

THE MUSE



-----SEPTEMBER 2025-----

The newsletter of the MUSICK POINT RADIO GROUP (INC.) NZART BRANCH 86
Incorporating The Society for the Preservation of Amplitude Modulation (SPAM)
and **Green Radios On The Air (GROTA) News.**

Musick Memorial Radio Station, Bucklands Beach, Auckland. Call Signs ZL1ZLD, ZL1ZLF.
BRANCH 86 NZART NET- TUESDAYS, 7.30PM, 145.775 MHz, Musick Point Repeater (ZL1HK). All welcome!
SPAM WEB SDR Remote Receiver - <http://spamnz.zapto.org:8901/>
MPRG KIWI SDR Remote Receiver- <http://musickpoint.ddns.net:8073/>
Musick Point Website- <https://musickpointradio.org> Webmaster-Neil ZL1NZ.
AM Nets- Fridays ZL6AM (SPAM) net at 8.30PM, 3.850MHz, Wednesdays ZL1ZLD at 11.30Hrs, 7.125MHz
Museletter Editor- Martyn, ZL3CK.
Meeting- Second Sunday of the Month (Except May-Third Sunday, to avoid Mothers' Day)

NEXT MEETING- Sunday SEPTEMBER 14th @ 1pm. Coffee and tea provided.



Rob ZL4ROB and his "CrankIR" type multiband portable aerial with Harry ZL1BK working the Earthquake Net in the reserve on a recent Sunday

From the Chair

The last month seems to have been quieter than usual, although the good news is that, at the August General Meeting, the new Constitution was accepted with a few minor amendments. Martyn has forwarded the revised Constitution to NZART for their approval. Once we have that, we have to sign it officially and send it off to the Registrar of Incorporated Societies. Hopefully, that will be the end of that. This will make it our second Constitution, the first having been adopted in the 20th Century, and our new one has a more modern 'feel' to it and, I think, fits our club's modern operating methods.

My neighbour couldn't Afford his water bill, so I got him a get well card.

There has been a bit of a storm brewing about something that nobody here in New Zealand seems to have been talking about. If they have, then they have been talking very quietly because I have not heard even a whisper. I often watch videos by Hayden, VK7HH on his YouTube channel "Ham Radio DX", He recently raised a concern about the 70cm band being threatened by commercial use of the Amateur portion of the band. I am not going to try and describe the issue, as I would probably make a mess of it. Hayden has put out two videos wherein he describes the situation very well, but the long and short of it is that a satellite company overseas has procured the authorisation from (?) to test four satellites in 'our' 70cm band slice and intend to launch another 200 soon. The claim is that the band would only be used for control data and nothing else. Have a look at the two videos listed below for all the details.

Ham Radio's 430MHz Band at Risk
70cm Band threat Update

<https://youtu.be/QtuzJsbZTHU?si=UE-guGRSsCdygWuO>
https://youtu.be/exKVqoVycew?si=S6aA4oEtyUE_3kul

HEADLINE: Man in boxers leads Police in a brief chase.

Another of my YT favourites is Kevin, KB9RLW and he has put out an interesting video about a little test fixture board for use with a Nano VNA. I am sure that a few of our members will be after one of these once they have seen the video. It doesn't look like much, but it makes it quite easy to build quick little tests of a number of circuits or components, using the Nano VNA. Apart from just the board that he demonstrates, he provides a link to the print files for a tidy little case to house the board. If you have a Nano VNA, give it a look. I think that you will be glad that you do and missing out if you don't. The link to the video is:

Nano VNA component test fixture board

<https://youtu.be/tGG44ikuWog?si=x2Vg03fSKSjLa4D5>

I wear memory foam insoles to help remember why I walked into the room.

Please remember that if you are unable to make it to the club on a Wednesday morning or Friday night, you are missing something. If you need to make up for it, at least partly, get there on a Sunday for some real fun. There is always something interesting going on in the field or in the workshop and, occasionally, also in the break room. Notice that I didn't call it the coffee room because that would be seen by some (many?) as not inclusive. I say to them a very special "harden up and get over it." Seriously though, get along there on a Sunday and have some fun with us and maybe learn something new, too.

Think of how stupid the average person is, and realise that half of them are more stupid than that.
...George Carlin

That's it for now, until next month:

73, and call CQ
David, ZL1DRV

Musick Point News

New Constitution- this was passed with some amendments, as per the attached minutes. The altered constitution has been submitted to NZART for their approval.

NZART 100 years Conference 2026- ZL1DRB and ZL3CK are on the organizing committee and are expecting to be involved in potentially welcoming visitors after or during the conference, (depending on interest) and also the vintage radio display at Waipuna lodge where the conference will be held over King's Birthday weekend next year. It is noted that visits to Musick Point were on the program for the 75th conference in 2001.

Ongoing work to improve the appearance and general tidiness continues. **Graham ZL1TOF** has completed repairs to the felt carpeting and the stairs now look as they should once again. No doubt there will be more items to be attended to, thanks Graham.

Dave ZL1DL soldiers on with regular vacuuming and cleaning (He's getting new callsign ZL1SADIE!). Other regulars also help out with the many little jobs that help make the place look loved!

The **ICOM 7700** has been successfully repaired by **Dave ZL1DL, Harry ZL1BK and Keith1BQE**. Great team effort chaps, we need that rig! Now the rotator seems to have stuck again....

The **Museum room** is looking a bit more tidy with labelling of items now viewable, previously hidden under piles of other treasures. It is a wonder that the glass tops of the cabinets have survived the weight of some very heavy items placed upon them. It seems that the valve collection was originally from Himitangi Post Office shortwave radio station, and I'm guessing the display cabinets came from there too. We have moved the cabinets around to enable access to them and also ease the flow of viewers in the room. The only Non- Musick Point Items still displayed are the ZC1's and the EDAC, representing AREC.





The **morse key collection** (picture below) is now labelled and securely housed in one of the cabinets. **Neil ZL1NZ** has provided some notes which will be laminated and available in the museum to read. The overflow of mainly non-Musick Point relevant artifacts is now tidily stacked in the Manager's office at the south end of the ground floor. This is viewable if anyone wants to look.



On the topic of Morse, Keys here's a rather nice "Bug" key brought in for us to admire by Rob ZL4ROB. It is resting on its own special wooden box,



AFN at Musick Point-

As the "Earthquake Net" (Alpine Fault Net) has been gaining popularity, we have taken the opportunity to set up portable on the last Sunday of the month to participate. As we are usually at the station on Sundays, it only involves being there a bit earlier to be on the air by 9.30 AM local time. It also gives opportunities to test out your favorite portable aerial. And station combination. There were over 50 check-ins last month. See AFN.org for details of the nets and philosophy- which appeals due to the simplicity of just 'get set up and do whatever is necessary at the time'. The primary frequency to use is 7.115KHz SSB. **ZL3CK** took his much-travelled Elecraft K2 and Pack-12 short vertical aerial and was successful in working the net station in Christchurch on 10 watts. The opportunity to try out various combinations of counterpoises (or none) with the signal received on Marahau SDR to compare. Also **Harry ZL1BK** had his VNA available and this is the result-



VNA of the "Pack 12" portable aerial set for 40 meters. Nice resonant point at 7.120 MHz

CCA - It's OK If They Tell You- From the "How Convenient" files of ZL1DL...

Everyone loves a bargain, don't they? So when I needed a box of CAT6, I was stoked that the wholesaler had one line that was around \$100 cheaper than others. Thinking that the price was probably owing to the green coloured cable sheath (as in who wants green CAT cable?) I bought a box. Turns out the bargain was not entirely related to the sheath colour.

Getting the individual wires from a CAT cable into the correct positions in a keystone socket takes a little manipulation of the wires, sometimes back and forth. In getting the wires sorted, I managed to break one. Clumsy, I chided myself and cut the wire ends off and started again. And surprise, again I broke a wire or two. On a third attempt, being very gentil with the wire handling, I succeeded in the punch down.

That was many years ago, and I was green (pun intended) to the problem of undeclared CCA. Being green I can understand – I did buy green cable... but what is undeclared CCA?

Copper is widely used in cabling, but the increasing price of copper has driven cable manufacturers to investigate cheaper alternatives. One useful option is aluminium. It's cheaper and lighter than copper, but it has higher resistivity. Despite the higher resistivity, it is used extensively in large gauge, long run cable requirements (especially when weight is a consideration). It does however need specific gastight termination lugs – that have an aluminium barrel for the cable and a copper end to attach to non-aluminium connections.

In small gauge work, terminating copper (soldering, screw fixing, punch down, open crimping etc) is a no brainer. But these methods are not suitable for aluminium. However, if we had an aluminium conductor with a layer of copper over it, then we potentially have the advantages of both. Enter Copper Clad Aluminium (CCA).

The main advantage of CCA is cost; substituting aluminium for copper is a significant saving.

There are three main disadvantages of CCA:

- 1) It has higher resistivity compared with pure copper. (requiring larger sq area cables compared to copper, for a given current capacity)
- 2) CCA ductility is less than that of copper (ductility relates to the ability to flex without breaking)
- 3) There is no standard for the percentage copper used in CCA

The most important consideration to Hams, I would suggest is #2. Much cabling in the ham world is not fixed. Flexing a CCA cable in the way one expects is acceptable for a copper cable, might lead to premature failure. The problem is there are suppliers that choose not to declare that they are supplying CCA instead of pure copper. And to be fair, there are also reputable manufacturers that provide very specific details such as copper percentage etc in their CCA cables. A good CCA might have 15% (or more) copper.

One of the worst examples of minimal copper CCA I came across was some fine stranded wire of around 12-gauge total. I stripped an end in preparation for attaching a crimp lug and stroked the strands into a slight twist to get them aligned. It was then I noticed a silver glint in the wire. Strange I thought, so I manipulated the wire a little more, and as if by magic more copper turned a silver colour. It was literally a case of "It come off in me hand, Guv". That would be one of the worst examples I've seen – the copper must have been no more than a few microns thick. Another example I tested (sold as pure copper cable), had a mix of copper and CCA strands. Abrading the strands resulted in only some turning silver coloured!

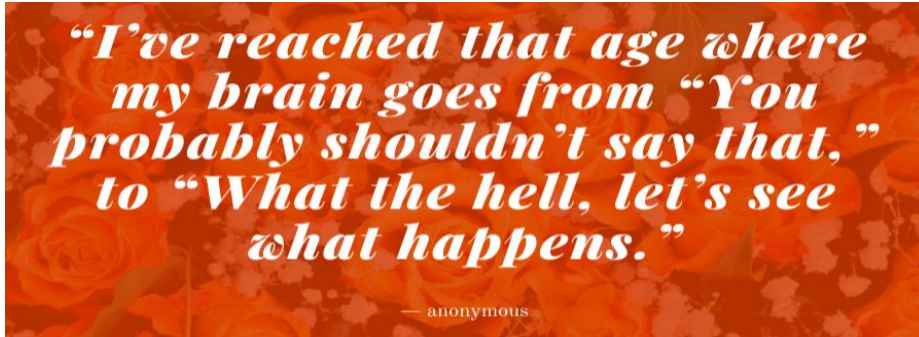
And apparently coax is not immune from the undeclared CCA problem. I was told about some RG174 that was extremely prone to centre conductor breakage – not what you need for your SOTA kit. There are some small coax cables that use a Copper Clad Steel centre conductor, but this is for overall mechanical strength.

So- how to tell if your cable is copper or CCA?

- 1) Some better manufacturers will stripe the cable with the letters CCA.
- 2) Apply a flame to the wire strands. Copper will heat up and glow red, aluminium will melt and ball up or fall off

- 3) Try the flexibility test, bending strands back and forth. Aluminium typically breaks in around 4 bends

CCA can be an economic alternative to 100% copper wire, but you do need to consider if your cable is going to be subject to ongoing flexing.



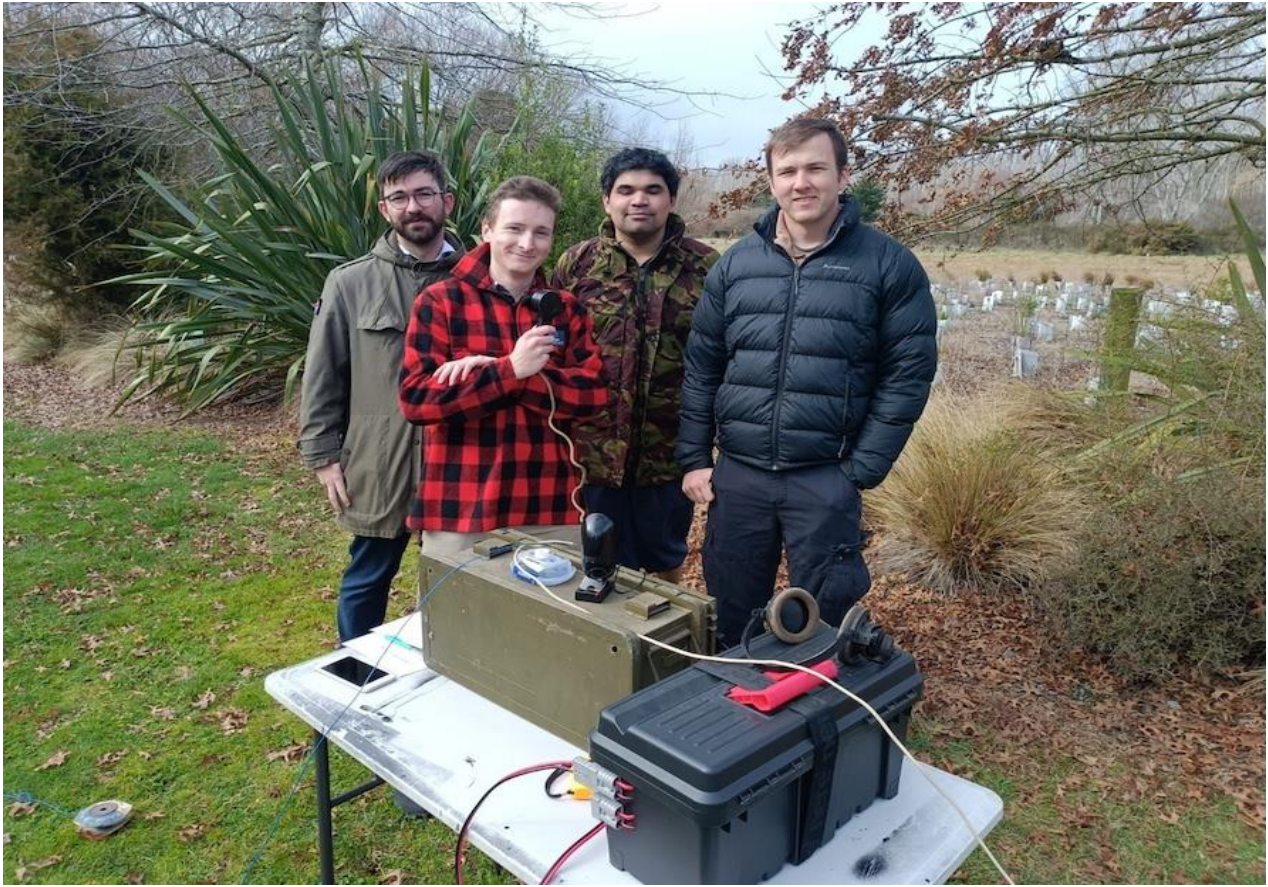
Green Radios On The Air- July report from Kelvin ZL3KB-

Another chilly winter GROTA activity, it’s surprising just how many people are prepared to brave the cold for the sake of a few scratchy QSOs. This time we headed back to the plains of North Canterbury; James ZL3KDOT has obtained a ZC1, so he gathered a bunch of friends, including ZL3JDY, and setup in a reserve with a wire slung into a tree. That means we had five ‘under 30-yearolds’ and only three over 30! Definitely over 30, Peter ZL3LTP was using his recently acquired and working WS48, so by my count, the GROTA group now have sixteen working 48sets all using the GROTA battery, with more batteries now in production. In our experience, these backpack sets seem to have better success with contacts on 7MHz when compared with the ZC1, even with its short rod aerial, and we don’t really know why? More technical investigations needed! Aidan now had his WS62 working well, and I was using the SRA13 radio, so we did a quick comparison of 7MHz versus 3.6MHz using the same short rod aerials, and the 3.6MHz contact was much better, proving once again that groundwave really struggles at 7MHz. This also proves the enhancement in groundwave propagation outweighs the lower antenna gain at 3.6MHz. Both stations were <1W into 10’ rods at a range of 4 miles.

Des ZL3AK had problems with his 48set, it was taking ages for the PTT relay to drop back to receive. On investigation in the workshop, we found the relay had become magnetized over its 80year life. A simple application of a 9VAC supply and a 5K variable resistor to the coil soon had it demagnetized and dropping out correctly. You see, if nothing went wrong, I’d have nothing to write about!

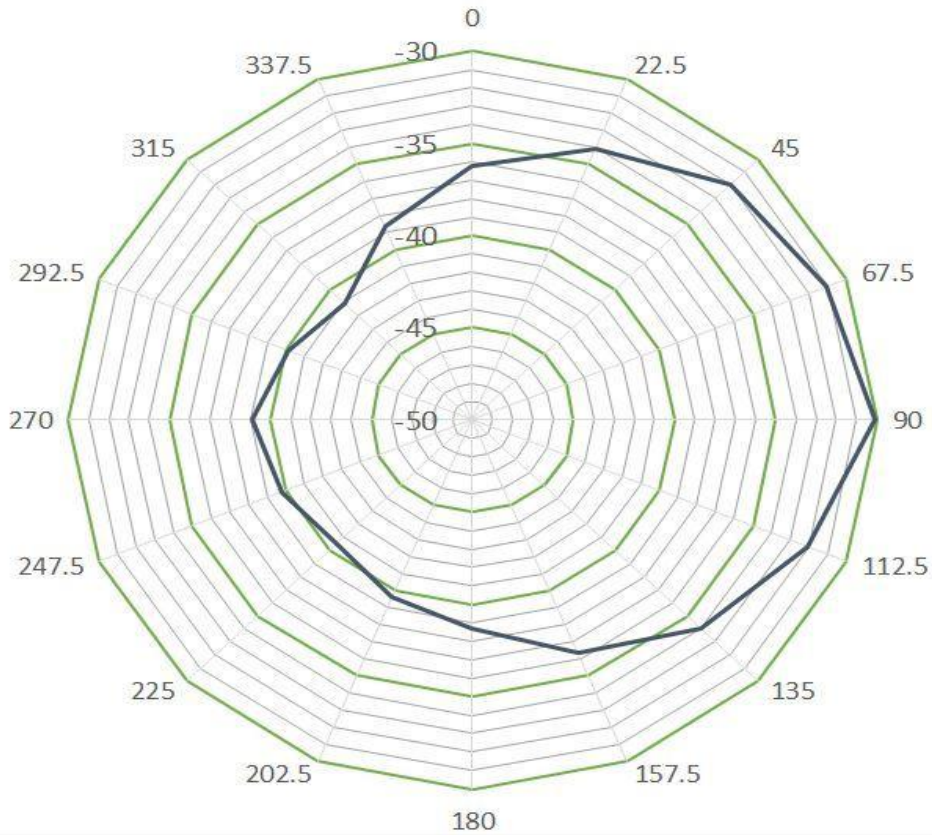
Last month we submitted simulation results of the effect of a long counterpoise wire with a 48set, showing approx. 10dB radiation pattern enhancement in the counterpoise direction. As a comparison, we have now made some real measurements using a spectrum analyser, and here are the results. Lo and behold, 10dB enhancement! By my reckoning that is three times the range. However, experience shows this is not always the case, and sometimes the counterpoise wire makes things worse! Don’t you love radio? Till next time, keep the radios warm!

Kelvin ZL3KB



ZC1 team, ZL3KDOT, ZL3JDY and friends

Radiation pattern, 7MHz, 10' vertical rod, with 24' counterpoise wire



Radiation pattern for the No.48 set, counterpoise laid to the right.

Note- This was obtained by real field measurements, compare with theoretical pattern as reported in last month's MUSE).



Station Radio A13 in the wild.

Auckland Transport publicity dept?

**You see those vehicles taking
an alternative route over there?
We need to start some road
works over there too.**



Seen at the Gordonton Market Day 2025 (Hamilton Branch NZART)-



Kevin ZL1KFM extolling the virtues of an aerial..



Rob ZL4ROB very happy with another bargain from Kevin!



A few of the (SP)AM'ers seen at the market day. From (L) Martyn ZL3CK, Bruce ZL1BLB, John ZL1AUB and Tom ZL1TOM.

WANTED- A&W McCarthy Morse Key-

'Dear Martyn,
I finally found the NZ bug made by A&W McCarthy and it is in good condition.
Now I am looking for the A&W McCarthy handkey.
I can swap or buy if possible.
Can you help me there please?

Best Regards, Herman VK2IXV hermanusw@gmail.com

Note- Hermann is a retired ship's radio operator and has written articles for many years for the Australian Old Timers News, (OTN), an excellent publication the editor receives and puts copy in the tea room for your interest.

Free Amateur Radio Buy, Sell and Wanted website-

See “ZL Ham Ads” at- <https://ZLham.net.nz>

“The Machine”, the FAMOUS MPRG Blog is found at- <https://MPRG.zlham.net.nz>



Ferrite & Iron Powder
cores available at:
intelec.nz/passives

Your Advertisement Could be Here!

Contact the editor if you have something to sell or something you need.

**Minutes of the General Meeting of the Musick Point Radio Group
August 10th, 2025 Commenced at 1305.**

Present- ZL1DL, ZL1DRV ZL1KFM, ZL1MRT, ZL1OJ, ZL1TOF, ZL2MOH, ZL3CK, ZL4ROB.

Apologies- Nil

Minutes of July 2025 G.M.

Accept as distributed-

Moved-ZL1DRV. Seconded-ZL1TOF.
Carried unanimously.

Matters Arising- Nil

Finance- ZL1DL-

Financial Statement for June – Total funds in bank-12.326.93

Surplus YTD- \$666. (Summary attached to minutes)

Repeater licenses \$200 paid. Subs received to date- \$1000, =25 members.

Insurance account expected as soon as Sec returns application form.

Accept financial statement -

Moved-ZL4ROB Seconded-ZL3CK.
Carried, unanimously.

Correspondence-

1.Request from Martin Rees for Jag and Model A club visits- Meeting was not keen for multiple large groups due to the building's restriction, time taken to conduct tour and also need agreement with Spark. ZL1DL to enquire of Spark in first instance. ZL3CK to reply to this effect. Note- Since the meeting this has been approved by Spark for the Jaguar Club (only) to visit. Further correspondence suggested tentative dates of Sunday 22 Feb or Sunday 26 April.

2.Insurance proposal discussed, agree to go ahead ZL3CK to return form accordingly.

3.JOTA request- Not suitable as no toilet or other facility can be offered and approval from Ngai Tai and Spark would be required.

General Business-

AREC activity- ZL4ROB- portable aerial erection trials as activity for the month..

New Constitution-

A draft new constitution has been circulated for discussion and was subjected to careful scrutiny by the meeting.

Items discussed and amendments as agreed to by the meeting-

Para.4-“Alteration of Constitution”- delete ‘who hold a current amateur operator’s certificate’.

Para. 6- Voting at meetings—Delete all after ‘except that on matters concerning the constitution...’ etc

Para 7- (b) line 7- delete “who hold a current amateur operator’s certificate, and are” .

(d) change “shall” to “may”

(e) change to read “Elected officers shall hold office until the next ...etc.

(f) first line- delete “or office of auditor or reviewer”.

Accept constitution so amended-

Moved- ZL3CK Seconded ZL4ROB
Carried unanimously.

Meeting concluded at 1430.

Minutes taken by ZL3CK.