

## AREC Volunteers Respond to Cyclone Gabrielle – Press Release

### **Press Release begins:**

The New Zealand Amateur Radio Emergency Communications (AREC) kick into gear to respond to Cyclone Gabrielle.

Around New Zealand AREC volunteer members and other license Radio Amateurs geared up as Cyclone Gabrielle approach the coastline. Cyclone Gabrielle was expected to bring extreme winds and rainfall across the Auckland commencing Sunday 12 February. Winds in excess of 120 km/h to 130km/h are forecast with speeds up to or exceeding 150km/h in some areas. These wind speeds have the potential to cause damage to power and telecommunications infrastructure. Heavy prolonged rainfall we predicted to cause serious flooding across large parts of the North Island East Coast.

### **Auckland – Andrew Brill ZL1COP**

After meetings with Auckland Emergency Management (AEM), AREC was asked to provide radio communication support across the entire Auckland Region for field teams comprising of a mix of NZ Response Teams, NZ Defence force personnel, and other volunteers.

AREC developed a detailed communication plan and personnel rosters to assist with the operation.

Radio Comms planned for the disastrous event consisted of of:

- AEM VHF network – 8 x channels (ESB Band) for CD coordination
- Commercial – 2x channels (1x EE band, 1x CN band)
- Amateur – 3x repeater channels (Auckland 670 2m repeater, Kohukohunui 875 STSP, ZL1BQ ZK DMR) for coordination and liaison between AREC members. (Due to an outage of an AEM repeater a crossband repeater using 70cm uplink from the comms base with an ESB band simplex downlink provided to the operational area).

Fourteen Civil Defence centres were established throughout the Auckland region and AREC maintained VHF contact with these centres; including local community response groups in the Rodney District and Waiheke Island together with various AEM and NZ Response Team resources.

AREC was based at the North Shore CDEM base (400 East Coast Road Sunnynook) and provided the link between the field teams throughout Auckland and the Incident Management Team located at the Auckland Emergency Coordination Centre in the Auckland CBD; reporting, and general situation reporting for the duration of the emergency.

AREC volunteers roles who assisted with the following activities consisted of:

- Communicators - talking on the radio
- Log keepers - recording messages, forwarding messages via email, data entry etc.
- People with SARTrack software experience



*Figure 1 Alistair ZL1NEO operating at North Shore Comms Base*

- People with computer skills including Excel, Microsoft Office, Email etc (AEM will be using these systems)
- Supporters/gophers - Handling phone calls, logistics, making coffee etc.

AREC operations and preparation were activated on Wednesday, 8<sup>th</sup> of February, where actions commenced on Sunday, the 12<sup>th</sup> of February, and continued through to Thursday, the 16<sup>th</sup> of February.

During this time, 18 amateurs supported the operation at the base. A total of 25 people on standby throughout the Auckland region to provide remote support if needed. A total of 337 Person/Hours were worked.

Our team identified additional radios were needed. AREC member Soren Low ZL1SKL sourced 60 VHF radios. He, along with Jim Smith ZL1TGS, spent 8 hours programming these radios onto CDEM channels, then loaning them to AEM.

A team on Waiheke Island led by Joe Bell ZL1PMY, were able to issue hand-held radios to the island communities and provide VHF coverage using their private commercial repeater, to maintain contact 24 hours a day for the duration of the operation.

Without this support Evacuation centres around Auckland would not have had any backup communications.



Figure 2 VHF Handheld radios loaned by AREC awaiting deployment to evacuation centres.

During the afternoon of Tuesday 14 February, we were requested to provide a portable



repeater to provide on scene comms between rescue workers operating at Muriwai in the search for the missing volunteer fireman, as cell coverage was down.

The ESB164 Inter agency liaison repeater was deployed by the North Shore Response team NZRT5. AREC conducted a coverage analysis to locate a suitable site to provide good coverage of the scene and also direct comms to the Sunnynook Base.

AREC volunteers also provided and programmed equipment to allow comms with Welfare teams who were operating rented UHF portable radios on a commercial repeater channel on the Auckland Skytower.

AREC was stood down at midday on Thursday 16 February with a few remaining on standby if needed.

The majority of communications handled up by our volunteers was routine SITREPS with no major issues, however the operation has confirmed the value of

Figure 3 Peter ZL2AK at manning radios at Napier Coastguard IMT

AREC and radio comms in disaster situations, and has underlined the need for comms knowledge and skills in the event of infrastructure failures.

SARTrack is proving to be a valuable tool for logging radio traffic, and our improvised link to ECC is working, as long as we retain internet connectivity.

Auckland ECC operations manager Josie Beswick passes on her thanks and congratulations for the outstanding service provided by AREC volunteers, and that is echoed by feedback from the Community groups and Civil Defence evacuation centres around the region, who were kept in touch when the power and phones were down and things looked gloomy.

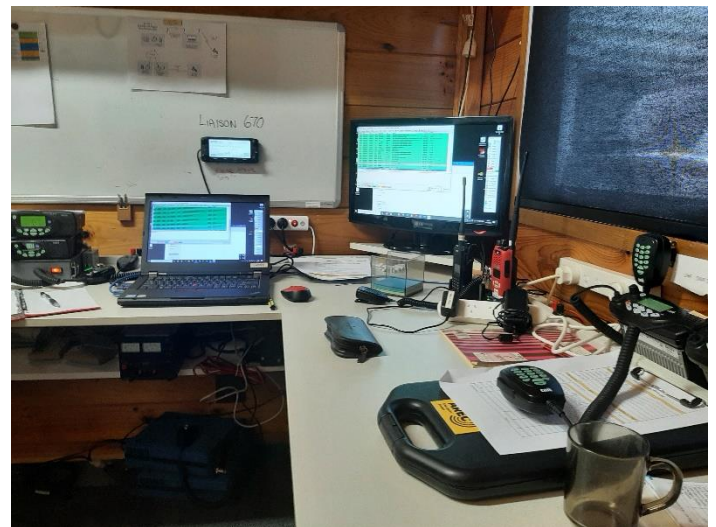


Figure 4 Main Operating area North Shore Comms Base

## Hawkes Bay – John Newson ZL2VAF

AREC and Civil Defence (CD) activated the ECC in Hastings which covers the wider Napier, Hastings area and up through Wairoa, testing the CD radio network up the east coast and set up ready for Cyclone Gabrielle bearing down on them.

The severity of the cyclone caused significant damage including power outages, with the main high voltage substation flooded that fed the wider area.

The rivers rose so high that the bridges between Napier and Hastings became unpassable. This meant a number of AREC/CD communications volunteers were cut off and unable to attend to ECC.

In the first 48 hours, only 3 members continued to support the comms in 12 hour shifts with very little sleep. A mammoth effort by these three.

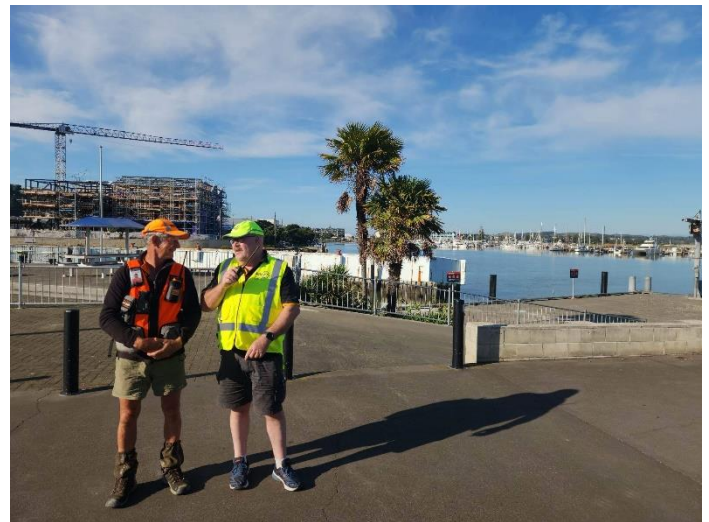


Figure 5 Gerry ZL2XL providing comms support for LandSAR searching beaches

Most of the radio network stayed on the air other than an occasional outage due to power or internet outages which were rectified within a few hours. More details will be forthcoming as the teams recover.

## Te Tairāwhiti – Gisborne Region – Mike Mather ZL2CC

Tairāwhiti was hit really hard, with all communication going out for a lengthy period. Long before the last cyclone hit the North Island, a small group of radio amateurs (hams) set up emergency communications via “HF” radio to enable the passing of messages from Gisborne area to the outside world.

The hams in Gisborne area were Roger (ZL2RC), Tom (ZL2MOT) and Mike (ZL2CC) and the “out of town” station was Barry (ZL2BJA) in Palmerston North.

As soon as Cyclone Gabrielle hit over the night of Monday the 13<sup>th</sup> and 14<sup>th</sup> morning, the “net” (as they are called) sprung into action. They kept regular contact with Barry ZL2BJA for days and passed on several personal messages via the radio where Barry sent them off as emails to the various people who had requested such information.

As Mike ZL2CC is located in Te Karaka (where some of the worst flooding was and about 80% of the houses had water through them), many messages were sent from the local township, along with reports of damage road conditions etc. as it became known.



Figure 6 Gerry ZL2XL continuing Comms support for beach searches.

It wasn't long before poor Barry ZL2BJA was inundated with requests, as other hams from all over the country were asking him for information about family and friends in the Gisborne and Hawkes Bay areas. Luckily, he was joined by other licenced amateur radio operators

listening in and helping send emails etc, and in some cases actually visiting houses to perform welfare checks on their behalf.

Our team used HF radio and it was just as well as the internet was down, power was out and the cell phones dead. The local VHF and UHF repeaters are set up to be used into Bay of Plenty and Hawkes Bay which were hit hard and had their own communications problems as well.

Barry ZL2BJA and others did an excellent job and I know it would have been hard work taking messages and information, passing it on usually by email, and sometimes by any means possible. This is what the amateur radio community are trained to do, and always be ready to help out in an emergency such as this.

You may think we are geeks, but we can be useful and helpful geeks.

### **Bay of Plenty**

Similar to Gisborne information is yet to come of Amateurs involvement.

### **Wellington**

At the request of NEMA a large number of AREC members were placed on standby ready to travel to Hawkes Bay and Gisborne if required. They were stood down as communications were slowly re-established.

There are many more stories of the heroic efforts by AREC members and licensed Amateur radio operators and the details will come out in due course. My thanks go to all involved for providing this excellent service to the communities impacted by the cyclone.

### **Statement ends**

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