

# Tonga – Volcanic Eruption/Tsunami

## ETC Situation Report #4

Reporting period: 1 – 7 February 2022

The ETC in the Pacific was activated in 2016 under the structure of the Pacific Humanitarian Team (PHT) to support telecommunications preparedness in the region. The ETC in the Pacific is currently supporting the response to the eruption of the Hunga-Tonga-Hunga-Ha-apai underwater volcano and subsequent tsunami which hit Tonga on 15 January 2022.

## Highlights

- Three satellite phones dispatched by WFP in Fiji have been released from the quarantine warehouse on Tongatapu and have been issued to key government figures in Tonga to facilitate the response.
- Two further consignments of equipment to provide emergency connectivity services for responders in Tonga are pending release from the quarantine warehouse on the estimated date of 8 February.
- Tonga entered its first-ever lockdown on 3 February after two cases of COVID-19 were detected in Nuku'alofa port. The lockdown is expected to impact on some aspects of the ongoing emergency response.



A communications officer from the Fiji National Disaster Management Office (NDMO) is pictured making contact with MEIDECC in Tonga from a Fijian emergency response supply vessel via satellite phone. Photo: Fiji NDMO.

## Situation overview

One of the largest eruptions of the Hunga-Tonga-Hunga-Ha-apai underwater volcano in the past 30 years occurred on 15 January 2022. The eruption generated tsunami waves rising up to 15 metres, which hit the west coasts of Tongatapu, Ha'apai, and 'Eua Islands.

The National Emergency Operations Centre (NEOC) in Tonga continues to coordinate relief efforts and collect data to assist with the next stages of response planning.

Tonga entered its first-ever lockdown on 3 February after two cases of COVID-19 were detected in Nuku'alofa port. The lockdown is expected to impact on some aspects of the ongoing emergency response. Tonga had recorded only one previous case of the virus.

## Communications in Tonga

Shipping data indicates that CS Reliance—the ship dispatched to repair the severed undersea communications cable in Tonga—has been located off the coast of Tonga's main island since early February as it assesses the damage inflicted on the cable. Repairs to both the international and

domestic communications cable are expected to take longer than originally anticipated. The Reliance has a capacity to carry over 5,000 metric tonnes of cable to replace damaged sections.

Until the undersea communications cable is repaired, national service providers—Digicel and the Tonga Communications Corporation (TCC)—are only able to partially restore its services with the use of back-up satellite communications. Limited international and domestic communications are being provided by the two service providers, including voice calls, data, and SMS.

## ETC Activities

### Coordination

The ETC is supporting the response by addressing gaps in communications services for responders. Key priorities are to enhance voice and data connectivity services for international communications, and to support communications with the outer islands of Tonga until national providers fully recover their services. The emergency telecommunications response is led by the ETC in the Pacific and the national ETC lead in Tonga—the Tongan Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC).

All international humanitarian relief items—including communications equipment—must undergo a 72-hour quarantine period in the government relief supply warehouse on Tongatapu as part of a contactless drop-off and release system, before being distributed in Tonga. This is in line with the COVID-19 protocols put in place by the government of Tonga to prevent the spread of the virus in the already disaster-stricken island nation.

### Communications equipment & services

Three satellite phones dispatched by WFP in Fiji (each to be credited with free airtime by Iridium) were released from the quarantine warehouse on Tongatapu on 4 February. The satellite phones have been activated and issued to key stakeholders in the Tongan government, including the Prime Minister, the deputy Prime Minister, and the head of MEIDECC to facilitate critical information sharing and coordination of the response.

Three portable BGAN terminals for connectivity, pre-loaded with data provided by Télécoms Sans Frontières (TSF), are expected to be released from the quarantine warehouse on 8 February. One BGAN terminal is committed to be deployed for humanitarian coordination purposes by staff in the UN Resident Coordinator's Office (RCO) in Nuku'alofa while the two remaining terminals will support operations identified by the National Emergency Management Office (NEMO) on the ground.

Pre-configured VSAT connectivity equipment deployed by the University of the South Pacific (USP) and the ETC is also expected to be released from quarantine on 8 February. When released, the satellite equipment will be set up in the USP campus in Nuku'alofa to provide a common communications area for responders on the ground to communicate internationally.

Six satellite phones and three SIM cards (to equip the three WFP satellite phones already in Tonga) credited with pre-paid airtime by Iridium have been shipped by the International Telecommunication Union (ITU) from Geneva, Switzerland. The shipment is now in transit to Brisbane for onward transport to Tonga. The equipment will be sent to Tonga on the next available flight coordinated by Australia's Department for Foreign Affairs and Trade (DFAT).

Two Government of Luxembourg 'flyaway' VSAT kits are scheduled to deploy from the WFP warehouse in the UAE to Tonga via the landing stage in Brisbane on 18 February. When received, the kits will provide connectivity services to support the response for an initial three months. Two planning

sessions on where the VSAT kits will be deployed within Tonga will be held with MEIDECC on 10 and 16 February.

Intelsat and the ITU regional office in the Pacific have collaborated with Wantok, Spark, and MEIDECC to operationalize a KU-band satellite connectivity terminal in Fua'amotu International Airport to provide data connectivity services to the Tonga Meteorological Services. The connectivity equipment was prepositioned in Tonga as part of a previous ITU project. Currently, the services are only available to the Tonga Meteorological Services.

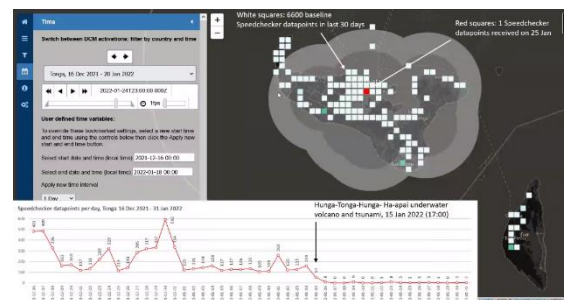
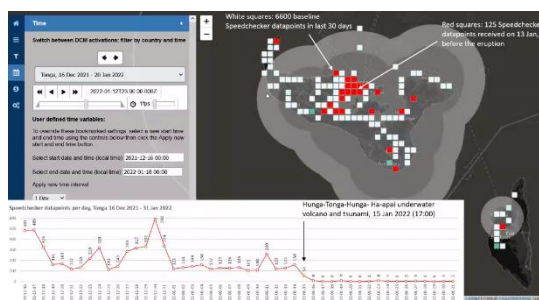
NEMO in Tonga has requested support to set up a HF radio network in six locations to enable more effective communications with the outer islands, which are not currently covered by mobile communication networks. The ETC in the Pacific is liaising with WFP FITTEST to source the required equipment and resources. To plan for the HF network, the ETC will draw from an ICT Capacity Assessment (ICA) conducted in Tonga in 2016, as well as from a new (remote) assessment to identify specific needs resulting from the volcano eruption and subsequent tsunami.

USAID's Bureau for Humanitarian Assistance (BHA) is sending seven 'Chatty Beetle' units<sup>1</sup> to assist the Tonga Meteorological Service to re-establish the early warning system with the outer islands. The units are enroute to Brisbane and will be transported to Tonga via a flight organized by the Australian Defence Force (ADF).

## Mapping

Through its [Disaster Connectivity Map \(DCM\)](#), ITU continues to map the status of connectivity in Tonga. There has been no significant change observed over the past seven days, indicating no significant recovery of connectivity services. Almost all data points (shown in red) are found on the main island of Tongatapu.

The two maps below show the difference in data points (in red, indicating presence of connectivity) before and after the eruption on 15 January. Before the eruption, an average of 150 data points were captured per day compared with just one or two data points after the eruption. The [RIPE Atlas probe](#) based in the University of the USP campus in Nuku'alofa has remained offline since the eruption.



## Information

The ETC Dashboard on the response in Tonga can be seen [here](#).

<sup>1</sup> Chatty Beetle is a portable Iridium satellite terminal that permits text-based alerts and messaging in remote locations, where communication options are limited.

The Asian Development Bank (ADB) in Nuku'alofa continues to offer access to internet capacity for humanitarian on the ground, via its back-up VSAT satellite connectivity services. Those interested can contact [Pacific.ETC@wfp.org](mailto:Pacific.ETC@wfp.org) to link up with ADB.

## Challenges

Several logistics challenges are impacting on the timely shipment of equipment to Tonga, including disruptions in global supply chains, issues with import levies, and the availability of flights for cargo. The ETC is liaising with the Logistics Cluster to alleviate some of these issues.

The COVID-19 lockdown enforced in Tonga on 3 February is impacting on the availability of focal points in the response. However, the lockdown has not caused an increase to the 72-hour quarantine period required for all communications equipment.

## Funding

The ETC and partners are using existing communications equipment in stock and in-kind contributions from partners to support the response in Tonga.

## Meetings

A Global ETC Joint teleconference will take place on **Wednesday 9 February 2022** at **06:00 UTC**.

## Contacts

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All information related to the ETC response in Tonga can be found on the website:

[www.etcluster.org/emergency/tonga-volcanic-eruptionsunani](http://www.etcluster.org/emergency/tonga-volcanic-eruptionsunani)

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