BREAKOUT

The Newsletter of the Hastings and Napier Amateur Radio Clubs

Hastings Branch 13 NZART - Napier Branch 25 NZART

Volume 25, Issue 1, January 2025



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



"What is it?" Answer in the Mag ZL2BFO

http://www.zl2gt.nz/ http://www.zl2as.org.nz/

Emergency Call-in Frequencies: 3615khz and 670 repeater





https://arec.nz/join-arec/

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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

Branch 25 Presidents Report

Welcome to 2025 I hope everyone had a great time off over the holidays and are keeping to whatever resolutions you made.

Recent events serve as a stark reminder of the importance of being prepared. The devastating wildfires in Los Angeles have not only ravaged landscapes and taken lives but have also underscored the necessity of having alternative communication methods at our disposal.

When disaster strikes, like the LA fires and our own cyclone of 2023 cell phone networks can become overwhelmed, rendering our primary mode of communication unreliable. This is where our expertise as amateur radio operators becomes invaluable. In light of these events, I encourage all members to revisit their emergency preparedness plans and ensure they have a well-stocked "go bag" ready at all times.

Here are some essential items to include:

- Portable Amateur Radio Equipment: Ensure your radio is fully charged and you have spare batteries.
 Vital Documents: Keep copies of important documents, including identification, insurance papers, and medical records.
- First Aid Kit: A comprehensive first aid kit with necessary medications.
- Food and Water: Non-perishable food items and enough water for at least 72 hours.
- Clothing and Personal Items: Warm clothing, sturdy shoes, and personal hygiene items.
- Maps and Local Frequency Lists: Keep physical maps of your area and a list of local frequencies for emergency communications.

Stay safe, stay prepared, and keep the frequencies open.

73,

Bryce Gilbert President, Napier Amateur Radio Club

HASTINGS BRANCH 13

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Stephen Simpson ZL2SPF

Club Call: ZL2AS and ZL2QS

Net Controllers (Sunday '670 repeater, 9am) ZL3TT/ZL2DW

Club Nights: Fourth Wednesday each month (except December) at 7.30 pm Pakowhai Hall, Pakowhai Road Club Fees \$20 per year payable to Branch 13 a/c # 03 0642 0733310 00 (use your call sign as a reference).

Musings from the President

Well, hello everyone. Welcome to a new year. It was good to see the turn-out for the AGM, I think it bodes well for the future of the club. One item of business was the club subs, and in a world where costs seem to go up everyday we are bucking the trend and they are to stay the same.

Reminder, subs are due.

I have some impressive past shoes to fill in taking on the role, however with the depth and breadth of talent within the club I am confident our future looks positive. I will reiterate Blues' comment from last Break Out, It is your club, come along and make yourself known.

Get involved.

For new(er) 'Hams', don't be afraid to ask questions. If you would rather not ask 'on air' contact any of the committee members (contact details elsewhere in the newsletter) and if the person you contact can't help directly, they will be able to put you in touch with someone who can. There is a huge pool of knowledge available within the club and there are no dumb questions, just dumb mistakes. As a senior flight examiner told me when I was completing one of my flight ratings "We all learn from mistakes, it is far better to learn from someone elses mistake".

What we have in common is an interest in radio, we have diversity in what aspects of the hobby we pursue, and outside of the hobby people are involved in a lot of interesting 'things'.

As a group we were into diversity before it became fashionable!

For those who don't know me too well, a short bio. I was born in the UK not far from the Marconi research and production facility so I was probably irradiated at birth. My fascination with radio was sparked when I sat and listened to Sputnik-1 beep-ing its way through space in 1957. That led to building crystal sets a later a Hikers-1 receiver (some 'Old Timers' may remember them) and later on buying an OC71 transistor that came in a 35 x 35 x 100mm box wrapped in cotton wool, the device went on to be used in numerous projects before it did what all germanium transistors seem to do, turn into a diode.

I subsequently spent most of my career in telecommunications, with forays into engineering of one sort or another.

Gaining my Amateur radio Certificate in 1975, I have spent most of the subsequent years building 'stuff' and experimenting. One thing I have found out is electronic bits and pieces run on smoke. This can be ascertained from observation, when the smoke gets out, they

stop working. And some times when the smoke wants to get out in a hurry it is accompanied by flashes and bangs.

As the club re-establishes our presence at Pakowhai Hall, there are inevitably going to be jobs that need doing, If you have expertise that will make jobs easier, don't be shy, any help or assistance will be appreciated.

If there are 'things' members want to see happen, or ideas on what we as a club can do, please don't be shy, a phone call or email to start the ball rolling is all it takes.

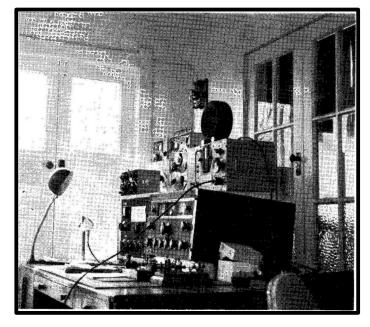
As we embark on a new year, the committee is in the throes of establishing a varied and interesting calendar. Come along and make yourself known, putting a face to a voice is always interesting. 73 for now,

Keith ZL2TAB



The ZL2OU Story

(SK) John Douglas (Jack) Parminter ZL2OU was born in Wairoa in 1892 and lived there all of his life. He gave some Military Service during WW1. Initially he was involved in the Motor Repair industry but migrated to his own Radio Sales and Service business (on Marine Parade, Wairoa) retiring (probably) about 1969 but continuing to live in Wairoa until he became a SK in 1983. David ZL2DW



The station of Jack Parminter, ZL2OU, Wairoa, New Zealand, the "other end" of the famous daily sked with G5QA (Exeter), as recently reported In this feature. As well as having such an effective DX set-up, ZL2OU is a keen fisherman in the other sense - he runs a launch from his country cottage on Lake Waikaremoana, 80 miles from Wairoa. This photograph was taken by G6XJ/VK3AMM during a visit to New Zealand in February this year.



Photo of ZL2OU station. The TX was a home brew and used during the 1931 earthquake.

New antenna for the farm

1/4 wave wire antenna made out of bare copper wire1.3mm or 16 gauge.

Vertical measurement 48.6mm

4 radials 54.4 mm each

I wound 2 strands of the copper wire tightly together (hand drill with a loop of what was a tent peg) to make the verticals and radials. The vertical was then soldered to strengthen it somewhat. Then soldered it to the SO239 connector, attaching the radials on to the four corners of thesend connector and bolting them on.

The vertical and radials cut to length before testing with the SWR meter. Wow less than 1.3 SWR on transmit, not bad I thought for such a Heath Robinson looking antennae and so flimsy looking too. All this on 670.

The question was, will it work and stand up to bad conditions. Only one way to find out, take it to the farm and try it out. The coax was fed down a length of PVC electrical conduit 25mm diameter and about 3.5 meters long so that the antennae sat freely in the top of the tubing, take it up to the farm and try it out. My previous transmissions from the farm at Ohuka, 400 meters above sea level, were with a Yaesu FT-60 handheld transceiver on top of the hill behind the farm cottage as in the cottage reception was poor. So to find

something to give height to raise the antennae above the roof line from a pile of timber lying around, yes a length of discarded old building material, a bit rotten in places, would work. With the PVC pipe attached to the timber, erected to the side of the car port by the kitchen window and tied roughly to a downpipe, (much to the consternation of the Swifts nesting close by) all was ready, the antennae being about 3 feet above the eaves. The coax fed through the kitchen window and connected to the radio with a series of

attachments to be enable to fit the PL259 to the radio. The result was better than the top of the hill and so weather wasn't a problem any more.

Later having gone camping down in a paddock that we were working near, I erected the same set up on some gash timber found in the hay barn nearby, tied to the fence with old baling twine making sure there was no contact with the electric fence hot wire.

ZL2AK Peter gave the comment that the received signal through the repeater was good with no background noise.

In all the high winds, rain thunder and lightning and transport, this fragile antennae stood up to all that nature could throw at it and performed well straight from build. I was amazed!!

Dick (ZL2UDE) and Joy (ZL2UGV), Wairoa.

Ref. 1/4 wave ground plane antenna. MOUK Amateur radio blog





Aerials for the Building Club.

Over the Christmas break I had my usual cleanup. last year, there came my way some test gear, so that's now sitting plugged in and ready to go on half my bench. So theoretically I only had the half left to clean up.

I had some dual gate FET's which I had taken out of a old radio, as I had a project to use them in. They were on the bench with some IC's for a 40 meter SDR that I have built the PCB for, but not installed the chips in. I have put them safe somewhere ,and now I want to use them, I can't find them. I know they are safe somewhere just not where.

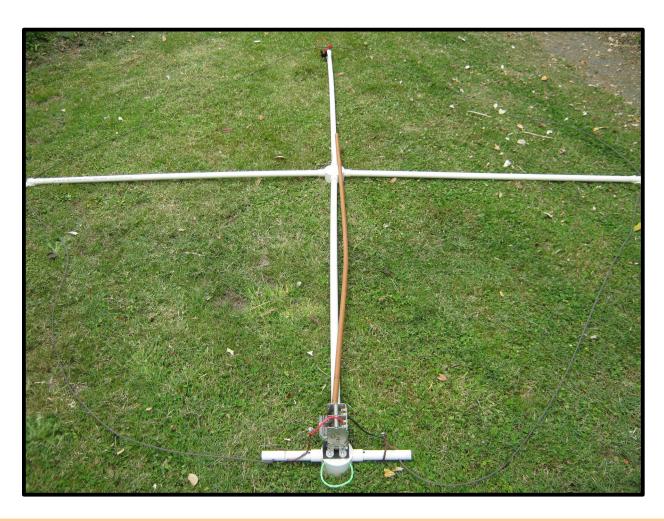
In the building group in Napier the team are progressing and we are at the point where we are starting to assemble boards onto those test jigs, that I made last year.

To run them we need to have some aerials so I decided to build three 40 meter aerial systems for the building Club .

Now if I made three centre taped 40 meter dipoles. That will need 6 times 10 meters lengths of wire, three sets of masts and the guy ropes to hold it all up. Equally I could have made three 40 meter vertical whips.

But that would need 3 times 10 meter long whips and the radials wires plus the guys ropes to hold it all up. None of these are portable in a small car.

So in the end I decided to build three 40 meter magnetic loop aerials. As I now have a large supply of variable tuning caps I found three the same with only twin variable caps. I have seen these used in magnetic loop aerials sold overseas.



The loop wire goes into one of the fixed side of the variable cap and out the other one. The two tuning caps are running in series and are joined together by the centre shaft (that's the one with the tuning knob on it, or in this case a wooden rod). This is important as the loop will have some amps of current flowing when in transmit mode. On the 3 meter diameter loop that I am building, on 80

meters with 50 watts of power, I can expect 35 amps flowing in the loop. This current flow must not flow through ball bearings or

wiper arms. Things go from variable to fixed very fast after the sparks have faded.

Butterfly variable caps or vacuum caps are the best, but I use what I have on hand, and at low power work just the same. To build these I need some plastic tubing the cheap stuff.

I decided that I was going to build a 2-meter diameter magnetic loop this would need just over six meters of cable which is good.

As you can see from the photograph it takes up a bit of room when assembled.

The only parts that are glued are, the two small arms at the top that are use to anchor the ends of the wire loop, and the top vertical shaft between the two round junction boxes.

Now you can only buy three arm junction boxes at the hardware shop that I go to, and I really needed one to be a four way.

So I drilled a hole on the bottom and glued in a threaded coupling unit. The two side spreaders and the bottom tube and not

glued in place they are just a push fit. As you can see from the photo we have a small green loop of rope coming out the top and this is used to hang the aerial up on to the skyhook.

This plastic tube is not strong enough to be self supporting but they will hung ok from a skyhook or with rope over a tree branch.

Subtle hint to the senior members of the building Club that some screw hooks in the ceiling would be absolutely perfect for these and we could have three aerials hanging there then three of us can all talk to each other from across the room on 40 meters.

The magnetic loop aerials all break down into a bundle of parts that fit into a small car.

I'll bring one along to the branch 13 club for a show and tell on Wednesday.

Now we still got some work to do on these I need the turns ratio on the Toroid core to be set up so if also the senior members can bring along their VNA's to the next Club night and we will check them for best signal loading, then the toroid for coupling the coax feed to the loop can be mounted in a small plastic box to keep it from being broken.

The mark two version of the tuning system will be motor drive for remote tuning of the aerial.

There are two ways to work this

A: a small dc motor with mark space variable drive or

B: a small stepper motor with its own drive system.

At the moment I have fitted a wooden rod for manual tuning so that you can tune from the ground. As I don't have a licence to use my VNA, how to test that this aerial will work at all?

So thinking about it in the middle of the night I decided to take my receiver a Frog (FRG-7) out to the carport and hook the aerial up to it.

I then tuned for maximum noise and I was so relieved when this happened.

At the QRP transmitters that we will use the voltage across the variable cap should be under 1.51KV and current flow 3.3 AMPS for 40 meters. Things happen with these aerials. I tried to see if this aerial will tune down to 80 meters but no luck, the variable cap is not big enough. These aerials and test jigs are available for Club members to take home for a limited time for running at home or taking out and about to some hill, lake or park for a bit of fun. With some testing by the building club members as to how they do or do not work. We may build some more.

Magnetic loops are a small type of aerial that can be used in today's hams small gardens. And in today's loud background noise from all the switch mode power supply's and led lights. The low noise characteristic of the magnetic aerial can be of help to today's ham.

I'm off inside for a coffee and a bickie.

Eric ZL2TSU





No problem, we'll have you back on the air in no time

AVAILABLE FOR OFFERS at the 22/1 Branch 13 meeting

Icom IC 551D 6m Transceiver 50 watts

Icom IC 735 HF transceiver with PS and Auto ATU

Antenna Analyzer 1.3 - 31mhz

Emtron Dip Meter

2m Linear Amp 30w output

FT 480R 2m all mode transceiver

FT 897 HF transceiver HF transceiver with ATU

SWR meter type SML SWR 25 3.5 - 150mhz

SWR meter type Osker SWR 200 3.5 - 150mhz

HF rotator type KR 400

A box of cables/Balun/PS

Bin of cables and heat sinks

FT 470 portable, dual band transceiver with accessories.

Revex type S20 coax switch

Books

Bundle of 2m mobile aerials

CB radio, type Ferris, multi mode.

Contact David ZLDW 0274 502501



Helpers/Newbies Wanted

After a pause our Branch 13 Pakowhai Hall HF aerial project is back on. The plan is to get new Ham's involved with construction and installation of an 80m Off Centre Fed aerial. Some work re this has started and anyone is welcome to be involved.

Contact David ZL2DW 02374 502501



WANTED

At the last Branch 13 meeting in November someone took home a black bin with goodies in it, please can I have the black bin back.

Thank you,

David ZL2DW 0274 502501



Branch 13/HBARC Meeting Notice

22 January, 7-30pm, Pakowhai Hall.

A debrief of the recent committee meeting will be given and further input solicited from members.

There will many items on offer, from an Estate and random other items for Club funds. Offers wanted for everything.



Valve Man -History or source unknown



Understanding Ham Radio Lingo and Jargon

https://unicomradio.com/understanding-ham-radio-lingo-and-jargon/



Longest Operating OSCAR satellite (meaning Orbital Satellites Carrying Amateur Radio)Satellite Celebrates 50th Anniversary

https://forums.qrz.com/index.php? threads/longest-operating-satellite-celebrates-50 th-anniversary. 935871/



WAIROA VISIT

A gathering of Hams and others from Hastings, Napier and Gisborne (visitors welcome) will be held at Wairoa on 8 February.

We will meet at the Wairoa Museum (Marine Parade, Wairoa, the street entry has a big red canopy) at 10am to look around the Museum, in particular at the presentation on show there from Jack Parminter ZL2OU (SK), Wairoa. (See the separate story elsewhere). We will then have lunch nearby at Gemmels Café and later visit the (ex Portland Island) Lighthouse on the Marine Pde. It is some years since we last gathered at Wairoa with our Gisborne neighbours on the patch of Dick and Joy Senior (ZL2UDE and ZL2UGV respectively).

For further information contact David ZL2DW 0274 502501.



Jock White Field Day - Save the date:

This great event is fast approaching. Mark your calendar or diary for Saturday 22nd and Sunday 23rd February. Setting up at Te Mata Peak from midday Saturday, with the event proper starting at 3pm. Finish time is 3pm Sunday. Come and have some fun join as for a BBQ eat the sausages and play radio. Some food will be provided, but feel free to bring some to share such as salads, biscuits, etc.

It is best to bring your own plates, cups, cutlery, and something to sit on. Feel free to ask me for more information or visit

https://www.nzart.org.nz/activities/contests/jwfd/

This is a Branch 13 Event however all new hams are very Welcome and are encouraged to come along.

Phil ZL2RO



Answer

Yes it is log periodic. Military yes, Germany. It is on 6x6 Man truck and is portable. The area it requires for set up and operation is the size of a foot ball field. The mast is 40m fully extended. 20 KW power capability. Total weight of truck and mast etc is 30 tonne. Operates under 35MHZ. 30 were made. Used as a signal jammer. Used against USSR, East Germany and Kosovo. Operated by special ops of the German Military Intelligence. No longer in use. However...... The name of the system is the HORNET ANTENNA. Use the net and look up Hornet Antenna.

73's Blair

ZL2BFO.

Te Puke Amateur Radio Club Inc. Branch 53 of NZART

MARKET DAY 2025

Saturday March 8th, 2025

Paengaroa Community Hall 4 Old Coach Road, Paengaroa.

Venue opens for Vendors at 6.30am

Table Prices

Pre-Sale 1.8 Table \$20.00

On The Day 1.8 Table \$25.00

Pre-Sale ½ **Table \$12.00**

On The Day 1/2 Table \$15.00

Sale time 9.30am

Door Charge \$2.00 per person.

Bank Account for Table Payment

03-0474-0030113-00

Use Your Call Sign As Reference.

For further information contact

ZL1LWR Syd Rowe (07) 533 1029 or 027 248 8664,

Email: sydrowe@xtra.co.nz

Breakfast available from 7.30am to 11.00am at reasonable prices.