



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



Kynan has his new Yagi - story inside

<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

From Napier Branch 25

Last meeting was "Show and Tell", unfortunately I could not attend so no report, but I am sure this was enjoyed by those attending as it is a popular event.

This months meeting will include a talk about progress on our new constitution, ably being dealt with by Mike ZL2VM and Karl ZL1TJ.

The members also need to ratify a Memorandum of Understanding between Napier branch 25, Hawkes Bay Branch 13 and AREC, with regard to the way AREC will be run in the district going forward. The Committee have already agreed this, but as the suggestion that our AREC bank account be joined to the Hastings account I thought it best to advise the membership of the detail.

Errol ZL2IT is continuing his Makers nights and we have a few new attendees. There is a suggestion that we could add a plan to build some satellite dual band antennas to open that aspect of Ham radio to our newer members, these nights are 2nd and fourth Mondays 7pm at the Clubrooms. All Welcome. Bring your project or ideas along. I attended an AREC night last week where Luke showed attendees how to build a 2 meter antenna very simply and cheaply, very interesting.

Next general Club meeting is Wednesday 4th of September at 7:30pm all welcome, there is no formal presentation after the general meeting, so hopefully we can have another Q & A session where our new hams can quiz the more experienced, as this seems to be very popular and rewarding with some great anecdotes coming out.

I hope you all have a great Month in Amateur Radio and look forward to seeing you all at the next meeting.

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

Hi to one and all. Guess what, we are going home to Pakowhai to a refurbished hall. We are thankful to all the guys that have worked so hard to accomplish what had to be done to get the hall back to what it as before the cyclone.

Not much to report this month although I am hearing quite a lot of things on 2 meters via the repeater that should not be talked about. Peoples political views on or about other countries and also groups that have different views to each other. I guess we are all guilty of this from time to time. I was always told that the 3 main things that you don't talk about on air are politics,sex and religion as we all have different views on these three things.

Enough on that matter and to move on, some of you newbies just take a listen to what others sound like on air and I know you more that likely think you have to talk really close to your hand held but this is not the case unless you have poor modulation there is no need to hold the radio or microphone close to your gobstopper (mouth). Hold the radio at bent arms length and talk directly into the front of the radio or else talk across the front which means you are holding the radio to the side of your gobstopper and in this way you won't be over deviating the repeater as the repeater only repeats what it can hear. In other words, what you put into the repeater comes out of the repeater so if you have a loud voice the repeater will make it sound like you are yelling into your microphone hence you hold the microphone away a wee bit from your gobstopper.

Well that's my rant for this month so on Wednesday night bring your money along and be prepared to bid on what ever you might like to take home as you will be given other stuff as well so that nothing is left behind. We just love to fill you up with goodies, remember one man's junk is another men's treasure.

That's it, see most of you on Wednesday night at 19.30 hours sharp. Be there early so you can browse what's on the table.

Cheers and 73

Blue ZL3TT President branch 13 HBARC



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

How To Use A Fist Microphone

Prompted by two articles in the last Break In (Jan/Feb 2024)

- P12, "Five Common Mistakes New Hams Make" (Bob)

- P23, "Radio Operating Practices" (Doug)

I replied to both authors with the following letter/email.

Hello Doug

prompted by your Break In column "Radio Operating Practices" I offer the following.....

FIST MICROPHONE USE.

To use a fist mic, or a Hand Held R/T with built in mic., rest it on your cheek and talk across the face of the mic.....(not directly into it unless in a very noisy or windy environment).

Use a bold voice but not a loud voice. Using the mic this way contributes to a consistent level and quality of modulation, ie the best it can be. By not talking directly into the mic. recipients of the modulation are relieved of not hearing "mouth sounds" like puh or blowing on the mic.

This recommendation comes from 50 years of Ham Radio experience and 57 years of service work in the commercial Land Mobile Radio industry.

Sorry Bob Witte (P12, Break In article, Jan/Feb 2024 issue, item 2), I don't agree with you, based on the above experience.

Keep up your respective good work guys.

73, David Walker (ZL2DW Hastings, NZ)



RIBBITRADIO

At the last Branch 25 meeting Errol ZL2IT demonstrated RIBBIT RADIO.

Simplistically you have an app in your cellphone where a text type message is created. It is then acoustically (or via a cable) coupled/sent to ANY two way radio system which then sends it on to the far end recipient for a reverse procedure..... showing the text type message on the recipients cellphone.

Be aware while it is a cellphone app no cellphone service is used in the process which means you could be out of cellphone range and still send a message over (say) a 2m repeater. (Errol did this during his above demo).

Currently, what is unknown is how well it would work over an HF/SSB radio service. For further info. contact Errol.

Here is the link to the system <https://www.ribbitradio.org/#/>

David ZL2DW



Wanted for a Radio Museum

Lester Price ZL4PO , who established the Awarua Radio Museum in Invercargill, is now establishing a radio museum in Greytown and is looking for donations of any commercial or amateur equipment from 1930's to 1990's. Phone Lester on 0220424697 if you have something you'd like to donate..



Final Morse transmission from ZLW, 1993

(Sound up)

ZLW Wellington Radio final Morse code transmission ([youtube.com](https://www.youtube.com))



FYI/Curiosity

www.eastcoastreflector.com/newsletter to have surf through.

73's Blair ZL2BFO

"We'll be back"

At last Branch 13 can return to our "Home" at Pakowhai Hall (28 August 7-30pm) after the devastation from Cyclone Gabrielle. We say thank you to those who accommodated us during our time of (meeting venue) need during our enforced time away from the Pakowhai Hall..

Following our General Meeting we will hold our annual "Donated Junk Auction".... always a fun event. We look forward to receiving your (broadly) radio junk.

Please bring money or make an arrangement with Peter (ZL2HM) on the night for a "debt tab".

A celebration of our return to the Pakowhai Hall is planned for our 25 Sept. meeting. David ZL2DW Secretary for Branch 13/HBARC, Hastings



WANTED

Brief accounts of your participation (dates/years, memories and comments etc) in the weekdays "Corn Flakes Net".

It matters not if you are an old or new participant on the 'Net, anything welcome and received gratefully. Perhaps even the "listeners" will have something to contribute.

The 'Net has been going almost 50 years and it will soon be time to celebrate that.

Please send your wee story to Marilyn ZL2BOA who will collate them for a Break Out article. Thank you.



Morse Keys

(Sound up)

[A Century of Morse Code Keys \(youtube.com\)](https://www.youtube.com/watch?v=2F043ism2?authuser=0&entry=ttu)



Do you want to work in Space RF technology, in NZ?

.....read on

<https://www.spaceops.nz/about-us>

ZL2DW



More Space Radio Stuff

<https://www.mbie.govt.nz/science-and-technology/space/nzspacetalk/articles/nz-comp-any-designs-world-leading-space-radar-structure>

<https://archipro.co.nz/project/leolabs-kiwi-space-radar-central-otago-ruamoko>

<https://www.google.com/maps/place/Awarua+9877/@-46.5294722,168.379661,490m/data=!3m1!1e3!4m6!3m5!1s0xa9d2c887ba678f0d:0x500ef8684795ec0!8m2!3d-46.492307!4d168.3808456!16s%2F043ism2?authuser=0&entry=ttu>

Building a 2m 5 Element Yagi

By Kynan ZL2KAM

Recently with Wayne's (ZL2CS) help I have been building a 5-element Yagi for the 2m band. I'm aiming to make some long-distance simplex contacts with this antenna.

The process involved carefully cutting and spacing aluminium elements on a sturdy boom and securing them in place.

The hands-on experience has been incredibly rewarding. The next step is adding an SO239 connector and a gamma match.

Once gamma match is fitted to the boom the next step is to tune the antenna to 146.00 MHz. This has been a great learning experience and looking forward to making my first QSO with it.

73, ZL2KAM



Sling loading a TVNZ test caravan



1962 Sling loading a TVNZ test caravan on to Mt Edgecumbe (Alexander Helicopters).

There will be a "radio guy" involved here somewhere.

ZL2DW

Ham Radio 101: Everything You Wanted to Know About Coax But Were Afraid to Ask

Posted by Mark Haverstock, K8MSH on August 7, 2024 at 1:35 pm

Coax cable has its roots dating back to the mid-1800s, when engineers developed transatlantic cable communication. These early telegraph cables were made up of a center conductor encased in a cylindrically shaped rubber-like insulator. They had no outer shield—the seawater surrounding them completed the circuit.

The coax cable we now use was based on a design developed by Lloyd Espenschied and Herman Affel at Bell Telephone Laboratories in 1916. In the 1930s, coaxial cable was used to connect radio networks, television networks, and long-distance telephone networks.

When World War II came along, military contractors cranked out coax for the war effort. The development of polyethylene made it possible to produce cheap, flexible coaxial cables for easy and quick deployment. After 1945, military surplus coax cable could be obtained cheaply, making it popular among hams in the postwar years. It became an easy-to-use alternative to open wire feed lines.

You've Got Coax Questions? We Have Answers

Let us help you unravel the mysteries and myths behind the cable that helps connect you to the rest of the world.

What Are RG, M17, and LMR Numbers?

RG stands for Radio Guide, which was the original military specification for coax cable. The number that follows the RG was just a page in the radio guide book. In reality, these are just general descriptions of the cables available.

M17 refers to the military specifications set by the U.S. Department of Defense. MIL-DTL-17, or M17, is their current standard for coaxial cable. This mil-spec has replaced the old RG numbers and ensures that the new M17 coaxial cables will stand up to tough military requirements.

LMR stands for Land Mobile Radio, which indicates its original intended use for mobile radio systems. The 400 in LMR 400 refers to the cable's nominal diameter, which is 0.405 inches.

Every manufacturer has their own variations, including differences in shielding material, insulation, outer jackets, and other traits. Transmission loss, power handling, and other specs will vary somewhat from one brand to another. So an RG-8 cable from one manufacturer may be slightly different from that of another.

For example, the Belden 8214 version of RG-8/U has an 11 AWG stranded center with bare copper braid and an outside diameter of .403 inches. DX Engineering RG-8/U has an 11 AWG stranded center, bare copper braid, and an outer diameter of .405 inches. Loss figures and power ratings are similar, within a few tenths of a dB.

What Does "Velocity Factor" Mean?

The velocity factor is the speed at which an RF signal travels through a material compared to the speed this same signal travels through a vacuum. It's expressed as a percentage. Cables with a lower velocity factor are more lossy, but that's because they use solid insulation instead of a low-density foam or air with small spacers to keep the center conductor roughly centered inside the outer conductor. Velocity factor is also used in calculating a particular cable's wavelengths for matching or phasing antennas.

Can You Bury Coaxial Cable Without Using a Conduit?

Some coax cable is meant to be buried directly in the ground and other cables are not. If you look at the cable and find the words “direct bury” on the cable then you can bury it without a conduit. Cables that are not designed to be buried will deteriorate with exposure to soil and moisture.

Why is Coax 50 ohms?

The best coaxial cable impedances were experimentally determined at Bell Laboratories in 1929 to be 77 Ω for low-attenuation, 60 Ω for high voltage, and 30 Ω for high power.

The arithmetic mean between 30 Ω and 77 Ω is 53.5 Ω ; the geometric mean is 48 Ω . The selection of 50 Ω is a compromise between power-handling capability and attenuation. Also, 50 Ω works out well because it's close to the feed point impedance of a 72 Ω half-wave dipole, mounted approximately a half-wave above normal ground.

Can I Coil Up Extra Coax?

For HF frequencies, it's not a problem if you need to coil up small amounts of excess cable. Wrap loosely to avoid cable damage. For VHF/UHF, higher losses come into play—longer cable, more loss. The best option is to cut the coax to fit or at least buy the shortest cable you can that still fits.

Why Do I Get Better SWR by Adding Coax Cable?

The shield of the coax line can actually become part of the antenna. If you're feeding a dipole that doesn't have a balun or choke, then adding a short piece of cable will add to the antenna length, affecting the SWR reading.

Another reason is the coax can act as an impedance transformer. The impedance changes along the transmission line with standing waves. By adding some cable, you've changed the impedance to something your tuner can more easily match.

I've Got Leftover 75 Ω TV Coax Cable. Can I Use It with My Ham Antennas?

Sure, you can use 75 Ω coax instead of 50 Ω . If you're feeding a dipole, 75 Ω coax is a better match since dipole impedance is about 72 Ω . In other cases, like feeding a typical 1/4 wave vertical (36 Ω depending on radials), it would be a worse match.

Can You Mix Different Types of 50 Ω Coax Cable to Extend a Feed Line?

For example, you have 25 feet of RG-8/U and need to extend it 50 feet to your antenna. You have 50 feet of LMR-400 available. No problem.

The only downside would be losses caused by linking the cables and differences in the cable. If you used RG-8X instead of the LMR-400, you'd likely experience a small loss of signal to the antenna.

With CB Radio, I Was Told to Feed My Antenna with Multiples of a Half-Wavelength—18 feet for CB. Does This Also Apply to Ham Radio?

The 18 feet length is a myth. It might be about half wavelength in free space at CB frequencies but that does not take the velocity factor of the coax into consideration. If an antenna has a perfect match at the feed point, a half wavelength in coax will repeat that match but with velocity factors running between about .66 and .85 for most modern coax, a half wavelength in coax would be between 11.88 and 15.3 feet, not 18 feet.

The proper length of coaxial cable is just long enough to connect the radio and antenna together. There's no special length needed, no magic measurement so your radio will work better.