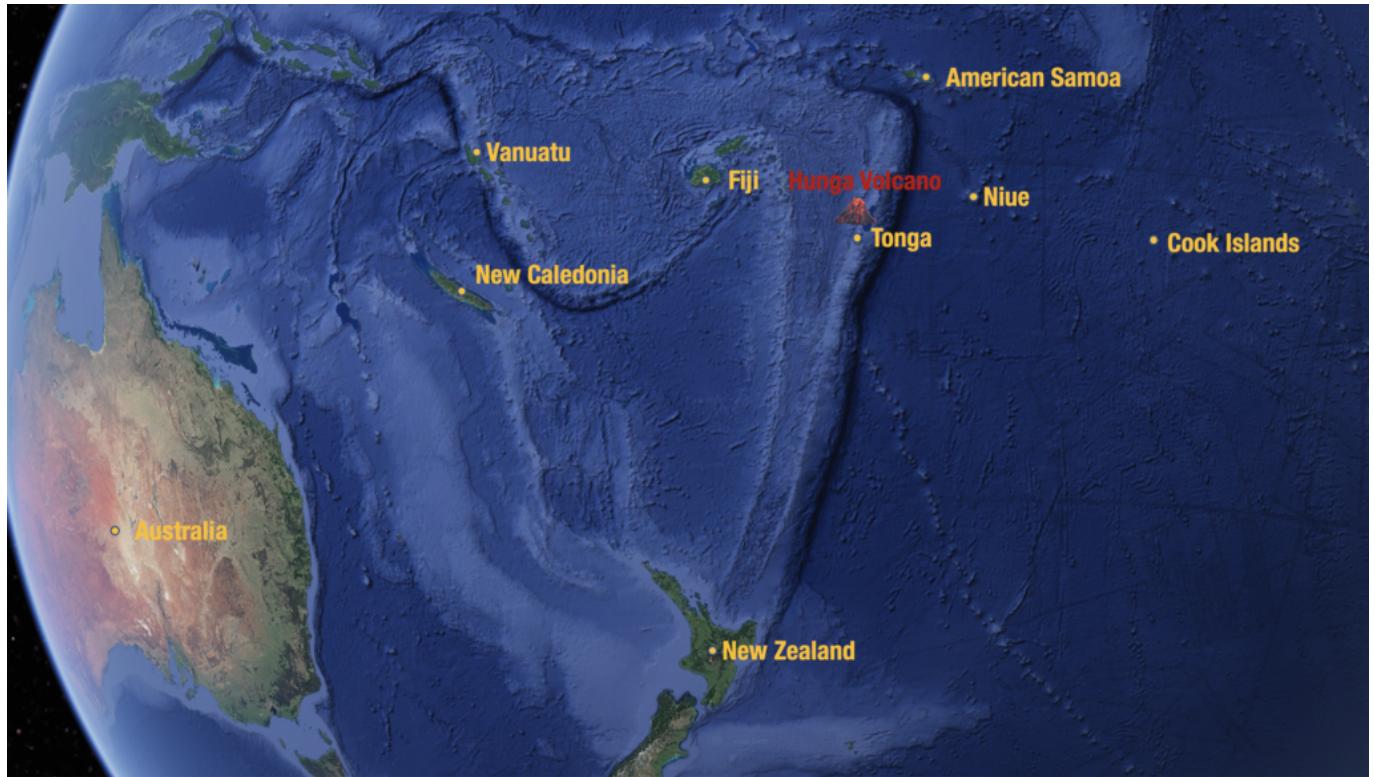
It was perhaps the most explosively violent eruption of the 21st century to date. Since then, the volcano has continued to produce ash as high as **FL630** and has potential to continue to cause major flight disruptions throughout the region.

Here's what you need to know.

Where is it?

The *Hunga-Tonga-Hunga-Ha'apai* volcano, or just **Hunga Volcano** for short, is found approximately 30nm north of Tonga's capital, Nuku'alofa. You won't find it on maps because it is hidden underwater. It is nestled squarely within the Tonga Trench, and is part of the Pacific's infamous Ring of Fire - where eruptions and earthquakes come with the territory.

Because it is submerged, the risk to airports in the region is actually two-fold - from **ash**, and from **tsunamis** caused by seismic activity under the sea.



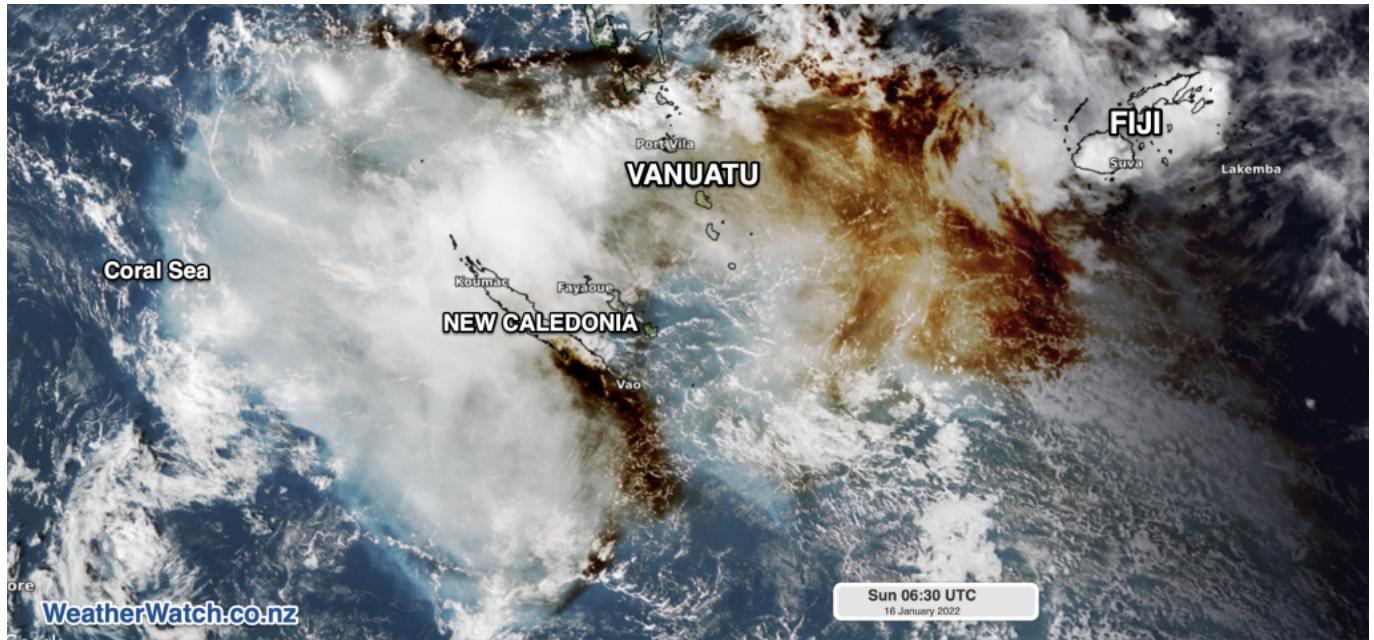
The Hunga Volcano is found underwater, just to the north of Nuku'alofa, Tonga.

What has been happening?

The Hunga Volcano has been stirring for a while. In December there were small eruptions which produced ash and disrupted flights at Tonga's main airport, **NFTF/Fua'amotu**. Then on January 15, there was a much more violent eruption.

Hunga produced a large ash plume, 150 nm wide and extending up to FL630 well west of Tonga. The remnant of this cloud is currently over New Caledonia. The current VAAC forecast is good, with ash emission expected to stop.

NFTF/Fua'amotu is currently **closed due to ash on the ground**, and is expected to re-open at 0630 local on Jan 21 (1730z on Jan 20) but this may well be extended. Airports nearby – especially in **Fiji, New Caledonia** and **Vanuatu** have so far escaped major disruptions.



Hunga's ash plume reached hundreds of miles west of Tonga.

Over the weekend, widespread Tsunami warnings caused by Hunga were issued for coastlines as far away as **South America, the US and Japan**. These have since been lifted, however Tonga itself was badly impacted by waves. It remains in a state of emergency and is still cut off from the world as internet and phone services are reportedly down. Reports of damage are still coming through.

The majority of major airports in the South Pacific Islands are at or near sea-level which leaves them especially vulnerable to this threat. They are also very remote. If Hunga erupts again, widespread closures could happen with little notice.



Hunga's Tsunami threat puts low level airports at risk throughout the South Pacific.

Outlook

While things have started to subside since the eruption, it's not clear whether this was a one-off, or if we are in the middle of an 'eruptive sequence.' In other words, there may be more to come.

Stay Updated

VAAC Wellington handles volcanic alerts for the South Pacific region. You can view new advisories as they are issued, [here](#).

Tonga battered by Cyclone Gita

David Mumford
18 January, 2022



On Feb 14, operations resumed at Tonga's main international airport, NFTF/Fua'amotu, after it was closed for 2 days for the passage of Tropical Cyclone Gita.

The cyclone caused extensive damage across Tonga, and the government has declared a state of emergency. According to the British Met office, Gita was the most powerful Cyclone to hit Tonga in over 60 years, battering the island nation with winds of over 120kts at its peak.

At least 30 people were reportedly injured during the storm, and around half the buildings suffered damage in Nuku'alofa, the capital of Tonga. Roads across the main island of Tongatapu have been obstructed by storm wreckage and downed power lines, and widespread power outages have also been reported.

At the airport itself, the domestic terminal is still closed due to damage sustained in the storm, and now all domestic flights are using the international terminal instead. Here's some photos of the damage at the airport:



Gita has since moved westwards into open waters as the equivalent of a Category 4 hurricane, with winds of over 100kts, but it's now expected to head south-west across the ocean, narrowly avoiding direct hits on Vanuatu and New Caledonia – although heavy rain, strong winds and storm surge will affect these areas.

