QST63

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Branch 63 Clubrooms
Park Street, Upper Hutt

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Newsletter of The New Zealand Association of Radio Transmitters, Upper Hutt Branch 63, Inc.

May 2013

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Presidents Report

This newsletter is later than usual this month as the clubs AGM was held on the last Friday of April.

I wish to extend my thanks to all officers service over the last year, and to those that again have offered up their time for the next twelve months plus other members who have taken on new roles for the next twelve months.

We now have the new officers list (later in Newsletter).

As we go into the winter season many activities will cease, as we have to weather the colder months, but there will be activity such as the Lighthouse Weekend in August and other such contests.

Remember to keep both Gavin and I up to date with your email addresses if they change, or if you have not been receiving any emails from me.

The club subscription has been set this year at $25.00 for the 2013-2014 year. Payment can be made direct credit into the Branches bank account (Westpac 03-0774-0897536-00). If you can all pay over the next month or so that would be appreciated.

Finally as I will be attending the NZART Conference over Queens Birthday weekend in Masterton in June, please advise if you require any questions asked from the floor of the AGM. As the AGM is close to us here in Upper Hutt please make the effort to attend the AGM if nothing else to support the members of Branch 46 as they did for us in 2011 for the Upper Hutt Conference.

Well that's the news from me...

73's and good DX....

Mark ZL2UFI

Amateur Radio Equipment Sale and Social Get Together
Saturday 18 May 2013

Doors open at 08:00 am for sellers
Tables @$5.00 per table for sellers

Doors open to buyers from 09:30 am.
Displays are welcome – no charge

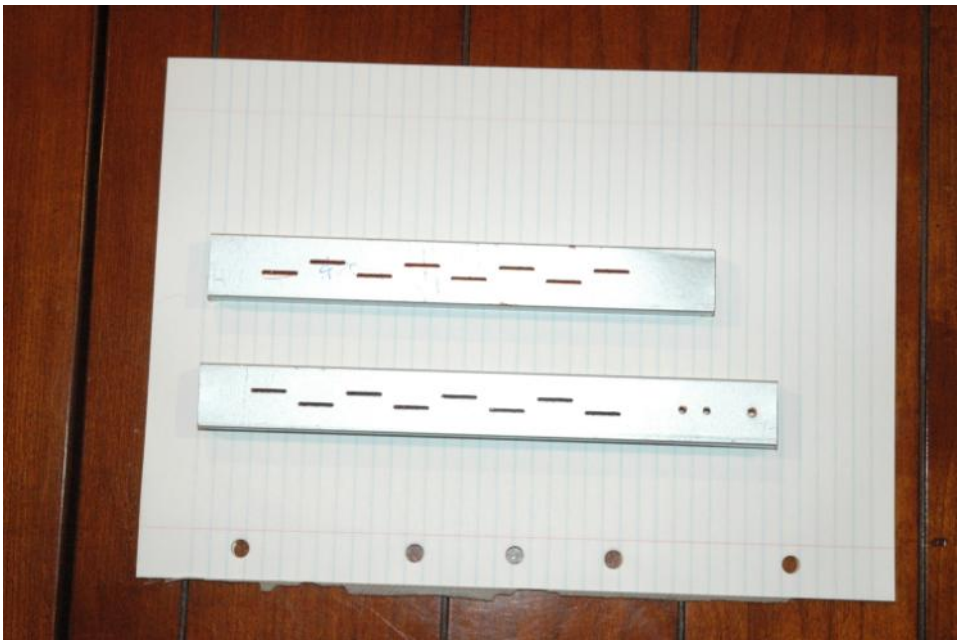
Wellington Power Boat Club, Onepoto Road, Titahi Bay (Porirua Harbour)

Branch 63 Repeater Update

Beacons
3cm
Antenna
Two versions of the waveguide Antenna have been manufactured. One has is designed for a internal SMA feed with two matching screws, the other is designed for flange mounting to a external Coaxial feed.

A slotted waveguide antenna works by radiating energy from the inside though a number of slots cut in the waveguide. Each slot acts as a (slotted) dipole, with the polarity opposite the direction of the slot. A vertical slot gives a horizontal polarisation.
With many slots in a waveguide the antenna works like a stacked array of dipoles. More slots means more gain. And with slots on both sides the radiation pattern becomes (reasonably) omnidirectional.
The Design shown have a gain of approx 10dbi.

Many thanks to Malcolm ZL2UDF for facilitating the work.



10m

Nothing to report.

Repeaters

1292 23cm
Nothing to report.

860,5425 Dstar
The Transmit time-out for both repeaters has been extended to nine minutes. This is a attempt to determine if the occasional RF lockout is related to the time-out period.

730 2m FM Repeater
A Working Bee is planned for the Anzac weekend to install the new 730 and 5425 antenna stacks. Weather permitting.

6m FM Repeater
Nothing to report.

Simon, ZL2BRG.
Repeater Trustee.

Branch 63 2012-13 Repeater Trustee's Report

The past year has seen at least 16 separate trips to Climie continuing work on the maintenance and upgrade of the clubs infrastructure. At the beginning of the year a major upgrade of 730 and 5425,860 Antenna's was set in motion with the completion hopefully in the next weekend or two. These upgrades should leave the regions premier repeaters in good shape for a good number of years to come.

Beacons

3cm
The 3cm Beacons construction was brought back in house, with the majority of the major components now sourced. We are looking for a spring/summer installation on Climie.

6M
The 6m Beacon was decommissioned and replaced by the 53.950 FM repeater in December 2012.

10M
The 10M Beacon Continues to perform without issue.

Repeaters
23cm FM
1292 temporary antenna due to be replaced with a higher performance version within the coming month courtesy of John ZL2TWS.

860 DStar
860's coaxial collinear was replaced by a commercially made four dipole stack and is performing excellently.

5425 Dstar
A upcoming working bee will install a refurbished 4 dipole stack for use on 5425.

730 FM
730 is also getting the upgrade treatment with a commercially made four dipole stack along with new pole in a upcoming working bee.

6M FM
The 53.950 repeater was installed at the end of 2012. Recently a second identical GE repeater unit was sourced from the states and will be refurbished with the intention of swapping with the existing unit. Also under consideration is replacing the current Antenna with half wave dipole which should improve repeater converge and thus increase usage.

Conclusion
The ham radio community in the greater Wellington region is extremely fortunate to have such a active club in Branch 63 which in turn has a dedicated team of volunteers amongst its members who donate considerable amounts of both time and money to maintain and extend the Club's infrastructure and goals and thus gives great service to the ham radio community as a whole.

And finally I'd like to thank former Repeater Trustee Peter Moore ZL2HM for his efforts and service to the club over the years.

Simon, ZL2BRG.
Repeater Trustee.

Office and Committee Holders 2013-14

President:	Mark Gooding	ZL2UFI
Secretary:	Justin Southam	ZL2UGL
Treasurer:	Gavin Smith	ZL2ACT
AREC Leader:	Gavin Smith	ZL2ACT
AREC Deputy:	Oliver Ewert	ZL2OLY
Repeater Trustee 1:	Simon Eatough	ZL2BRG
Repeater Trustee 2:	Gerry Therkleson	ZL2TDN
Repeater Administrator:	Mark Gooding	ZL2UFI
Callsign Trustee:	Tom Dixon	ZL2HGR
Exam Administrator:	Gavin Smith	ZL2ACT
Exam Assistant:	Eric Wilb	ZL2SET
Equipment Manager:	Eric Wilby	ZL2SET
Webmaster:	David Phillips	ZL2DBP
Editor of QST63:	David Phillips	ZL2DBP
Editor Assistant:	Mark Wolstenholme	ZL2WOL
Committee:	All members	

Wings Over Wairarapa

2013 Air show

A couple of shots of a rare de Havilland Mosquito FB Mk.26 Fighter Bomber.

Here flying with two de Havilland Vampires and one de Havilland Venom.

Letter from a satisfied customer

Hello all,

Chuck, AC7GZ, Chandler, Arizona, US here. Just thought I'd drop you a note to let you know ZL2MHF is a "regular" here in Arizona. I've accused you of having a local repeater in Phoenix, Arizona, Hi! I operate a beacon, AC7GZ/B on 28.2118 from the home QTH, and I monitor quite often from the Arizona State University Research Park about 4kM west of the QTH for several reasons:

1. It is a very large; open area with 3 large lakes
2. All of the electrical utilities are underground
3. The companies which occupy the park grounds tend to be involved with semiconductor research; hence they do not operate any significant sources of RFI
4. It is far enough from my beacon that I do not have to shut down my beacon in order to listen.
5. And finally, it is a great place to walk the dog to give her some exercise as well as her two retired owners.

What I find very interesting is that ZL2MHF is audible more often than not, and in many cases I may hear only one or two other beacons from North America, but your beacon is audible from about 1700Z through local Grayline times. Whatever you are doing, it is certainly effective. I may hear ZL6B 2 or 3% of the times when I hear ZL2MHF. In general terms, when the solar flux is >90 and the Kp is 2 or less, I can hear your beacon.

For the specifics this evening, here is the report:

Antenna: 1/4 wavelength stainless steel whip antenna mounted on a full-size Chevrolet pickup truck (Photo attached)
Rec: Yaesu FT-817
Location: Arizona State University Research Park, Tempe, Arizona (DM-43) Tempe is a suburb of Phoenix.
Time: ~0140Z, 3 April, 2013
Ur sigs: 519

I do not pursue QSL cards. After nearly 40 years as a Ham, I've come to enjoy being heard and hearing--and that's enough for me. The XYL heard your signal too, and although she is a "no-code" ham. she was watching our MFJ beacon monitor and could hear your signal right after the very strong signal from KH6WO.

Thanks for the work you do keeping the beacon on the air, and best regards.

Chuck, AC7GZ

How to use the D-STAR REF Reflector System

by Mark S Gooding ZL2UFI

A brief introduction to D-Star Reflectors:

Reflectors are somewhat similar to the Conference Rooms on EchoLink or Reflectors on IRLP systems. At any time any number of D-Star Repeaters from around the world can be linked to a Reflector.

This means that when you transmit through any D-Star repeater when it is linked to a Reflector, your transmission can be heard on all the other Linked Repeaters.

For RF D-Star repeater users to have access to the REF Reflector System a program called DPLUS needs to be running on their local Repeater Gateway. DPLUS enables D-Star Repeaters that are connected to the US Trust Server D-Star network to link to Reflectors & other Repeaters directly.

DV Dongle and DVAP users are independent of any local repeater so they can connect at will to the various REF Reflectors. These users will also display on the status pages of a Reflector. So it they too are linked to a reflector your transmissions will also be heard by these users as well

The ZL2VH Gateway has DPLUS installed.

Other reflector systems do exist in the D-Star world such as XREF, DCS, CCS and All Star. Currently the only one supported by ZL2VH is REF. This article is all about the REF System but can be used with or by the other systems if you have access to them.

How to Link to a Reflector:

To Link to a Reflector, first decide which Reflector & Module you want to connect to. For example, if you want to connect to Reflector 003 Module C (in Australia) then you need to transmit the following command:

YOUR: REF003CL (The L in the 8th position commands the repeater to link to **REF**lector **ZERO ZERO THREE** module **C L**ink)

The local repeaters callsign must be in the RPT1 and the local Gateway in the RPT2 Location on the transceiver.

Example:
YOUR: REF003CL
RPT1: ZL2VH C (Port letter C 2M, must be in the 8th position)
RPT2: ZL2VH G (the G for Gateway must be in the 8th position)
MYCALL:<your callsign>

If you are successful the repeater will reply with an announcement “Remote System Linked”. A simple kerchuck of the repeater is all that is required for any command such as this, not actually voice comment is required, but as good operating practice words like ZL2VH connecting to Reflector 003 Charlie”.

Now that you have linked the repeater to Reflector 003C you need to return your transceivers YOUR: information to CQCQCQ, otherwise the repeater will attempt to Link every time you transmit and will constantly announce “Remote System is Currently Linked”.

To unlink from a Reflector transmit the following information, YOUR: U (seven spaces and then U to Unlink which must be in the 8th position).

Example:
YOUR: ——-U (seven spaces then the U in the 8th position)
RPT1: ZL2VH C (Port letter C, must be in the 8th position)
RPT2: ZL2VH G (the G for Gateway must be in the 8th position)
MYCALL: <your callsign>

In order to link and unlink from reflectors, it is a good idea to create separate memory channels in your transceiver to handle the various functions. The following are examples of how you might program your radio to link and unlink from a given Reflector. This is only an example as you may wish to choose other Names for your memories and save them under different memory numbers etc.

Memory 1 (normal channel use for ZL2VH B repeater)
Alpha Numeric Name: 860
YOUR:CQCQCQ
RPT1: ZL2VH B (Port letter B must be in the 8th position)
RPT2: ZL2VH G G (the G for Gateway must be in the 8th position)
MYCALL: <your callsign>

Memory 2 (used to link Repeater ZL2VH C to Reflector 003C)
Alpha Numeric Name: 860 LINK
YOUR: REF003CL (The L in the 8th position commands the repeater to link to REFlector ZERO ZERO THREE module C)
RPT1: ZL2VH B (Port letter B must be in the 8th position)
RPT2: ZL2VH G (the G for Gateway must be in the 8th position)
MYCALL: <your callsign>

Memory 3 (Used to unlink a repeater from any reflector)
Name: Unlink (optional)
YOUR: ——-U (seven spaces then the U in the 8th position)
RPT1: ZL2VH B (Port letter B must be in the 8th position)
RPT2: ZL2VH G (the G for Gateway must be in the 8th position)
MYCALL: <your callsign>

As an example and using the memory channel examples above, use the following procedure to link ZL2VH B Repeater to Reflector 003C:

First switch to memory channel 1 and listen to assure that the repeater is not in use then announce your callsign and your intention to link to Reflector REF003C.

If the repeater is currently linked to a different reflector you must first disconnect from the currently connected reflector by going to memory channel 3 and pushing the PTT button. The repeater will tell you that it has unlinked.

Next switch to Memory 2 and press your PTT button.

After the link is established switch to Memory 1 and wait for a few seconds to check that the Reflector isn't already in use then make your call.

When you have finished on the Reflector announce that you are unlinking, then switch to Memory channel 3, and push the PTT button.

The local repeater will announce that it has unlinked.

Then switch back to Memory 1 for normal use on the local repeater.

This memory positioning of linking makes it very easy to link and unlink from any reflector very fast, and is ideal whether used from home base or mobile. In my experiences when done mobile it is far easier that doing a simpler process on say IRLP.

Reflector Modules:

Most, if not all Reflectors have at least 5 Modules labeled, A, B, C, D and E.

You will probably find most activity is on Module C.

From experience the most active Reflector Modules are 001C and 030C in the USA, with Australia on 003C.

Note: that Reflector module designations do not refer to and have no relationship to the Port letters used on D-Star Repeaters.

Reflector Status Page Links:

http://ref001.dstargateway.org

http://ref003.dstargateway.org

http://ref030.dstargateway.org

ZL2VH Gateway Status page:

https://123.255.47.67

KMCC AREC Event

I'd just like to thank the operators for the last two days for giving up a day (or two) of their weekends, to assist the club with this event, as the donated funds will assist us greatly with the maintenance for Mt Climie.

Saturday operators: ZL2DBP, ZL2SY and ZL2UFI
Sunday operators: ZL2ABN, ZL2ACT and ZL2DBP

Two pictures attached – one operator working hard(?), the other a rider attempting to get the longest leap off the main drop off before the start/finish line. One incident on Saturday was the rider who missed this leap and landed down the bank in a wasps nest – an interesting removal of the rider and bike then took place!

Mark ZL2UFI