

# BREAKOUT

The Newsletter of the Hastings and  
Napier Amateur Radio Clubs

Hastings Branch 13 NZART – Napier Branch 25 NZART

Volume 11, Issue 1, January 2013



Hastings Br  
13  
Club Calls  
**ZL2AS**  
**ZL2QS**

Napier Br 25  
Club Calls  
**ZL2GT**  
**ZL2G**

**IRLP**  
Node  
6793  
147.250

**Branch  
Nets**  
9.00 AM  
Sunday  
Morning  
3615 Hz  
439.175  
mhz

**Editor**  
John Newson  
**ZL2VAF**



*The Captain's Table at the Combined Xmas Dinner  
More pics inside*

<http://groups.yahoo.com/group/zl2as/>



**Join the KIWI DX Group**  
**Talk to ZL2AL for Details**

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## HASTINGS BRANCH 13

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**Club Nights:** Fourth Wednesday each month at 7.30 pm Pakwhai Hall, Pakowhai Road, Pakowhai

## From PRESIDENT ROB

It seems that we have a "Sister City" President amongst our Break Out readers, Mike N7TLL. Recently he sent me a box of goodies. An Icom hat and "other" named paraphernalia and some books that members can borrow to have a read of, thanks Mike.

Well we've all had a nice break and have our heads down again charging into 2013 all rev'd up. I wish you all the very best for 2013. The tail end of 2012 brought our annual Br 25/13 combined Xmas Tea, (see pix elsewhere). Those that attended had a great night and the xyl's got to find out what their OM's have been doing throughout the year, amateur radio-wise, except for the "boys weekends away", the contents of those are sometimes best left undisclosed hi hi..

Ric ZL2RIC has donated our Branch a mower so we can do the Hall lawns (our contribution to the Pakowhai Community Hall group), so in return when you have a small engine item that is in need of repair remember Ric, he's the boy to solve your problem in this area. Many thanks Ric.

Not much more to report this month, perhaps I'm still in holiday mode. Looking forward to seeing you at our next Br 13 meeting at 7-30pm, Wed. 23 Jan.

A reminder that Br 13 Sub's (\$20) are due. Peter (ZL2PW) and/or David (ZL2DW) are able to receive your sub. Thank you.

73, Rob ZL2US

## **NAPIER BRANCH 25**

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**Committee Meetings:** *Third Monday of the month 7pm at Club Rooms*

**Club Calls:** **ZL2GT, ZL2G**

**Club Nights:** *First Wednesday each month (except January) 7.30pm at the Club Rooms:  
123 Latham Street Napier*

## **Napier News.....**

First all the usual stuff about how everyone is all holidayed out and refreshed ready to face another year all raring to go. All the New Year resolutions made with the best of intentions, like clean up the shack, finish all the unfinished projects, biff out all the junk, try and make it to more club meetings. Yeah, right, as they say.

HF band conditions have been poor, so if you have been on a radio-free holiday, you haven't missed much. However, predictions are for another peak in the present sunspot cycle later this year. The only real DX over the Xmas/New Year period has been on VHF, with some spectacular 6 and 2 metre DX contacts from ZL and VK.

Napier club projects for this year are a repaint, inside and out, of the Latham St clubrooms, and a working bee on 26th Jan to erect VHF and UHF antennas and paint the boarded-up windows. Also in the long-term plan is an antenna for 20/15/10 metres, probably a trap vertical or a tri-band beam. Re-vamping of the clubrooms shack continues, thanks to Lee, ZL2AL. (See photo in this issue).

A VHF fox-hunt is planned for February, details to be in next Break-Out. You will need a 2 metre receiver, i.e a hand-held, and a suitable directional antenna. Transmit capability is not required, so you can still participate if you do not yet have a callsign.

Next Napier meeting is Wednesday 6th January. Also Te Puke Amateur Radio Club junk sale on 2nd March at Paengaroa, always a well attended event.

ZL2TC

## A Promotion Note for our Guest Speaker at the next Br 13 Meeting (23 Jan 2013)

Jan says,

It's about cheap USB digital TV decoder that someone figured out can be used as a software defined radio. It is quite amazing, for about \$20 USD to get a small USB receiver that covers most of the VHF and UHF bands.

From website: *DVB-T dongles based on the Realtek RTL2832U can be used as a cheap SDR, since the chip allows transferring the raw I/Q samples to the host, which is officially used for DAB/DAB+/FM demodulation.*

*The RTL2832U outputs 8-bit I/Q-samples, and the highest theoretically possible sample-rate is 3.2 MS/s, however, the highest sample-rate without lost samples that has been tested so far is 2.8 MS/s. The frequency range is highly dependent of the used tuner, **dongles that use the Elonics E4000 offer the widest possible range (64 - 1700 MHz with a gap from approx. 1100 - 1250 MHz)**. When used out-of-spec, a tuning range of approx. 50 MHz - 2.2 GHz is possible (with gap).*

Jan ZL2CZE



### Rob's Home Brew Entry

At my end stage of the Silver Fern Rally, I couldn't get vhf coverage plus the HF poles I use aren't super light. I came away thinking I would like to make a lightweight aerial pole that was A cheap, B light weight, C quick to erect.

It just so happened the next week I wandered past a favourite rubbish bin and in it were a set of screens, poles and stands. I managed to salvage as many poles and bits as I could plus retrieved the screens for SAR usage. I made the triangular brackets to hold the ropes from a discarded radio cradle as I wanted some hardish aluminium. The stands were already made and have a heavy bottom so I drilled holes in them so that I could either peg to the ground or drive a wheel over to hold. All in all it all went together very quickly and I only paid for the brand new guy ropes and some cheap carabiner clips. I already had some pegs and bits of coax and fittings for the aerial.

The next weekend was the original test at the Sarex and it did go up quickly and I just kept adding poles until the height was about right at 7 metres. It achieved the 3 goals above and I intend adding a few refinements including a lightweight bracket for the lightweight HF aerial I have and it should be ready for the next event.

Rob ZL2SG



# Br13/HBARC and Br25 Combined Xmas Dinner Party



# Internet Links

Supplied by ZL2UBG and ZL2WWW

## youtube video on waves

This youtube video on waves (including termination, reflection and standing waves) is old but good - others may find it interesting too:  
<http://www.youtube.com/watch?v=DovunOxIY1k>



## carbon nanotube pencil

MIT creates carbon nanotube pencil, doodles some electronic circuits  
A team of MIT chemists have created a carbon nanotube “lead” that can be used to draw freehand electronic circuits using a standard, mechanical pencil.  
<http://www.extremetech.com/extreme/137555-mit-creates-carbon-nanotube-pencil-doodles-some-electron>



## Akihabara Electric City Tokyo – Video

This is the heart of Tokyo's electronics district  
<http://www.youtube.com/watch?v=aSeO0c4Q4Ac>  
and  
<http://www.youtube.com/watch?v=0DHX2FruBog>



## Open-Hardware Licensed Handheld Software-Defined Radio In the Works

Chris Testa recently presented at TAPR Digital Communications Conference and announced his development work on a hand-held software defined radio. Running uClinux on an ARM Corex-M3 coupled to a Flash-based FPGA, it will be capable of receiving and transmitting from 100MHz to 1GHz. Designed to be low power, Chris has designed the radio primarily with the Amateur 2m and 70cm bands in mind. Currently in early prototyping stage, Chris intends to release the design under the TAPR Open Hardware License.  
<http://www.tapr.org/dcc.html>  
and  
<http://www.youtube.com/watch?v=YrbmIP1M1AI>

## NOTICES

### 11 May TransTasman 80m Contest

– considering operating from BR 25 Clubroom. Make a note in your diaries.



### 20 July TransTasman 160m Contest

– the Tukituki Camp site is booked already. Dairy this event too. Note that there is a DIGITAL Mode section in this event. So for all those who built the PC/Rig interface units, hook ‘em up at home and get some practice using FLDIGI Software.