

THE WORLD BELOW 400 GHz

The Periodical Newsletter of the
WAIKATO VHF GROUP Inc.,
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WAIKATO VHF GROUP EXECUTIVE

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September General Meeting 2007

The next General Meeting of the Waikato VHF Group, will be on Sunday, 9th September, 2007, at 1.30pm, in the St. Stephens Presbyterian Church Hall, cnr. Ohaupo Rd. & Mahoe Str. Hamilton. The speaker will be Murray Greenman, who will be talking on "GPS Disciplined References".

[Read more about Murray's talk on the next page.](#)

Some details from Murray on his talk:-

"The business of generating very precise radio frequencies requires techniques, which until recently, have been outside the capabilities of Radio Amateurs. Now, using a combination of timing derived from the GPS satellite service, high quality oscillators and some smart digital and analog circuitry, very good references are available.

The presentation covers the fundamentals of frequency accuracy, stability and drift, types of oscillators and techniques for control. It then discusses how a phase locked loop operates and the special techniques required to lock a reference to a 1Hz reference containing considerable jitter, and yet yield performance better than one part in a billion (1Hz at 1GHz!).

Several GPS disciplined references, simple and complex, homebrew and commercial will be on show, with live demonstration of their performance."

To find out more, come to the meeting!

"Te Aroha 695 IRLP Node"

As you are aware the aging Kenwood TR3200 linking equipment between Mt Te Aroha and Alan Wallace's residence, has been replaced with Icom F210S transceivers. See picture below. The computer controlling the node has also had a larger hard drive installed and new software installed. We have experienced one or two teething problems to date, but these are being investigated and fixed as they become apparent.

The picture below shows the 840 UHF and 695 VHF repeaters in the lower rack. In the upper green panel (to the left) is the 'Repeater Linking Matrix', which allows 840, 695 and the UHF link to be connected together, in various combinations. The radio equipment on the right, is the new Icom F210S transceiver.



"Kaimai Site Building"

At the last committee meeting it was decided that we should ask a qualified builder to go to the site, and prepare a quote to do the work. If you know a friendly builder, please get in touch with President Noel. Once we have an idea of the cost, fundraising will be required.

"Kaimai Site Equipment"

In late June, the Ministry of Economic Development (RSM) conducted an 'audit' of the equipment on site. The primary purpose of the audit was to ensure license conditions were being met, i.e. transmitter power, frequency, emission, antenna type and polarization. Verify location data, i.e. site name and geographical location, and identify any unlicensed operation. The Group can report that the MED had no concerns regarding their audit findings.

"From the Archives"

Some snippets from "The World Below 400GHz" for August 1987 - 20 years ago, how time flies. The Editor at this time was Kevin Smith - ZL1BC.

Subs - individual \$10.00
Family \$14.00

What you MUST NOT miss ---

**** AUGUST 16TH WAIKATO VHF GROUP MEETING AT THE KARAPIRO DAM**

TAIRUA REPEATER

This has now been shifted to the new building and tower on the same site. It had to be taken off the air for the removal but there should be no significant changes to the usual coverage as everything is almost the same. If there are noticeable changes the Group would be interested in some details!

"Repeater, Link & Beacon Fees"

The committee has agreed to pay all licenses for this year, but will be conducting a review of all our repeaters, links & beacons, to make sure all are being used. Any comments on this matter appreciated. If you have a spare dollar or two in your back pocket, any contribution towards the cost of our repeater licenses would be a great help. Any contributions can be sent to the "Repeater Fees", Waikato VHF Group, PO Box 606, Waikato Mail Centre, Hamilton 3240. I would like to take this opportunity to thank one of our members, for paying the license fee for one of our repeaters.

"New Ham Radio Info Bar for your browser"



Check out this new toolbar for Internet Explorer and Firefox by John GODPC. This tool bar will help you get the latest up to date DX news, articles, cluster spots, propagation predictions, as well as quick access to ITU, Zone and several other maps. Available from:- www.haminfo.com

"Some Amateur Humour"

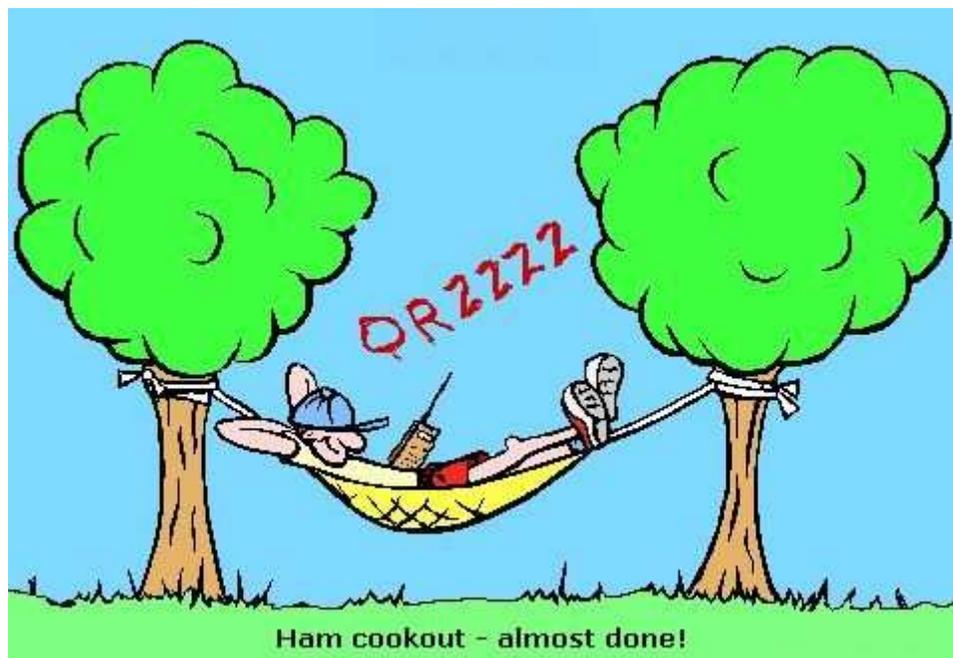
Bandwidth - a ham's waist size.

An elderly ham driver was going down the motorway, south of Auckland, when suddenly his 2 meter radio crackled his call...Answering...he heard a fellow ham's urgent warning....."Hey George, just heard on the news that there's a car going down the motorway, the wrong way, please be careful"!! George replied, "Well I'll declare, it's not just one.....there's hundreds of them"!!!!!!

Ham weight loss programme - automatic gain control.

Who is the most dangerous person in the world? A ham with an idea, some wire and a bow and arrow in his hand.

An old, old ham was lying in his deathbed upstairs. His most favorite food in the world was chocolate chippies. As he lay there, gasping for each breath, he was sure he could smell freshly baked chocolate chippies. He crawled out of bed and slowly limped down the stairs. Sure enough, across the kitchen, there was a huge plate of chocolate chippies on the table. He finally made it to the table and he reached a shaking hand towards the biscuits. Suddenly, his XYL slapped his hand sharply and yelled, "DON'T TOUCH THOSE - they're for the funeral!"



"This Newsletter"

The newsletter this month has been produced by your secretary, due to Kevin being committed to getting the "VHF Scene" page out in time for the "Break-In" deadline.