



Founded 1979 Incorporation No A6677 P.O. Box 692, Shepparton 3632  
September 21

**VK3RGV repeaters and transmitter operating frequencies Mt Wombat**

53.725MHz (-1 MHz), **In Service** 146.65MHz (-600 kHz), **In Service**  
438.2MHz (-7 MHz -D-Star), **In Service** 438.650MHz (-7 MHz 91.5 Hz tone), **In Service**  
438.9MHz (-7 MHz - DMR), **In Service** 439.775MHz (-5 MHz), **In Service**, IRLP (node #6990)

476.475 MHz (+750 kHz) CB Repeater WBT03 Channels 3- 33, **In Service**

VK3RDS, 438.7625 MHz (-7 MHz DMR) **Shepparton on test @ VK3YNV QTH**

Mt Major VK3RDU, 146.850 MHz, 439.875MHz. Mt Bruno VK3RWC 147.325 MHz (-1.6 MHz 123Hz)

Access to most analogue repeaters is by sub-audible 123 Hz tone or noise/carrier mute (less sensitive).

Your TX offset shown in brackets

Club informal on air get togethers - Wednesday evenings. All welcome. Club call sign VK3SOL:-

2mx repeater 8.00pm 146.650 MHz,

3.63 MHz SSB ± interference 8.30pm.

The vintage radio club have a sked at 11.00am Sunday on the 2 mx repeater. All welcome.

Meetings the first Saturday of the month from 10 am for informal chats and technical talks. A BBQ follows (a gold coin donation). Business meeting 1 pm (except January when no meeting occurs) at Flexible Learning Centre, 18 Channel Road (250 metres from Archer Street), Shepparton.

Variations in these times, days and location are normally notified in the preceding newsletter.

**Meetings occur on the first Saturday of the month at 1pm. Due to the pandemic, check the website for last minute changes whether at the club rooms or via radio. If radio, it will be conducted on air via our 2 metre repeater and Peter VK3AXI will officiate as President.**

Website – [www.sadarc.org](http://www.sadarc.org) or [www.sadarc.org.au](http://www.sadarc.org.au) Face book Page - Shepparton and District Amateur Radio Club Direct Link: <https://www.facebook.com/groups/481867453084459>

Note: Want to get your licence? SADARC has examination assessors, contact the secretary for details.

**DISCLAIMER:** - No guarantee is given as to the accuracy of information in this newsletter.

**Warning:** - There is a danger of electrocution or injury when working on electrical/radio gear or working at heights doing antenna work. You do so at your own risk. 27/9/2021

President: - Peter Rentsch

VK3AXI

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Vice-President: - Barrie Halliday

VK3KBY

Secretary: - Andy Ashley

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Assistant Secretary: - Geoff Angus

VK3ZNA

Treasurer: -Andy Ashley

VK3AJA

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Membership Sec: - Andy Ashley

VK3AJA

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Webmaster: - Ray Gardiner

VK3YNV

[ray@etheira.net](mailto:ray@etheira.net)

Communications Managers (External Events):- Bruce (VK3PNG) & Darren (VK3HEN) Glasson

Tech. Committee: Geoff VK3ZNA, Ray VK3YNV, Josh Gardiner & Rodney VK3UG – with power to co-opt.

Newsletter: - Rodney VK3UG (Editor) [rodlynn6@bigpond.com](mailto:rodlynn6@bigpond.com) , Andy VK3AJA (Distribution)

## Presidents Report September 2021

**Yes, I know it's late but don't blame Rodney. He only received my report late. Why was it late, well I have been attempting to understand if we can have a face-to-face meeting again? I am still not sure, so at this time we will plan to have one but please keep your eye on the Website for last minute changes.**

Thank you to all those who called in for our last meeting. I am really happy with the number of calls we receive, and I believe that we have a real advantage being Amateurs and the ability to keep in social contact with one another, especially those who have a common interest.

During September I received an email from a German Amateur enquiring about Radio Australia and its history. The organisation he belongs to wishes to print some information on RA. I have passed this email onto the Technical Committee and Rodney will give us more information at the next meeting.

Don't forget our AGM in October. As I said last month I am not prepared to stand as President again. I have had 10 years and it's time to give someone else a go with some other contacts and ideas. Please consider taking on a role within the Club. It is an opportunity to further develop the Club in the big scheme of things. The President's role is a very important role as they set the direction for the Club. The direction of the Club is to be all inclusive without pushing any band wagons. I would like to think that that is what I have endeavoured to do. All parts of our hobby are important, but it is only natural that we have different specific interests.

Don't forget also that Subs are due. **Please pay to Secretary, Andy as soon as possible. PLEASE remember to fill in the Membership form and return it to Andy.** This is most important for our Club records and for fulfilling our legal obligations with the appropriate authorities.

Hopefully, we can all catch up soon one way or another.

Cheers for now.

Peter Rentsch  
President

## CLUB CALENDAR

**2<sup>nd</sup> October 2021 - Regular Meeting and AGM – Vision Centre BBQ, all TO BE CONFIRMED**  
**Check Website for latest information.**

6<sup>th</sup> November 2021 – Regular Meeting

4<sup>th</sup> December 2021 – Christmas Meeting with the Vintage Club. Venue to be decided.

# SADARC MEETING MINUTES

4 Sep 2021 on air 1:03 pm

In Attendance: VK3AXI Peter, VK3FALN Alan, VK3UG Rodney, VK3BPH Kevin, VK3GEK Graeme, VK3GSR Geoff, VK3OV Pat, VK3YYY Ian, VK3ZNA Geoff, VK3EIR Joe, VK3ED Dallas. VK3AO Alan, VK3TJS Jacek, VK3ASK Peter, VK3ZYZ Denys, VK3KBY Barrie, Stevo. Apologies: VK3TEX Les, VK3PNG Bruce, VK3ZE Huntly.

Minutes of last meeting, Read by Peter, Moved by Peter, second by VK3UG Rodney. All in favour. In: Memberships. Consumer affairs reminder.

Out: various misc. emails.

Moved by VK3ZYZ, second by VK3GEK Graeme, all in favour.

Reports,

Financial: Moved and Read by VK3AJA Andy, second by VK3BPH Kevin. All in favour.

Technical: Read by VK3UG Rodney, nothing to report, all is working as it should. VK3GSR Geoff reported 6m repeater is working fine. VK3EIR Joe mentioned 70 cm repeater has low signal at his QTH. He asked if any changes are planned. He would like to use IRLP. Rodney has answered nothing planned at this stage. Moved by Rodney, Second by VK3EIR Joe. All in favour. VK3YNV Ray has appeared! He mentioned Stevo will be listening and to pass on his regards. Josh has mentioned he has a RF path plot to VK3EIR home, seeing a mountain is in the way. He will post the plot on forum.

General business: AGM was mentioned by VK3AXI hopefully can have face to face? Perhaps we need to think about alternatives to face to face?

VK3UG Rodney mentioned due to Covid-19, many clubs are suffering and that we are doing well. That we should all make sure the club keeps going with its success.

VK3AXI Peter mentioned the forum and how helpful it is. He also said he has many service manuals etc. and asked to upload them to forum. Ray said will be ok unless huge files. Ray can assist with uploading if required.

VK3UG Rodney mentioned the newsletter could have more input from members? So we can keep up to date with what we are all doing? Since we can't meet in person.

VK3ZNA Geoff has appeared!

VK3AXI Peter has agreed that we should keep in touch with each other.

VK3EB Dallas said QSL cards have been completed and all direct cards have been sent. Cards still need to be sent to Bureau.

Meeting closed, 1:44 pm

## Repeater News

The two metre repeater appears to be up to its old tricks of having crackly audio on weaker signals. There are a number of thoughts as to what is causing the latest problems. Let's look at a few facts.

- The interference appears only when it is windy where we are so it is reasonable to assume it is windy on the mountain.
- The output of the repeater is clean (or appears so) when it gives its ident. The repeater has the receiver disconnected when the ident is being produced. So quite reasonably it could be assumed that the receiver, coaxial cable to the antenna or the antenna have a problem or there is some external interference source nearby being picked up along with the wanted signal (your transmission).
- The transmitted signal appears clean but there is always a possibility that there may be some intermittent spurious output from the transmitter that is being picked up by the receiver. This is possible but not likely as the various filters on both the transmitter and receiver would reduce any spurious signal to an extremely low level.
- The receiver hears quite weak signals clearly when the system is operating properly, but the crackling makes the signal unreadable although it appears clear below the crackles. The receiver is unlikely to be the problem.
- The coaxial cable should be in good order but any undetected damage or loose connectors could cause the interference when it is windy.
- The antenna itself. The symptoms are very similar to what occurred with the previous antenna on top of the tower. It has been said that this problem occurred after we had an electrical storm through the area. This is quite a possibility, but there was to our knowledge no damage on other sites nearby. It would be thought that the receiver would have been put out of operation with a lightning strike or near strike, but if there was one, it did no damage.
- Note the other repeaters do not appear to suffer with this problem.
- There is a possibility of a nearby semi-conductor junction (rusty bolt syndrome – corrosion) that will intermittently rectify the transmitter signal and generate many spurious frequencies and one or more could sweep across the receiver frequency. There is some rusty chain lock fencing not far away, but maybe too far away to cause a problem.
- Of course the most likely is the receive antenna with a fault in it, but another two metre antenna in the near vicinity could have a fault too and generate this signal. This spurious signal is quite weak maybe only a microvolt or so as stronger signals are not affected by this crackling interference. This seems to suggest that the interference remains at a reasonably constant level which is due to the constant signal level from the transmitter close by. With the previous antenna the crackling obliterated in coming signals but it is less a problem this time around.
- Obviously a trip to Mt Wombat will be needed once we're allowed to venture forth.
- On such a trip a visual look at the antenna would be needed – binoculars. Test the antenna characteristics – SWR, resonant frequency, continuity and leakage tests (DMM), etc. Check other 2 metre antennas including the transmit antenna. If all appears okay connect the receiver to another antenna (lower gain unfortunately) and see how the system goes over several weeks. We'll keep you informed.

## Editors Ramblings

- It is with sadness that we report that Dallas's much loved mother passed away recently at the grand old age of 104 years. Our thoughts are with you Dallas in your loss.
- At last Geoff VK3GSR has received his paperwork confirming that he now has a Standard Grade Amateur Licence.
- Have you heard Phil VK3ELV's repeater on 147.325 MHz? I haven't but suspect Mt Major is obstructing the path to Mt Bruno. Give it a try but remember it has a 1.6 MHz split not the normal 600 kHz split and 123Hz tone access.
- Sometimes we come across a bargain. Recently a member obtained a Skanti solid state marine radio station complete it seems but not fully operational. It tunes from around 1.6 to 30 MHz HF and will give the amateur legal limit of power on SSB and CW. Not sure what it will do on AM and MCW. Yes, MCW because it will work on the marine MF band of about 400 to 513 kHz. We can expect to hear more about this find once it is operational. This could be a good transmitter for the amateur band in that MF frequency range.
- On the 15<sup>th</sup> Kevin VK3BPH notched up 82 years young. Good on you Kevin and keep on having many more birthdays.
- One or two of our members live in areas where the erection of outside antennas for their amateur radio is very definitely frowned upon. Has anyone got some ideas for both HF and VHF stealth antennas? If so let's know, so some articles on the subject can be put in the newsletter.
- As I'm sure we all know on the 22<sup>nd</sup> at about 9.15am there was an earthquake through most of SE Australia. It certainly showed up the poor condition of some buildings. Trust no members had any problems – our repeaters kept on operating so no obvious problems on Mt Wombat.
- Later in the newsletter is an excerpt from the Ballarat Amateur Radio Group newsletter from May 2020 on an antenna for 6 metres by Craig VK3KG. As it is designed for 52 MHz you may need to scale it slightly for 53 MHz.

I used to be allergic to soap but I'm clean now.

The patron saint of poverty is St. Nickeless.

What did the man say when the bridge fell on him? The suspension is killing me.

Do you have weight loss mantras? Fat chants!

My tailor is happy to make a new pair of pants for me. Or sew its seams.

What is a thesaurus's favourite dessert? Synonym buns.

A relief map shows where the restrooms are.

Police were called to the day-care centre. A 3-year-old was resisting a rest.

The other day I held the door open for a clown. I thought it was a nice jester.

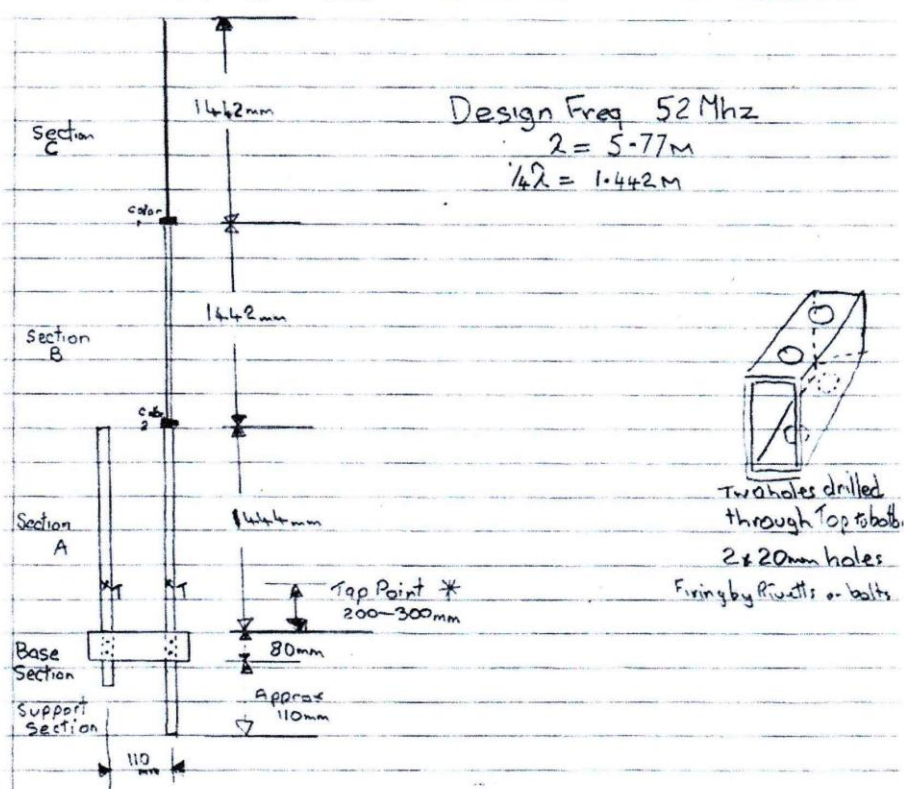
### 6m J Pole Antenna

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.

### 6M J Pole Antenna

VK3KG



Materials: Section 'A' 20mm Al tube 1.7mm wall. Quarter Wave Stub.  
 Section 'B' 16mm Al tube - telescopes into Sect 'A'  
 Section 'C' 13mm Al tube - telescopes into Sect 'B'  
 Base section: Al box section 80 x 160 x 30mm.  
 Collar 1. Small 16mm tube - 10mm long - Pop rivet/Stapped at 'Sweet spot'  
 Collar 2. Small 20mm tube - 10mm long - Rivet/Stapped at 'Sweet spot'

Note:

Sections 'B' and 'C' both extend about 150mm into next section  
 Collars 1 and 2 used to locate and fix for design frequency  
 Sections A+B are slotted 25mm at their tops allowing for clamping  
 Clamps used are small hose clamps with worm drives.

\*



For use in the 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