



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



Branch 13's "home" (Pakowhai Hall) being officially opened (post Cyclone Gabrielle) by Hastings District Council Mayor, Sandra Hazelhurst, on 5 October, 2024

<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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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 Branch 25 Amateur Radio Club

I've just finished watching Team New Zealand win the Americas Cup for a record 3rd time, and can't help thinking where technology and enthusiasm can take groups of people, well done Team NZ.

Our Makers group are fostering innovation and collaboration. This group provides a vibrant community for individuals currently experimenting with QRP (low-power) transceivers.

Their next steps could include Satellite communications thanks to advancements in technology and the proliferation of CubeSats. Engaging with satellite communication not only enhances technical abilities but also cultivates a deeper understanding of the radio frequency spectrum.

The synergy between makers groups, satellite communications, and QRP transceivers highlights the essence of amateur radio: experimentation, learning, and community. As more individuals join this movement, the potential for innovation is limitless.

Last month we ran the famous Quiz Night, and the winner was David ZL2DW, well done David.

Next Meeting is the AGM and the Pan Pac home brew competition, this is open to almost any home made product or indeed home brew produce that you may have completed. If your entry is too large to bring along, then photos are permitted.

As it is also the AGM, think about standing for office for the coming year, or simply come along to support those that are willing to stand.

I have been busy continuing my build of a 10Ghz transceiver so haven't monitored the bands much, Signals on 20Metres however, seem exceptional a few hours around dusk.

See you all at our next meeting which will be Wednesday 6th November at 7:30, at Latham Street Clubrooms.

73 Dave ZL2MQ

HASTINGS BRANCH 13

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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).		

From the top table

Well here we are again and still the holders of the America's cup. Why have I have mention this? Well the technology they have on board the boats is very similar to what we now have or have had for some time. It is good in some ways that New Zealand still hold the cup but the day will come when we will lose it and it will go to someone else. We do remember the old days when the Americans had it and it took a lot of hard sailing and controversy by both NZ and our friends over the Tasman to take the cup off of them.

This month has been rather hard for contacts on HF because of the sun spot activity which took out the bands for a few days at the beginning and again a few days ago. They are coming back. 10 meters and 20 meters have been really good in the last few days, last Friday I worked a station in Kenya 5Z4BU again and he had been trying to call me over the top of some of the big stations from the USA. Eventually he got there and it was great to put him back into my log book again. There are few guys over there that have got together and work the airwaves with what little gear they have.

Ok, well Labour weekend is almost upon us again so if you are thinking of going away please drive carefully and put your cellphone away if you don't have hands free. There are just too many folks still driving and using their phones. You can go without it, what did we do before they came along.

Anyway every one have a great weekend and I will talk or see some of you on Wednesday night and then again in November when I will be back from Aussie after a short holiday.

Blue ZL3TT president Branch 13 HBARC



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

Cheap but-not-nasty Yagi

Keith, ZL2TAB

The genesis of this project was the need for a lightweight portable Yagi. The imperative was simplicity and cheapness. The necessity for weather-resistance and ease of assembly dictated (somewhat) the design, Ever noticed that when you want to operate a portable station in the “wilds” it always seem to rain? The overall dimensions were arrived at using a couple of design programs utilising materials in the workshop, and since both programs came out within a mm or two that was a starting point. It is worthwhile noting that there is a difference in element lengths and spacing when the elements are mounted on a non-conductive boom or insulated from a conductive one.

The dimensions are:	Element lengths	Spacing
	Reflector	990mm
	DE 496mm / half *	Reflector to DE 493mm
	D1 934mm	DE to D1 154mm
	D2 925mm	D1 to D2 370mm
	D3 917mm	D2 to D3 42mm

*The gap between the inner ends of the Driven element 10mm.

Due to availability the whole construction is 25mm electrical conduit and “T” fittings, this keeps the weight down, makes for easy assembly and keeps the coax connections and feed-point (more-or-less) dry.

Whilst the experimenting was done with “No-8” wire (of which there is no shortage of here) to verify the design figures, the final alliteration uses 6.4mm aluminium rod (1m lengths available from Mitre-10).

The through holes through the boom are 1/4” (6.35mm) and give a firm hold on the elements when they are inserted.

To get the element spacing “right”, it was necessary to push the two boom halves into the centre “T” fitting before measuring and marking. It then needs pulling apart to drill. The driven element and the feed system was the first 'bit' to be settled on. A centred dipole fed with a length of coax fitted with a detuning sleeve - or bazooka - gave a reasonable result without complexity. The bazooka is made from a length of RG58, a length of neoprene fuel line (again found in the workshop) slipped over the coax and a section of RG8u braid is stretched over the fuel line and covered with heatshrink. One way of doing this is using a crimp connector on the coax, and poking the connector into the braid (which needs to be quite 'over length') and using a tie-wire to provide a good electrical and mechanical connection, then slide the tubing down the coax and over the bit of braid left after tying it off, then roll the braid sleeve up over the tubing. Hopefully there is enough to allow the sleeve and the tubing to be cut to 513.6mm. Put heatshrink over the sleeve and then recheck it for length - it can change! For the bazooka to be effective the sleeve needs to be about a coax diameter away from the coax braid, just putting the sleeve over the coax outer sheath doesn't work very well. The necessity to make the DE collapsible resulted in a few prototypes with various levels of failure.

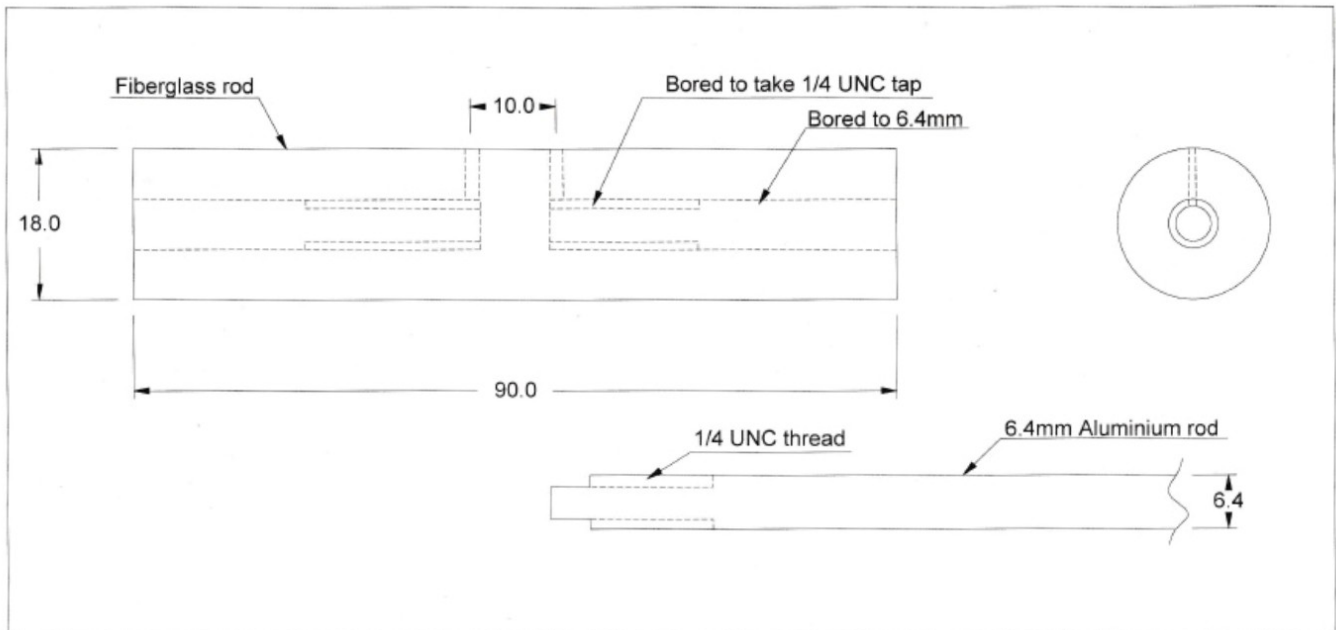
The final (working) version utilised 90mm off the top of an 18mm fibreglass electric fence standard. This is drilled, bored and tapped as in the diagram, the 2mm (or so) radial holes are where the feed line is inserted. The ends of the DE elements are threaded and screw in and effectively clamp the feed line in place. Use a coarse thread like Whitworth or UNC, sorry all you metric converts, some things are still better in Imperial!

Take care when working with the fibreglass rod, avoid breathing the dust or getting it on your hands, not only can it be irritating, it can also cause problems if the microscopic glass fibres lodge in the skin. I 'fixed' the drilling and tapping by spreading a small amount of PVA glue on the threaded end of the element and screwing it in then immediately back out again and leaving the insulator alone until the glue had set.

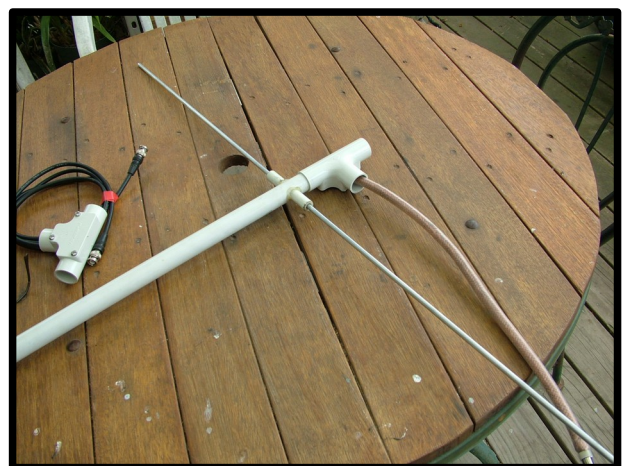
The elements were cut to the lengths shown and the result was a 2:1 SWR at 144 and 1.3 SWR at 148. Bear in mind that in operation there are going to be lots of 'things' - including the operator - in relatively close proximity to the beam so the actual SWR in the field is going to be anyone's guess. As for gain, the computer design gives 7.99dB (such precision!), from what I can deduce from use, it is around 6 - 7dB, and the beam width is 60deg or so.

The elements are 'colour-coded' for making assembly as easy as possible. In the absence of double-wall heatshrink, a smear of hot-glue on the element and 'normal' heatshrink achieves the same result. The heatshrink also ensures the elements are centred correctly.

The nett result is a collapsible array that is cheap, relatively easy to assemble, light and with modest gain.



Bazooka end



Beginning of assembly



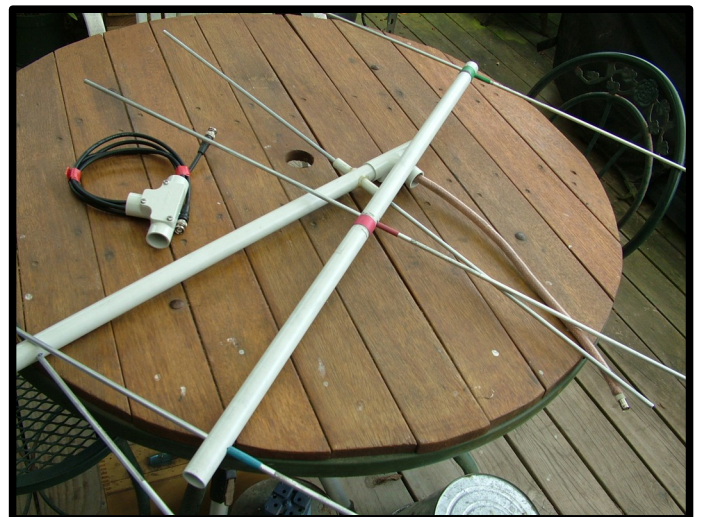
Component parts



DE mount showing cnx points



Driven element end



Elements through the boom



Fully assembled



Packed up ready to go

THE NEXT Branch 13/HBARC MEETING WILL NOT BE AT PAKOWHAI HALL

Instead we will be having a "CHB Meal and Meeting" on 23 Oct., at 6pm at Patangata Tavern, 1204 Elsthorpe Rd, Otane (or Middle Rd south if you prefer. It can also be accessed via Te Aute Trust Rd). Car pooling is the way to go so get a group together.

Bookings to David ZL2DW 0274 502501 before 12 noon on Monday 21 October please.

The Branch 13/HBARC November General Meeting will also be our AGM and Homebrew Competition (if you can't get your entry through the door then photographs are acceptable).

At the Branch 13/HBARC November meeting David ZL2DW will have some items up for offers, proceeds to Branch 13.



A view from the Taraponui microwave site

Randall ZL1NW

<https://www.inetworks.nz/taraponui-site>

The site of our '725 repeater and CD Taraponui



HAARP Link

Keith ZL2TAB

<https://haarp.gi.alaska.edu/>



FOR SALE

Offers over \$200

Metronnix PS, 0-35 volts DC, 20 amps

For internet information click [HERE](#)

On behalf.

Contact David (ZL2DW 0274 502501)



Z Bridge, It needs a home.

Home wanted (ie free) for the attached Marconi Impedance Bridge TF 936. Contact David (ZL2DW Hastings 0274 502501)



BOY do I have a deal for you!

In the photos I have a display of some components that are looking for a good home.

If you need a variable capacitor, meter movement, or a relay to finish that project for yourself, or make a crystal set for one of your kids, nephews ,nieces.

Kid down the road.

Who knows?

If you needed a display for a DeLorean time machine, I might have some of those as well.

Alright, all these parts are looking for a good home and projects to make, or to be built around them.

So if you want one of them let me know and I'll have a look to see if I've got one that fits.

All free!

As I want to spread these around the Radio community and not just have them in one spot, in a box somewhere.

So if you're looking for that part for whatever reason you can contact me.

Pick up can be at the branch 13 Club night, or at the Building Club in Napier branch building which is a second and fourth Monday nights of the month.

Thank you.

Any parts not needed will be given a stiff talking to.

Eric ZL2TSU

eric.bristow7057@gmail.com



A PROJECT FOR NEWBIES

Branch13/HBARC wishes to have constructed and installed at our "home" (Pakowhai Hall) an "80m Off Centre Fed Dipole". Look it up on Google and see if you would like to be involved in it's creation and eventual installation. You could perhaps volunteer to be a constructor in some aspect of the project..... over viewed and guided by older members. The idea is for you newbies to be "hands on involved" without us oldies being hands on ... but for us to play a mentoring roll.

If you'd like to be involved then please contact David ZL2DW 0274 502501 to work through it.

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