



# QST63

WWW.ZL2VH.ORG.NZ

Branch 63 Clubrooms  
Park Street, Upper Hutt

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

## June 2010

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### Presidents Report: June 2010

Hi everyone...

Not too much to report this month, but thanks to all those you made the effort to turn up to the clubs AGM. I realise that this can be somewhat intimidating for some hoping not to get nominated for a job but this year most positions have been filled.

The organising committee of the Wellington EXPO has met and decided on the next sale date, which will be Easter Saturday 2011, to coincide with the VHF Convention. See the article in the latest Break-In about the EXPO'10 event.

NZART Conference was held over Queens Birthday weekend and I am pleased to report that the clubs offer to run the 2011 Conference in Upper Hutt has been accepted. Planning will commence very soon and jobs will be allocated to everyone over the next few weeks and months.

See the promotional pamphlet that was included with the grab bags at the Auckland Conference, great way to win a new handheld! People have already started signing up for 2011!

Well that's the news from me... 73's and good DX....

Mark ZL2UFI, President  
President

**Club HF Net 3.715 MHz  
Every Tuesday at 0800 UTC**

**Listen for ZL2VH and *join in.***

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## Branch 63 Repeater Update

### 1292 (23cm)

Work Continues on construction of the 23cm repeater. The 23cm RF Deck and Tait IF have been on soak for the past 5 months at Simon ZL2BRG's QTH.

#### Antenna

John ZL2TWS has built a 10dbi gain Coaxial Co-linear Antenna for use with the repeater and it has been performing well on soak.

#### **RF Deck**

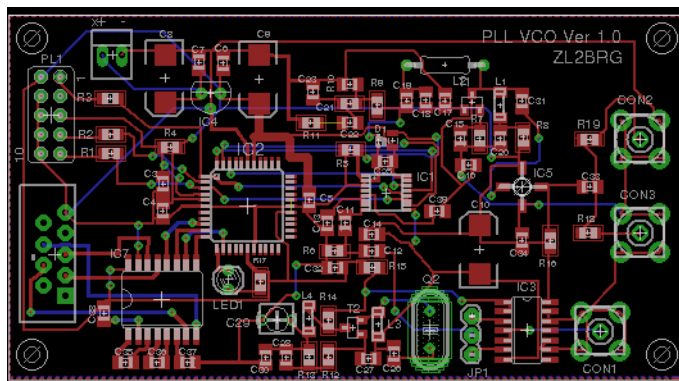
The soak period exposed a problem with the VK5EME 566Mhz Local Oscillator.

The 93Mhz Xtal drifted 20khz ( @566Mhz ) low over a 2 month period and was replaced with a 2nd from the same manufacturer. However that too was no better than the first. Xtal No 3 ordered from a different manufacturer is due to arrive shortly. There have been a number of reports of similar issues on-line with the same Local Oscillator PCB.

I have been investigating a long term solution to the Local frequency stability issue and that is to Phase Lock a 566 MHz VCO to a 10Mhz Xtal reference. This should give 6x the frequency stability of the current design. A PCB has been designed and is awaiting construction.

The new PCB will completely replace the existing local oscillator.

Apart from the issue with the oscillator the only outstanding work is fitting of cooling fans and fabrication of a cover over the top of the RX deck to protect the duplexer.



#### **Tait IF**

The IF strip has been performing well. A second set of TX and RX modules are being refurbished as spares, the age of the PCB's mean that the electrolytic capacitors have to be replaced.

#### **VK5DJ Repeater Controller**

The Repeater controller built by Paul ZL2UGR is working fine. There is a firmware update available for the PIC micro controller which may need to be applied.

#### **PSU**

The PSU Rack has been completed by Jens and John and is on soak and performing well.

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## 860 (70cm)

Since January the 860 repeater has been running on a single dipole antenna and has been giving reasonably good coverage. However recently this antenna has started to give problems and discussion has commenced as to the best replacement. One solution maybe a coaxial co-linear constructed by John ZL2TWS. There is also ongoing discussion of siting of the antenna.

An IRLP node was recently added to 860 to relieve some of the traffic off 730.

## 730 / 5425 (2m) Repeaters

John ZL2TWS Recently surveyed the PSU of the 730 and 5425 repeaters and found that the DC battery voltage was 12.9v. This is below the optimum voltage for the 12V lead acid Standby Battery. The reason for this was due to the volt drop across the series diodes.

John connected the (previously unconnected) remote sense inputs of the PSU to the battery side the series diode. ( See attached diagram). This then allowed the PSU to correct for the diode volt drop and the output voltage improved.

The PSU voltage after the mod was 13.55v The ideal solution is to use a temperature compensated charger since the optimum battery charge voltage is dependant on the battery temperature.

Simon ZL2BRG

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## IRLP Session—NZART Conference 2010 Auckland



# NZART Conference Upper Hutt

4-6 JUNE  
2011



On behalf of the Steering Committee,  
we welcome you to the Upper Hutt  
NZART Conference 2011.

The Conference will build on the  
success of the previous conferences,  
which were held in Upper Hutt in 2000  
and 1979. The objective of this  
conference is to further enhance  
NZART as an organisation and amateur  
radio. The conference will maintain the  
quality of the previous conferences  
while incorporating new features to  
enhance your experience.

## Location:

Silverstream Retreat  
3 Reynolds Bach Drive  
Upper Hutt

Phone: 04 562 9080

Reservation free phone:

0800 800 499

Fax: 04 563 5284

## Pre-registration

Wouxun KG-UVD1P Dual band VHF/UHF Handheld by pre-registration, valued at \$300.00.  
(with additional accessories of a USB Programming Cable and a Speaker/Microphone)

Send a cheque for \$25.00 to pre-register before 5 November 2010 and be in the draw to  
win this transceiver. It will be pre-programmed with New Zealand 2M and 70CM Repeaters  
(including National System Repeaters).

Prize draw will be announced in Break-In November/December 2010 issue.

**Pre-Registration:** UH Conference 2011, 204 Plateau Road, Upper Hutt 5018

(Note: there is no refund on this deposit by pre-registration.)



**NZART  
Conference  
Upper Hutt  
4-6 JUNE  
2011**



## Pre-registration

First Name \_\_\_\_\_ Callsign \_\_\_\_\_

Last Name \_\_\_\_\_

Home address \_\_\_\_\_

City \_\_\_\_\_ Postal Code \_\_\_\_\_

eMail Address \_\_\_\_\_

Home Phone \_\_\_\_\_ Mobile Phone \_\_\_\_\_ Work Phone \_\_\_\_\_

### Terms and Conditions of Pre-registration:

1. There is no refund on the deposit by pre-registration, regardless of whether you are the winner or not.
2. Prize draw will be announced in Break-In November/December 2010 issue.
3. The winner must agree to their first name and callsign being published in Break-In.
4. All pre-registration must be on this form.
5. Draw will take place under Police supervision.
6. Make Cheques payable to: UH Conference 2011, 204 Plateau Road, Upper Hutt 5018
7. All payments must reach Upper Hutt before 5 November 2010.