



BARG News

Ballarat Amateur Radio Group Inc. #6953T May Monthly Newsletter

Friday 29th May @ 7:30pm

Virtual Meeting via Webex

All Welcome



Contacting us You can write to the club at the address below, or e-mail the secretary

> The Secretary : B.A.R.G. Inc. Box 1218 Mail Centre Bakery Hill Vic. 3354

Or E-Mail : vk3bml@barg.org.au

We're on the web www.barg.org.au

Presidents Report

Welcome to the May newsletter. Despite the lock down the club has still been quite active. The last meeting was held via video conference, which was a new experience for many. Around 20 members joined and participated in a general meeting followed by a quiz of general radio knowledge ron by Bob, VK3BNC. While the lock down has eased, it looks like it'll be a couple of months before were back meeting face to face.



Ian, VK3YFD had an idea that The Courier might be interested in an article about how Ham radio is a hobby that is still very active, despite the lock down. A quick call confirmed thee was interest, so Ian VK3AXH volunteered as the subject. A short phone interview followed by a visit from the photographer and the article was ready. Following Monday and VK3AXH was front page news. Great work both Ian's. Sadly the 6m repeater, VK3RWU suffered a power supply fault, and will be off air until riggers can get back up there to fix it. So the 6m net has been suspended.





https://www.thecourier.com.au/story/6743273/ tuning-in-across-amateur-radio-all-aroundthe-world/

| DATE | NAME | CALL | NAME | CALL |
|-----------|-------|--------|-------|--------|
| 28-May-20 | Chris | VK3QY | Paul | VK3TXR |
| | | | | |
| 4-Jun-20 | Paul | VK3TXR | SCOTT | VK3MCL |
| 11-Jun-20 | Scott | VK3MCL | Craig | VK3KG |
| 18-Jun-20 | Craig | VK3KG | Doug | VK3DRE |
| 25-Jun-20 | Doug | VK3DRE | David | VK3KQT |
| | | | | |
| 2-Jul-20 | David | VK3KQT | Ian | VK3AXH |

80m Net Roster. Thursday @ 8 pm on 3.608 MHz

VKS-737 Radio Network 2020 Codan Envoy Raffle

The Australian National Four Wheel Drive Radio Network, otherwise known as the VKS-737 Radio Network is in the middle of yet another Codan Envoy Raffle, with tickets available until the draw on Friday 12th June.

First prize is a Codan Envoy X1 HF 100 Watt Radio with your choice of autotuner, valued at nearly Five Thousand Dollars. Second and third prizes are metal detectors from Minelab.

The radio comes pre-programmed with all the VKS-737 Radio Network frequencies. For Licensed Amateur Radio Operators, the radio also comes programmed to VFO throughout the Amateur HF Bands. All controls are on the microphone.

If you want to know more about the Codan Envoy, go to our Network's website (VKS737.radio), hover over the BULLETIN tab and click on NEWS. You'll find our review of the Envoy in there.

Tickets are just Five Dollars each and proceeds will assist the Network's vital function to travellers throughout Australia. You don't have to be a subscriber to the VKS-737 Radio Network to win but the raffle is not open to anyone overseas.

Yes, I know that you are stuck at home until this Nationwide emergency ends but that gives you heaps of time to work out where you might mount your lovely new Envoy should you be the lucky winner.

Go to our Website (vks737.radio) for details. If you need to use the Australia Post Snail Mail service to order your tickets, make sure to mail the form well before the end of May and please, remember to include the postage cost. We don't want to have to give over a fifth of what we raise to Australia Post; we'd rather use that for our travellers' benefit.

Make sure you get cracking if you want a chance.

Cheers... Robert (VK3ARM)

The VKS-737 Radio Network is a Public Benevolent Institution Established in 1993. Committed staff and volunteers provide information and support for Australia's remote travellers on land, at sea, or in the air.

This week has seen transmissions on 137khz, 2200m commence with some pleasing results. The major problems at the frequency are the antenna and backyard space, a quarter wave roughly 1100 metres, I don't think that even Ron VK3VBI could help with that amount of space! With antenna efficiencies at perhaps one percent if you're lucky every effort is required to bolster the final result. Requiring large loading inductances and using around 10-15 watts I was not confident in any great DX however so far have been able to WSPR stations in VK3, VK2 and VK4. As a boy I played with crystal sets but never thought I would be transmitting on even much lower frequencies. It's been fun so far so will see how it pans out. It is with regret that John, VK3AIG (sk) only just missed out assisting me with final testing.

Bob VK3BNC.

VHF and Above for May 2020 by Ian, VK3AXH

With the weather getting colder as we approach the winter months propagation on the higher bands is starting to decline. That said there are still occasions when some contacts can be made with some tropo propagation.

There have been a few examples of this during this month with several openings towards Adelaide and the North West and also towards Gippsland and Tasmania.

Peter VK5PJ near the Barossa Valley is the most active station heard and always puts a good signal into our area as well as to Steve VK3ZAZ in Hamilton.

Most mornings there are the regular stations on the bottom end of 2m with good numbers from Ballarat, Camperdown, Cobden, Hamilton, Portland, Carramut and possibly others as well.

Andrew VK3TOT has been busy checking the propagation of both amateur bands and FM broadcast stations with some good results.

A new version of WSJT-X has been released with some notable improvements using several different modes. I'm not sure if this is the reason from some increased activity from the Ballarat area but note that VK3TXR, VK3BNC, VK3OAK and no doubt others have been active using WSPR. Paul VK3TXR reported signals from VK4 on 6 metres. This band can be quite active at times during the winter months with sporadic E's however you have to be there when it happens.

I have just received a report that two European stations have completed an EME contact utilising the new version of FT8. They claim this is a world first and is acknowledged by Joe Taylor who was the founder of this suite of digital programs. Claims that this will enable more contacts to be had in a given time frame during EME contest is seen as a great advantage.

Antenna Project

Progress is slow at present with supply of the aluminium elements some of which have to come from New Zealand. I keep in contact with the supplier but still getting the same message. Hopefully things will get moving again shortly as this will be a good winter project.

VK3AIG John Kennedy Silent Key

It is very sad to report that our esteemed member John recently passed away. John was a member of BARG and a good committee member serving as President in 2012 as well as being Secretary and Treasurer for the club. John was a quiet man but was active in many areas of amateur radio. His interests ranged from low frequency band operation on 474KHz through to 10GHz in the microwave bands. He also liked CW operation and could often be heard using this mode on HF. John also was involved in digital modes with slow scan TV and WSPR. He was also a member of RECOM which was a communication network for Red Cross Victoria. During emergencies a HF station would be set up at an evacuation centre where personal information was collected from affected people. This was then transferred to Red Cross headquarters by HF radio using digital transmission where it was recorded in Melbourne and the National coordination centre if required. Some notable events included the Grampians bush fires and the Trawalla train crash where many injured people were transported to the Ballarat Base Hospital.

John worked in the Engineering section of Victoria's SEC in the live line area. One aspect of his work in the field was to resolve mainly hardware issues that caused broadcast and television interference issues particularly in the analogue Television days.

To John's wife Margaret and his family BARG extends our deepest sympathy.

VALE John Kennedy VK3AIG

6m J Pole Antenna

Hi BARG Members and Friends,

Attached is a simple 6m antenna. There is no text or story line on the page but all necessary sizes and dimensions are there. I did start some text but cannot find the book with it in and not same book as this diagram. I have built two of these and they are basically intended for use in the field and can be reassembled very quickly and accurately to the design frequency because the two small "collars" shown on the bottom section of the two long pieces {1442mm] act as a limit piece once the frequency set up is complete. They may be dispensed with if the operator wants but I would advice not. For a permanent home antenna then the sections may be pop riveted together.

| 6 | MJP | le Antenna | VK3KG |
|-----------|-----------------|----------------------------|--------------------------------|
| | | | |
| Section | 1442mm | Design Free | 52 Mhz |
| Č | | 2= 5 | 0-//M |
| | | 142 - 1. | 442M |
| Color | * | | |
| | | | |
| Section | 1442mm | | |
| C 46 | * | | |
| | | | Two holes drilled |
| Section | \$ 444 to min | | through Top tobalb |
| A | | | 2×20mm holes |
| 1 | 1 4 | Tap Point * | Firing by Rivetts on bolts. |
| | * * | 200-300mm | |
| Base | 80mm | | |
| Section | Approx | | |
| Section | 110mm | | |
| 110 | 4 | | |
| | | | |
| Materials | : Section | À 20mm Altube 1.7mm | wall Quarter Wave Stub. |
| | Section | B 16mm Al tube -tel | escopes into Sect A |
| · | Sectio | n'C' 13mm Altube - tele | escopes into sect B |
| | Base section. | Al boxsection 80 x 160 | 0x30mm. |
| | Collar 1. Small | 16mmtube-10mmlong-Po | privet/Stapped at "sweet spot" |
| | Collar 2. Smal | 20mmtube-10mmlong-R | wett/topped at sweetspot |
| Note: | | | |
| Section | s Band C ba | oth extend about 150mm int | onext section |
| Collars | land2 used | to locate and fix for de | sign frequency |
| Section | sA&B are | slotted 25mm of their tops | allowing for clamping |
| Clan | nps used are | Small hose clamps with | wormdrives. |
| * | | • | |

For use in he field you release the two small hose clamps holding section B & C and withdraw the element and then turn sect B around and feed its total length back into section A as far as the feed point at T if there is a bolt or rivet there. If an external clamp was used to fix the feeder then the element should go right down onto the collar. Section C element is then inverted and fed back down the inside of section B & C as far as possible. BEWARE that you carefully collect the two small Stainless steel hose clamps and tighten them up on the protruding sections out of the base sect A.

This means that the remaining length of the antenna is about 1,5 metres and much more easier to pack and carry away. I have only left about 110mm of the 20mm tubing below the base section as that then fits into my telescopic mast section but others may wish to have this longer. This antenna doesn't need to be mounted or isolated from a metal structure as the RF earthy point is the base section.

The antenna is a Half wave radiator which is fed from a quarter wave transmission line [section A] and from theory if you take a quarter wave line and short one end the impedance seen at the other end will be infinite. Conversely with the two quarter waves connected such here they make a half wave section with a low impedance at the centre near the collar #1 then the impedance at either end will be very high. Where the transmission stub line meets the end of the half wave section the two impedance's should be matched.

The coax cable is then fixed at a point up from the zero impedance at the Base section to a match that represents 50 ohms of the cable. I used two aluminium clams at the feed point attached to the coax and slid the two up and down while noting the SWR and looking at a remote receiving antenna comparing sig strength in the far field. Once I was happy that I had the best spot I drilled and fixed a SS nut and bolt with solder lug to the coax. Pop rivets could also be used. The exposed open end of the coax must then be sealed to prevent moisture in the line. On one of my 6M J poles I have used a round electrical conduit box with three ports. The 20mm section will pass thru the box and can be made to slide up and down while finding the correct taping point.

The third or horizontal port allows the coax lead to pass across to the other 20mm section tube where a second round PVC box is used. I have then mounted in my case a BNC female socket that allows the cable to be removed easily when packing up. A SO239 or type N would also fit. For a permanent installation the coax may be brought in thru the PVC by a tight fit and then sealed up as the Al/PVC sections are also sealed with a suitable fixer.

Although six metres is a "seasonal and temperamental band some are now using the few FM repeaters that exist there or use a vertical to monitor for band openings until propagation allows a good working signal. The openings can come and go so quickly they are never seen or heard by most, however when the band opens then it doesn't seem to matter if you have a vertical or a horizontal antenna in service. You can work the world. And then you wait and wait.

I hope that this antenna helps some one have a go and make their own and listen around for the band to open up. Mine sits just on the top of a fence/gate post below my tower and works well there. If anyone wants to see it am happy to oblige. It has been into the club once or twice to show member.

Craig, VK3KG

SILICON CHIP REVIEW. MAY 2020

FEATURES & REVIEWS..

- P12 Stealth Technology. Applications in defence for making equipment and people less visible on the ground, air or sea.
- P62 New wideband SDR devices. New dongle for \$30 and works up to 1.75GHz. Follow up article next month.
- P84 Review: a 13.6GHz Sig Generator for just \$250.
- P100 High performance Tweeter speaker measures 6.7 x 4.7mm.

CONSTRUCTIONAL ARTICLES.

- P 26 Learn how to ANODISE at home. Make your own panels.
- P36 H-Field Transanalyser for AM radio alignment or service. An interesting variation to sig generator coupling into radios for alignment and adjustments, How to apply the knowledge and skill in next edition.
- P68 Build an Altimeter for the car. Large screen is easier than using your phone while driving.
- P88 Make your own Reflow solder oven Controller Part 2.

YOUR FAVOURITE COLUMNS.

- P46 The Serviceman's Log. Dave has some interesting faults to fix and assists readers with others.
- P79 Circuit Notebook. 1 3 3 Output power supply using Plugpacks.
 - 2. Variable Speed reversing LED chaser.
 - 3. Proximity warning for the blind.
- 4. Simple Emergency charger for small batteries.
- P96 Vintage radio. The Toshiba 9TM-40 "robot " radio.

EVERYTHING ELSE:

- P2 Editorial Viewpoint. P108 Silicon Chip Online shop.
- P4 Mailbag & Feedback P111 Market Centre.
- P61 Product Showcase P112 Advertising Index.

P105 Ask Silicon Chip.

Happy reading until next month which is nearly here.

73 Craig VK3KG