

# BREAKOUT

The Newsletter of the Hastings and Napier Amateur Radio Clubs

Hastings Branch 13 NZART – Napier Branch 25 NZART

Volume 22, Issue 5, May 2022



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

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

**IRLP**  
Node  
6793  
147.250

Branch's  
13/25  
Net  
9.00 AM  
Sunday  
Morning  
670  
Repeater

**Editor**  
John Newson  
ZL2VAF



Radio Rack  
(see page 6)



<http://www.zl2gt.nz/>

<http://www.zl2as.org.nz/>

**Emergency Call-in Frequencies: 3615khz and 670 repeater**



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## **NAPIER BRANCH 25**

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**Committee Meetings:** 7:30 pm, 3rd Tuesday of January, March, May, July, September, November

**Club Calls:** ZL2GT, ZL2G

**Club Web Site:** <http://www.zl2gt.nz/>

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

## **Napier Amateur Radio Club Branch 25 NZART**

By the time you read this, Errol will have completed part one of his Home Brew series, making use of the new screen and telling all those interested about how to convert hand drawn or copied circuit to schematic, using on line tools like Easy EDA, with a following session on Sunday 29th May converting said schematic to a PC board design, which could be made by a PC House, or as Errol will explain, laid out and etched by oneself. Further sessions could include other on-line tools like LTSpice, Elsie and others which make home brew work like professional design, naturally all are invited to attend any of these sessions starting at 1:00pm. Advise on what is on will be distributed through the usual channels.

The Club has ordered a new IC7300, and RWB have kindly given us a club discount, we are on the hunt for a good Iron and copper 25 to 30 amp 13.6 volt DC supply. A computer has been donated so that digital modes can be used / demonstrated and electronic logging can occur.

The vertical HF antenna has had its cable repaired (thanks Stu) and the long wire has had its new UN UN installed (thanks Stu and Mike) some fine tuning of this antenna may be required, but appears to work quite well. The beacon PSU has been found to be noisy, and will be replaced with a copper Iron model. So the shack remake is well on its way.

If you think a "shack night" would be useful, where more experienced hams can demonstrate to newer hams, or you just want a crack at the new rig, then let one of the committee know and it can be arranged. The new rig is due for delivery in mid July.

The sale of used equipment continues, so be in to win, proceeds to club funds, most offers have been accepted, so don't be shy about your offers.

Have a look at the club Facebook page, join it and be in on news that occurs between publication of this newsletter.

That's all for now see you at the next meeting on 1st June 7:30pm at the Clubrooms Latham Street.

73 Dave ZL2MQ



## HASTINGS BRANCH 13

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<b>Club Call:</b>	<b>ZL2AS and ZL2QS</b>		

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

## From the top table

Well the HF bands have been really good and I have been very busy working the bands as much as I can. As for the branch we have not been doing a lot and I guess now we are moving into winter not much will be happening till things warm up again. It will be a good time for those of you that have indoor projects to do, winter is going to be the right time to get on with them and also sort out some of the stuff you don't need as July is our world famous donated junk sale and that is always a lot of fun. You come with nothing and we will send you home with lots of goodies, something for everyone.

Once again I ask you all to have some input into the club even if you just write a small article for the mag it is more than welcome and I'm sure you all have some thing to say or tell the rest of us some of the things you have been up to. Most of you don't sit around doing nothing, we all do something to fix or make our stations better. I have a neighbor who plays in a band and she plays the drums. Just this week she has told me that I am going though her speakers but she can't make out what I'm saying, which I understand as I'm on sideband and it will be inaudible to her. The question is do I try to fix it for her or hope by doing nothing it will go away? As I said to her it's a small price to pay for us to have to listen to her and the band practicing on Thursday nights. The noise is quite loud as they do practice in a car shed at the back of her place. At night the sound carries. She teaches drumming to other people during the day and after school. We have to put up with the noise quite a lot. No one around here complains to her we just get on with it.

My answer is let sleeping dogs lie and do nothing.

The Branches 13 and 25 are going to have a combined dinner next month to celebrate the 75 years that we have been going for and it would be really nice if



*Branch 13/HBARC, Hastings, office bearers,  
David Walker ZL2DW (Secretary),  
Blue Smith ZL3TT (President),  
Peter ZL2HM (Treasurer).*

we all got in behind this event. It is a good time to remember those that went before us and got things started to help make it possible for us today to enjoy what we have today. It would be great if you could make an effort to attend and have some fun and talk rubbish to each other. It would be good if you were new or young to attend and get to know everyone. If it was a radio sale you would be there in a flash HI HI.

Contact David ZL2DW to make a booking

Well that's it for this month so till next month all stay safe.

Good DX and 73s

Blue ZL3TT President Branch 13 HBARC



## The next Branch 13 Meeting

- Wednesday 25 May. **7pm** start (as per the last meeting decision, ie 7pm meeting start time until daylight saving time change)
- we will deal with the two NZART remits, bring your Break In along (with the remits in it).
- the guest speaker will be David ZL2DW giving a talk/demo. on his recent Marine VHF DF event relating to a vessel at sea.



## Branches 13/25 Combined MID YEAR XMAS TEA and 75th ANNIVERSARY TEA

(on the same night)

6pm, 23 June, at "Off The Track", Hastings - Havelock North Rd, a menu meal. Booking numbers to David ZL2DW.



## Branch 13 "Donated Junk Auction"

after the normal meeting on 27 July. Start gathering your goodies and money.



## Straight Key Night

Straight Key Night (Winter Edition) will be held on Sunday 12 June from 8pm to 9pm on 80 metres. SKN is not a contest, but it is a great chance to dust off that straight key and let us hear what it can do. Details at [radio1nz.com/skn](http://radio1nz.com/skn)



## Wanted

I am going back to my roots and wish to build some crystal sets. I am in the market for Litz wire. If anyone has some, let me know, even if I have to unwind it.

ZL2TSU

## Ham Radio Home Brew Design Workshop

I am intending to co-ordinate a Workshop for those interested in making any electronic project using modern free design software to enable members to produce and assemble their own projects, or build a common project (2 tone oscillator for SSB tuning and alignment).

The proposal is to meet at the Napier club rooms 22nd May starting at 1pm and to follow on each week.

This workshop is open to any interested electronic enthusiast.

The following is the proposed objectives

1. Installation and explanation of the free design software (Easy EDA)
2. Methods and layout of schematics,
3. Converting schematics to a printed circuit board layout
4. Making and etching the project printed circuit board
5. Soldering techniques for SMD components etc
6. Using other free design software to design Filters, Active circuits, Antennas etc.
7. Any other related subject that arise from the above

The above is envisaged to take at least some weeks and it is not intended to be pressure cooker type sessions. However you would be encouraged to experiment at home to gain experience etc.

If the above workshop is successful, I hope it will continue as a forum for Home Brew electronic education and a meeting place for enthusiasts.

Remember: 22nd May, Napier Amateur Radio Club room's, Latham St, 1 pm. All welcome. It is preferable that you bring a Laptop with you with windows 10 installed. However if this is not possible, then come anyway.

Errol Lilley, ZL2IT



## HB AREC Group

AREC has undergone some huge changes over the last couple of years. It has gone from being a one man band to having layers of officers, a paid CEO who is able to employ paid part time assistants and every aspect has been redefined and put onto a professional footing.

The way LandSAR operates has also changed. We now have to run rosters of operators during a search. This has highlighted the fact that the five operators involved are not enough. We would preferably have six operators available for each search doing 8 hour shifts. This would mean we would need ten operators as a minimum as not everyone is available at a moments notice for a search. Easter weekend is a classic one, we had a search and only two operators were available.

AREC are going to begin a nationwide recruitment campaign in the next few weeks so hopefully we may be able to pick some more members up out of this. This also means an increase in the local branches as to belong to AREC you have to belong to NZART and a local Group.

Hopefully I will be able to flesh this out a bit more in following Newsletters.

John ZL2VAF/ZK2EE AREC District manager and HB AREC Group Leader

## Radio Rack

Now for those that know my little workshop.

Dad built it back in the 1960s, and it was great for the time.

I sat on a stool, and worked on the bench with my little multi meter and soldering iron, and that was good .

But now, sitting on the stool, doesn't do my back any good . And so, as I have a leather chair, one of those office chairs. Which had three levers on it. It went up, down, sideways , forward and back. It could do the Hoochie Coochie and turn around , life was good , and my "sit upon " liked it. But it had quite a lot bigger footprint on the floor.

The situation now was that the bench met my stomach, then there was back of the chair and then there was the back wall. Something had to go, the back wall got the short straw, and if any one says "that something else could be trimmed down" they are off my Christmas card list. So over the summer I knocked out the back wall and built out an extra 560 mm of room .

This now allowed me to put in a metal rack, so that I can put all my radios in one place rather than have them scattered around all over the place. (See fig 1.)

On the top shelf on the RHS, you can see one of my computers. This runs my SDR radio or will, as soon as I get it figured out because the USB for it is locked out so that's a PROJECT.

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Next to it on the LHS is a satellite box, that I understand it is based on Linux and if I can hack it, I might reconfigure it to work on some amateur radio satellites PROJECT.

Next shelf down , from the top on the RHS is my 6m transceiver that needs a aerial . Which I have the parts for, a copper dipole aerial, made from 1/2 inch copper pipe PROJECT.

Then I need a power supply to run it on , 6 volts PROJECT.

Underneath that is an ICOM IC 22s I bought at the famous sale night of Branch 13 , here in Hastings. Where there is some good stuff to buy.

This is also a PROJECT.

Underneath the ICOM IC 22s is a power supply which does work which was given to me by a very kind gentleman at the club.



Next to that on the left is a printer given free to a good home.  
You always want to print out little circuits that I find on the internet .  
The next shelf down with the empty look about is room for.

- |                               |          |
|-------------------------------|----------|
| 1 Aerial tuner unit           | PROJECT. |
| 2 SWR meter unit              | PROJECT. |
| 3 Dummy load power meter unit | PROJECT. |

On the far RHS , that PCB with all those wire's sticking out, and those four Golden coloured Toroidal is a 3 phase mains filter .

I picked up from work to try and remove the RF noise that I have in the workshop.

Play the sound file ( 80 meters ).

Play the sound file ( 40 meters ).

Now I am recording this on my computer to make the audio files. So I have the computer , monitor the router and the LED lights running.

I am using the ZC1 as the receiver on 80 and 40 meters with my long wire aerial.

I was going to show you the noise the LED lights make , but every thing else just swamps them out. Now these 6 lights are all in a metal housing. All earthed and all have a large Ferrite filter right on the end of the socket. All 6 of them. I'm going to reconfigure the mains filter PCB for single phase and run my radios from it. Any one who says "why don't you just change the LED lamps for Incandescent or Halogen lamps" Is also off my Christmas list. So that's another PROJECT.

Next shelf down (that black homemade radio one).

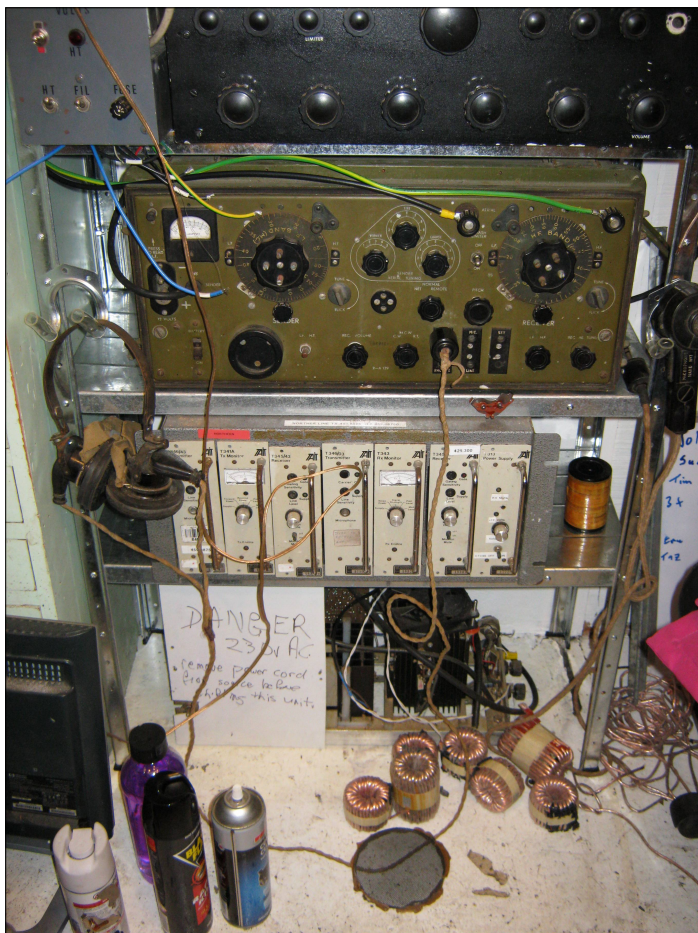
This I bought from the famous Branch 13 goodies sale. It's all valves, I found the circuit for that from the RSGB handbook 1975.

The Gray thing far LHS with the meter on top, is the power supply that I'm building for it PROJECT.

Do you know how hard it is to buy a mains Transformer 230 volts into and out today?

Lucky for me one came into where I work some days.

If you now refer to (figure 2) there is a ZC1 mark 2 which goes sort of. If the microphone is plugged in the transmitter will jam on.



But receiver is still on. I was listening around for a signal one morning nothing on my long wire aerial and nothing but LED noise. Then the sound died. So that's a PROJECT .

Next shelf down is a rack system . This is my 432 transceiver unit. Now I know branch 48 Wanganui use one of these as a 432 MHz repeater. The circuit is available, I just have to buy one and then PROJECT.

Then right on the floor is a 12 volt power supply. I bought this at our famous Branch 13 goodies sale. So I need to figure out what the circuit is and get that going. Now this is a linear power supply rather than switch mode and will be a PROJECT.

A linear power supply may have Hum on the power rails but NO switch noise . So now I am off inside for a coffee and a bickie

Eric ZL2TSU