

Tonga – Volcanic Eruption/Tsunami

ETC Situation Report #6

Reporting period: 17–23 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

- As of 22 February, 90 percent of data, SMS, and voice services on Tongatapu have been restored, following repair work successfully carried out on the undersea communications cable in Tonga, which was damaged during the volcanic eruption on 15 January.
- However, communication with the outer island groups of Ha'apai and Vava'u remains a challenge as the domestic cable—also damaged during the volcanic eruption—has not yet been repaired. The domestic cable repairs may take up to 6-9 months, depending on the extent of the damage.
- The ETC in the Pacific is liaising with the Tongan authorities to re-assess emergency telecommunications needs in Tonga, as part of the response.



NEMO officer in Vava'u was equipped with an Iridium satellite phone deployed by WFP in Fiji.
Photo: Feleti Tu'ihalamaka/Tonga MEIDECC

Situation overview

The Hunga-Tonga-Hunga-Ha'apai undersea volcano in Tonga erupted on 15 January in a blast that was felt across the entire Pacific region. The eruption caused severe disruption to communications in and from Tonga, as the undersea fibre communications cable connecting Tonga to the world and its own islands was severed in two locations.

The Government of Tonga declared a state of emergency on 16 January. The government continues to conduct damage assessments and coordinate relief items to the outer islands of Tonga.

As of 21 February, there have been over 200 confirmed cases of COVID-19 in Tonga. The government has extended lockdown measures in Tongatapu and the Vava'u island group until 27 February. The remaining outer island groups—Ha'apai, 'Eau, and the two Niuas—are not under lockdown.

All relief items delivered in Tongatapu continue to be held in the government relief supply warehouse for 72 hours before being released, as part of the government's contactless response.

Communications in Tonga

As of 22 February, the international section of the undersea communications cable has been repaired by the CS Reliance. Data, SMS, and voice services provided by the two national providers in Tonga—Digicel and the Tonga Communications Corporation (TCC)—were almost immediately available to use by the population of Tongatapu following completion of the repairs.

However, communication with the outer islands of Tonga remains a challenge as the domestic section of cable—also damaged during the volcanic eruption—has not yet been repaired. According to a report from Tonga Cable Limited (TCL), these repairs may take up to 6-9 months due to the need for a different type of fibre cable. Therefore, communications with the outer islands of Tonga are not yet fully restored.

ETC Activities

Coordination

The ETC in the Pacific is liaising with the Tongan authorities to review emergency telecommunications needs, following the repair of the international section of the undersea communications cable which has restored data, SMS, and voice services on Tongatapu by 90 percent.

The emergency telecommunications response in Tonga is led by the national ETC lead—the Tongan Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC).

Voice services

Six Iridium satellite phones and three SIM cards dispatched by the International Telecommunication Union (ITU) are in the government quarantine facility in Tonga. The equipment is expected to be cleared and received by MEIDECC and the National Emergency Management Office (NEMO) by 24 February.

There are a total of three WFP satellite phones for voice services currently in Tonga, activated and deployed as part of the emergency response. These satellite phones have been issued to key stakeholders in the Tongan government: the Prime Minister, the deputy Prime Minister, and MEIDECC, to facilitate critical information sharing and coordination of the response.

Connectivity services

A total of three BGAN satellite terminals for connectivity have been activated and issued in Tonga to MEIDECC technical teams and the UN Resident Coordinator's Office (RCO) in Nuku'alofa. The two BGANs issued to MEIDECC are providing connectivity in a MEIDECC District Emergency Management Committee (DEMC) facility in Vava'u. All three BGAN terminals are equipped with data provided by Télécoms Sans Frontières (TSF).

The VSAT connectivity kit deployed to Tonga by the University of the South Pacific (USP) remains on the USP campus in Nuku'alofa, awaiting activation to provide a common communications area for responders to communicate internationally. The ETC in the Pacific is seeking clarification on the need for these emergency connectivity services, following the repair of the undersea communications cable.

Two Government of Luxembourg 'flyaway' VSAT satellite connectivity kits are in transit to Tonga, via Australia. When received, the kits will provide connectivity services to support the response for an initial three months. The connectivity kits could be deployed to the outer islands of Tonga, where communication is still a challenge.

The ITU regional office supporting the Pacific continues to provide data connectivity services to the Tonga Meteorological Services in Fua'amotu International Airport via a prepositioned VSAT and with partnership from Intelsat.

ITU has also set up VSAT equipment in the Tonga Geological Services (TSG) centre in Nuku'alofa. The Tongan Ministry of Communications is in the process of activating this connectivity capacity via assistance from national service providers, Intelsat, and Spark New Zealand.

Radio communications services

The ETC in the Pacific is finalizing equipment and personnel requirements with WFP FITTEST to strengthen the HF radio network across six island groups—Tongatapu, 'Eau, Ha'apai, Vava'u, Niuatoputapu and Niuafu'ou—to enable more effective communications with the outer islands. The ETC will also support the restoration of the existing government-owned VHF radio communications network, as requested by NEMO.

Other communications support

Other support provided to the government of Tonga as part of the response includes:

MEIDECC has reported that the deployment of 50 Starlink terminals for connectivity—received from SpaceX—has started. The ETC in the Pacific is discussing the deployment with the Tongan authorities, including where the terminals are being deployed and more information on the connectivity capacity provided by the terminals.

Seven 'Chatty Beetle' units¹ sent to Tonga by USAID's Bureau for Humanitarian Assistance (BHA) have been released from quarantine to assist the Tonga Meteorological Service to re-establish early warning systems with the outer islands.

As requested by Tonga Meteorological Services, UNESCO in the Pacific has shipped two satellite phones including SIM cards and external antennae to Tonga, through the Intergovernmental Oceanographic Commission (IOC) tsunami unit. The equipment arrived in Tonga on 21 February and is likely to be cleared on 24 February, following the 72-hour quarantine period.

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

Information

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

Mapping

Through its [Disaster Connectivity Map \(DCM\)](#), ITU continues to map the status of connectivity in Tonga. Captured datapoints showed the undersea communications cable coming back online on 22 February, but data on mobile connectivity has yet to be captured. After being disconnected for a total of 37 days (since the eruption), the DCM also shows that the [RIPE Atlas probe](#) based in the USP

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

campus in Tongatapu came back online on 22 February, in line with the international cable restoration. It is now fully connected.

Funding

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

On 15 February, funding of US\$250,000 was confirmed from the Central Emergency Relief Fund (CERF) to support the ETC in the response to the volcano eruption and subsequent tsunami in Tonga.

A further contribution of US\$217,000 has been received from the Government of Japan to support the ETC response.

Challenges

Logistics challenges continue to impact 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 COVID-19 lockdown enforced in Tongatapu since 3 February has impacted on the availability of ETC focal points in the response.

Meetings

A Global ETC Joint teleconference will take place on **Wednesday 2 March 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-eruptionsunami

For more information or to be added or deleted from the mailing list please contact:

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