

# THE WORLD BELOW

## 400 GHz

The Periodical Newsletter of the  
WAIKATO VHF GROUP Inc.,  
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NZART  
BRANCH 81

[www.zl1is.info](http://www.zl1is.info)

### June 2011 Issue

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Committee	Neill Ellis	ZL1TAJ	07 576 7876
Committee	Kevin Murphy	ZL1UJG	07 847 0041
Editor	Kevin Murphy	ZL1UJG	07 847 0041

#### General Meeting June 2011

A General Meeting of the Waikato VHF Group will be held on  
Sunday, 12th June, 2011 at 1:30pm.

The venue will be the Branch 12 Clubrooms, 88 Seddon Rd, Hamilton.

The meeting will consist of 3 topics:-

Feedback/report from NZART Conference

Update on Waikato BOP 2m Repeater Network

Discussion, lead by Alan Wallace on various ways of having meetings via  
SKYPE video type technology. Please bring your thoughts and ideas to the meeting  
to add to the discussion. Any ideas on meeting topics are also welcome.

**Non members and visitors welcome.**

## **TE AROHA 2m COVERAGE REPLACEMENT STAGE 1 COMPLETED**

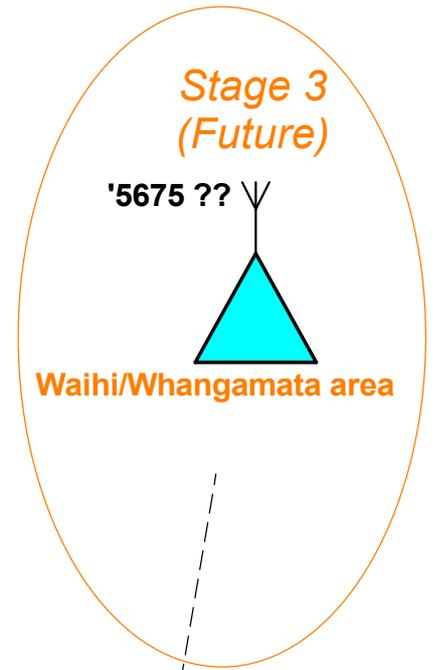
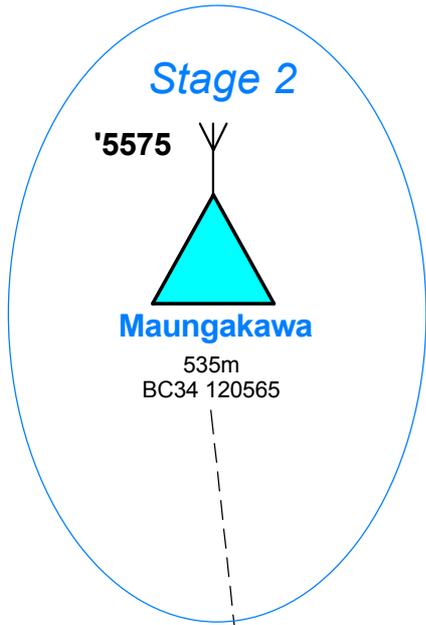
On 24 May 2011 at 1300hrs, Te Aroha '695 was turned off permanently, ending 37 years of 2-metre repeater service from Mount Te Aroha. Shortly after, our new '695 repeater at Te Weraiti was brought into operation, with temporary IRLP access added the following night.

Modifications to the 'repeater linking matrix' ex Te Aroha are presently being carried out, and this will be installed at Te Uku following Queens Birthday weekend, at which point Raglan '5675 will be linked to Te Weraiti '695 and IRLP provided across both repeaters.

Some expected changes in coverage result from having repeater coverage now coming from two different sites 82km apart. Because no other single site comes close to Mt Te Aroha's overall coverage, your committee and repeater trustees are establishing replacement coverage which will eventually become more extensive than Te Aroha offered. Linking these first two repeaters completes Stage 1 of that planned network shown at [http://www.zl1is.info/WVHFG-NW4\\_basic%202m%20network.pdf](http://www.zl1is.info/WVHFG-NW4_basic%202m%20network.pdf)

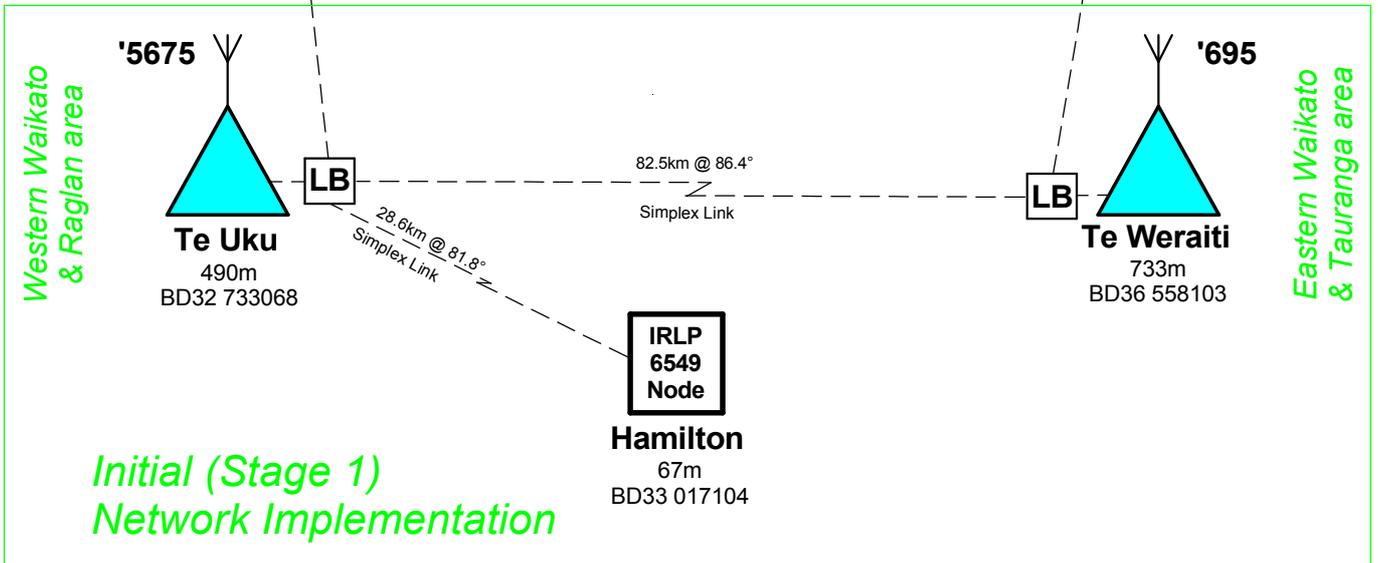
Although Te Weraiti is accessible from Hamilton (over a 56km non line of sight path), Raglan '5675 (29km west) now offers better access to this new repeater network from most of Hamilton. Even though the antennas we share at Te Uku provide nearly 10dB less gain than the dedicated array we enjoyed at Te Aroha, '5675 is accessible from Taranaki through to parts of Auckland. West of the Kaimai Range, Te Weraiti (with similar antenna gain to what Te Aroha had, but a primarily east-west pattern) covers from Te Aroha and Morrinsville south, and while access from areas around Waihi isn't as good as it was to Mount Te Aroha, Tauranga and Mt Maunganui get generally better overall coverage. Coverage extending north of Te Aroha to include Paeroa and Thames (plus Huntly to Pokeno, and right up the Coromandel western coast to Wilson Bay well beyond Te Aroha's reach) will come with commissioning of a '5575 repeater at Maungakawa planned for later this year. Further extensions of this network are under consideration, to proceed as finances and site access permit. In the meantime, enjoy this new repeater service, and join our Sunday night net to tell us how its going.

The VHF Group recognises contributions of time and effort to establish this network from ZL1TAT, ZL1THG, ZL1TAJ, ZL1GWP, ZL1PK, ZL1RWR, and ZL1AMW, plus ZL1KM for sponsorship of eight of the radio licences.



63km @ 36°  
Simplex Link

56.9km @ 359°  
Simplex Link



Commissioning dates:  
 Te Uku '5675 - 24 April 2010  
 Planned:  
 Te Weraiti '695 - end of May 2011 (when Te Aroha '695 goes off)  
 Link Te Uku and TeWeraiti - June 2011  
 Maungakawa '5575 - late 2011

**LB** = Linking control Bridge  
 permits any individual repeater  
 to be isolated from backbone  
 by remote control.

## **General**

### National System Extension into Eastern Coromandel Peninsular

Mercury Bay Branch 85 has been re-formed (April 2011), and work is well advanced to extend the National System into their area from a site near the end of the Opito Bay peninsular. This new repeater is expected to become operational in July this year, transmitting on 434.800 MHz and receiving on 439.800 MHz, linked from Mt Edgecumbe 9975, 173km away.

The Waikato VHF Group has assisted Branch 85 through the planning phase for their project.

### Repeater Sponsorship

Thanks to the generosity of Kiely (ZL1KM) all the Groups voice repeater licenses have now been sponsored (<http://www.zl1is.info/sites.html>). The sponsorship of three beacons and the digipeater are still outstanding, so if you can assist please contact - [branch.81@nzart.org.nz](mailto:branch.81@nzart.org.nz)

### Fundraising and Donations.

The scribe was able to raise \$90 dollars for Group funds at the recent REG Market day in Hamilton. I hope to be also at the Hamilton Amateur Radio Club Market Day later on this year.

With the increased costs of the new Network, as detailed in the rest of this newsletter, fundraising and donations are very important in developing the network , and also keeping it operational (license fees).

There are also costs in operating the several beacons the Group has.

The coverage of these repeaters and beacons exceeds the local area of its general membership and many other clubs and individuals enjoy the benefits of these facilities.

The club does not have a large membership like some other groups, but covers a wide area geographically and any assistance by either joining up new members from both inside the Waikato, and outside the area, or by donations is gratefully received.

<http://www.zl1is.info/join.html>

The members of the committee wish to thank those who have been very generous, either financially, with equipment or with their time.

### Auckland VHF Group Spectrum

April Spectrum now available from : [www.qsl.net/zl1bq/specap11.pdf](http://www.qsl.net/zl1bq/specap11.pdf)

Inside:

Making Combiners for 144, 432 and 1296

Feb 2011 DX Weekend Results

DTMF Encoder

VHF Convention Wellington details

May Spectrum now available from : <http://www.qsl.net/zl1bq/specmay2011.pdf>

Inside:

Technology Conference coming to Auckland

Report on VHF Convention 2011

Neville Copeland ZL2AKV SK - 22 April 2011

10 GHz (3 cm band) Transverter Project

Coaxial connectors available from the Trading Table