

Tonga – Volcanic Eruption/Tsunami

ETC Situation Report #10

Reporting period: 19 May – 24 July 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 (HTHH) underwater volcano and the subsequent tsunami which hit Tonga on 15 January 2022.

Highlights

- The NORCAP technical specialist deploying under the ETC reached Fiji on 12 July, where he conducted the required preparation before onward travel to Tonga on 21 July.
- The 90-day mission aims to support local ETC coordination, operationalize the Government of Luxembourg (emergency.lu) internet connectivity solutions on the outer islands, prepare to install a HF and VHF radio network across six islands, facilitate Unmanned Aircraft Systems (UAS) coordination, and build the technical capacity of national responders.
- As the first mission priority, the ETC technical specialist will conduct site assessments in Vava'u and Ha'apai to operationalize the Government of Luxembourg (emergency.lu) satellite equipment prepositioned in Tonga.



The NORCAP technical specialist travels to Tonga for 90-day ETC mission with equipment in hand. Photo: WFP Pacific

Situation overview

The state of emergency as it relates to the event of the Hunga-Tonga-Hunga-Ha'apai undersea volcano eruption and subsequent tsunami on 15 January ended on 5 June and the country has moved to the recovery phase. The World Bank approved US\$19.5 million in additional funding for disaster recovery and resilience projects in Tonga, including work to strengthen early warning systems¹.

A set of baseline restrictions continue to be implemented to restrict the spread of COVID-19, including overnight curfews on some islands. Travel to Tonga is only possible via specially arranged repatriation flights, although these restrictions will be lifted from 1 August.

¹ <https://reliefweb.int/report/tonqa/us19-million-safer-schools-and-improved-emergency-early-warning-systems-tonqa>

Communications in Tonga

International communications have been restored in Tongatapu since 22 February when the **international section** of undersea communications fibre cable—severed during the eruption—was repaired. Services of the two national providers in Tonga—Digicel and the Tonga Communications Corporation (TCC)—are available to use.

The manufacturing of the cable to replace the damaged **domestic section** of undersea fibre optic cable severed during the volcanic eruption has been completed. The 100-110 kilometres cable is being transported to Tonga to facilitate the repairs by an estimated date in late September.

Until the cable is repaired, access to communications for responders and affected communities on the outer islands remains severely limited.

ETC Activities

Coordination

The ETC in the Pacific continues to work closely with the Tongan Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) and the National Emergency Management Office (NEMO) for the emergency telecommunications response in Tonga.

The NORCAP technical specialist deploying under the ETC ('ETC technical specialist') reached Fiji on 12 July, where he conducted the required preparation before onward travel to Tonga on 21 July. The 90-day mission aims to support local ETC coordination, operationalize the emergency.lu VSAT connectivity solutions on the outer islands, prepare to install a HF and VHF radio network across six islands, facilitate Unmanned Aircraft Systems (UAS) coordination, and strengthen the capacity of national responders on the ground.

When travelling to Tonga, the ETC technical specialist transported over 100 kilograms of required communications equipment on the direct repatriation flight from Fiji to Tonga.

Data connectivity

Two rapid VSAT electronic kits from the Government of Luxembourg were tested and prepared in Fiji before being transported to Tonga by the ETC technical specialist.

The ETC in the Pacific, the ETC technical specialist, and the Government of Luxembourg held a session on 19 July to familiarize personnel with the electronic kits and to go through the specifics of site preparation to ensure successful installation and activation of the two emergency.lu VSAT connectivity solutions, already prepositioned on Tongatapu.

As a first mission priority, the VSATs will be transported from Tongatapu and set up in the MEIDECC Emergency Operations Centres (EOCs) in Vava'u and Ha'apai, following site assessments.

Radio communications & telephony

Site assessments to plan for the deployment of HF and VHF radio communications systems will commence, now that the ETC technical specialist is on the ground in Tonga. The ETC is planning to set up the systems across six island locations – Tongatapu, 'Eua, Ha'apai, Vava'u, Niuatoputapu, and Niuafu'ou. The VHF coastal radio network will be augmented while a new, more resilient HF radio network will be established.

The required HF radio equipment solution was developed with support from WFP FITTEST in the UAE and will be shipped directly to Tonga from the supplier in Australia. The ETC in the Pacific is working on the delivery of training modules to accompany the HF solution.

The required VHF equipment is being sourced from WFP FITTEST while additional tools and supporting equipment is being procured from a supplier in New Zealand.

The ETC in the Pacific is procuring nine laptops and one tablet device to equip MEIDECC technical and operational teams with the tools to monitor, manage, and maintain the operational status of the HF and VHF radio networks, as well as serve as tools for improved information management in MEIDECC's department of communications.

A second follow-up mission may be needed to carry out the installations.

The ETC is liaising with Airlift Airways, which has successfully installed HF radio systems in Niuafu'ou and planning for the same on Niuatoputapu, to ensure there is no duplication of efforts.

Unmanned Aircraft System (UAS)

The ETC technical specialist prepared and transported two Unmanned Aircraft Systems (UAS) to Tonga. The ETC in the Pacific is working with Aviassist—a drone training organization based in Australia—to plan for the delivery of training to responders in Tonga. The courses in civil aviation are recognized throughout the Pacific. Tonga's MEIDECC has identified several potential candidates to undertake the course. These skills will be used to conduct damage assessments during aerial surveys.

As a prerequisite for the Aviassist training, a certified drone operator from WFP in the Pacific will provide a remote foundational UAS technical briefing to the selected MEIDECC candidates in Tonga to provide familiarization with the UAS units, which are accompanied by set-up flight control simulation software.

Additional Information

The International Telecommunication Union (ITU) is mapping the status of connectivity in Tonga via the [Disaster Connectivity Map \(DCM\)](#).

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 response.

Challenges

Logistics challenges continue to impact the timely shipment of equipment to Tonga, including disruptions in global supply chains, issues with import levies, and the availability of flights for cargo.

COVID-19 continues to impact the movement of equipment and personnel to Tonga.

Meetings

A Global ETC Joint teleconference will take place on **Wednesday 24 August 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

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