



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

Repeaters VK3RGV Freq: 53.725MHz (1 Meg offset),
146.65MHz (IRLP Node #6992 inoperative. Will return ASAP)
(Echolink active.) (600 kHz offset),

439.775MHz (5 MHz offset), 438.2MHz (D-Star) [D-Star not operational at this time on Mt Wombat]

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

Club Network informal on air get togethers. All welcome. Club callsign VK3SOL:-

Wednesday evening - 3.63 MHz ± interference 8.30pm. 2mx repeater 8.00pm

The WIA Sunday morning broadcast is often re-broadcast in the evening on the 2 mx repeater.

The local vintage radio club has a get together at 11.00am of a Sunday on the 2 metre repeater. Many of their club members are members of SADARC too, so join in for a chat.

Meetings are held at 1 pm on the first Saturday of the month (except January when no meeting occurs) at the Mooroopna Scout/Guide Hall off Echuca Road, Mooroopna. Variations in these times, days and location are normally notified in the preceding newsletter.

Website – www.sadarc.org

Facebook - www.facebook.com/sadarc.org Info for page contact Denny on denny3782@gmail.com

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. You do so at your own risk.

President:- Peter Rentsch	VK3FPSR	pages.cobram@bigpond.com	
Secretary:- Andy Ashley	VK3AJA	andyashley@icloud.com	
Vice-President:- Barrie Halliday	VK3KBY	Treasurer: - Ron Burns	VK3COP
Membership Sec: - Pat O'Shannessy	VK3OV	Webmaster: - Steven Hamer	VK3DP
Station Manager: - Vacant		Publicity Officer: - Vacant	
Technical Committee: - Phil VK3ELV, Ray VK3RW, Geoff VK3ZNA, Kevin VK3BPH & Rodney VK3UG			
Newsletter:- Rodney VK3UG (Editor) rodlynn6@bigpond.com & AndyVK3AJA (Printing/ Distribution)			

OTHER CLUB'S NEWS

Bendigo Amateur Radio & Electronics Club nets – Tuesdays 8pm 147.15MHz VK3RCV with club callsign VK3CMZ and Thursday 8pm 3.655MHz ± interference. All welcome to participate. Many SADARC members are able to access their 2mx repeater.

Ballarat Amateur Radio Group – email vk3bml@barg.org.au and www.barg.org.au

Presidents Report April 2017

Our March meeting was well attended and thank you to all those who made the effort. The meeting commenced with a 6m, 2m 70cm antenna building project and six members obliged themselves of the Geoff's VK3ZNA's knowledge. Thanks to Geoff for arranging this project. Whilst this was occurring other members had a chin wag and prepared the BBQ. After more talking and more eating we had our regular meeting that went well.

Our annual get together at Goulburn Weir with the BAREC group was cancelled this year due to inclement weather. The weather gods were not with us that weekend – the worst weekend weather wise for a long time. Hopefully next time we will be more fortunate in our planning.

At our May meeting we will have Ian VK3JNC as our guest speaker. Ian is one of our Club Members and has been a regular attendee on the 80m Net. Ian's topic for the day will be Radio Navigation Communication from the ground up.

A short report for this newsletter as I have been time poor this month to do anything exciting on the Radio.

Cheers & 73 Peter – VK3FPSR President – SADARC

SADARC Calendar of Events

May 6th Club Meeting at 1.00pm followed by Ian VK3JNC talking on Radio Navigation Communication from the ground up. **(This is an area of radio not many of us fully understand. I expect we will learn many things that are new to us. Rodney VK3UG Editor)**

June 3rd BBQ at 11.00am followed by regular meeting and Working Bee to erect the Clubs antennas (tbc)

June 10th & 11th Steam Rally – Echuca

July 1st Club Meeting at 1.00 pm followed by a Show n Tell. (Note, President Peter will be away at GippsTech on the day so need an acting President)

August 5th Club Meeting

September 2nd Club Meeting

September 10th SADARC Hamfest

October 7th Club Meeting with AGM

MINUTES

Shepparton and District Amateur Radio Club Meeting

1:00 pm 1st April 2017

- In Attendance were:
VK3UG Rodney, VK3DSF Max, VK3PXJ John, VK3ZE Huntly, VK3KJB John, VK3KBY Barrie, VK3DFA Arthur, John Stevens, VK3DMD Doug, VK3POP Greg, VK3FNQS Jason, VK3ZNA Geoff, VK3BPH Kevin, VK3FDV Dave, VK3FBNG Bruce, VK3TJS Jacek, VK3COP Ron, VK3FPSR Peter, VK3AJA Andy.
- Apologies:
VK3FALN Alan, VK3NQS Colin, VK3FMAA Michael, VK3KMF Mark.
- Confirmation of Minutes of previous Meeting
Read by Peter VK3FPSR.
- Matters arising from the Minutes
None
- Inward and Outward Correspondence
In. WIA insurance form. And Insurance certificate 2017

Out. WIA insurance form completed.
- Reports
 - Financial:
Read by Ron. Moved by Ron, second by Kevin.
 - Technical:
Read by Rodney. Rodney expressed frustration at speed of works at Mt Wombat. Moved by Geoff, second by Bruce.

We have a Cherrie picker organized for after Easter sometime; The Yagi is at Greg's house and is ready to put up. We will get it over to the rooms when the time comes. We will need a chainsaw on the day also to trim dead tree branches.
- General Business
The time that is taking for works at Mt Wombat was discussed and will be chased up this week. Jason VK3FNQS also relayed his frustration at IRLP waiting for works to be completed.

Peter will draft a letter of thanks to Tim (Murray Quad) for their very kind donation.

We have voted to keep the 80m net @8:30pm as seems to work for all.

Andy mentioned a BBQ Brunch at a park, for members to get together at some time. Will advise via email.

The club has agreed to approaching council for possible funding for new rooms, Andy will make some enquiries. Closed 2.20 PM

Another Squid Pole Antenna Story

On the Wed evening net a while back the subject of what is a good portable HF antenna for when you are away in the caravan or camping came up. The conclusion was that a squid pole antenna was a good all round compromise. Small light and easy to pack away in the van or vehicle. Is quick and easy to put up, no need for guy wires. Not expensive nor dependant on any local infrastructure, read trees to suspend it from, and most importantly it works. Our secretary, Andy VK3 AJA directed me to a website, <http://www.perite.com/vk7jj/squidpoles.html>

This site pops up or is reproduced by others when you Google Squid Pole Antennas. It is an antenna that is usable on all the HF bands except 160 and 6 meters.

I am not going to go through the construction details here, because you can read the full sequence from that site, but if you are not familiar with it pop across and have a read of page 1 so that my comments below make sense. Page 2 is good trouble shooting information where slapping it together doesn't give a good result. I will now give you an insight into my journey to success.

Sourcing your squid pole. The article is built on a 9 meter squid pole, but hey wouldn't a 10 meter pole that collapses to the same size be better. Off course it would!!

Got mine off E bay, search squid pole antenna, from the Sydney supplier Haverford in Revesby Syd, Seller name is Netting_sales and it was \$77 plus \$20 postage. They do have a 9 meter pole a bit cheaper if you like.

Next the insulated 2 mm diam wire. I used 10 Amp automotive wire. I bought a 30 Meter roll from Supercheap Auto. The enamelled 1mm wire can be found at Jaycar but I had mine from a transformer project. The rest I am sure you will find. (I still haven't found a source for the 25pf mica compression cap for the 20 Mtr coil though. Any suggestions?)

But first a bit of philosophy. Give an amateur a good set of instructions like the author, VK7JJ has done and he will build it, use it through an antenna tuner and be happy.

Give an amateur an antenna analyser, so he can see what is happening, and additional tuning information, as VK7JJ has done and he will be set up to frustrate the daylights out of himself for days! But will get there and learn a lot more through the journey!

I followed the script but found when I tried to join the Wed 80 Meter net from Rye I could hear everyone well but couldn't get a clear signal back to Shepparton. Went out and bought an antenna analyser to find out why and was set to investigate and be frustrated tuning it in.

Lesson 1. Make sure you have a good ground plane. I started out with 4 simple wires but finally found that as VK7JJ advised tape measures are the way to go. I bought 4 at 8 meters ea.

Step 1 in constructing the antenna is to get the vertical wire to resonate on 7.1 MHz I found that altering the length of tape pulled out altered the resonant point. At Rye on dry sand and the squid pole occy strapped to the veranda post 6 meters of tape on each of 4 radials was great. Up at Murchison on the hard ground we have and the squid pole occy strapped to a fence post 4 meters on each tape was better. Will be interesting

to get it mounted on the caravan on the front drawbar and see what length and how many will be sufficient with the caravan as the main ground plane. Will also be interesting to find out how directional it will be.

To use tape measures I soldered a banana plug to the tag at the end of the tape measure. Note on a tape measure to get an accurate measure the tag moves as it has to slide back and forth depending on whether you are hooking the tag over the end of a bit of wood or pushing it up against a wall. So to ensure a good electrical contact between the tag and the tape I flattened the rivets so the tag doesn't move.

Lesson 2. Don't be afraid to experiment a bit. For me getting the first wire to resonate on 7.1 MHz I ended up with 9 coils on the former, not 7 as per the recipe. Also found the 80 Meter loading coil wouldn't resonate on 3.5 MHz unless I increased the turns to 29. Similarly the 5 turns on top of that was reduced to 4 from 5 to get a low SWR and on 3.6 MHz. As VK7JJ noted slightly thicker or thinner wires can do this. Having said that Andy followed the recipe without deviation and got the desired result. The golden touch!!

In use the antenna has the vertical wire giving all bands except 80 and 20 meters. So there are two additional coils that have to be made, one for each band. Frequency wise they are sensitive to touch or surroundings so in use they need to be held in place somehow. I attached a plumbing pipe joiner to the squid pole to act as a "cup holder" for these. In the photo below you will also notice that there is a row of banana sockets on it. They are all interconnected and act as the ground plane point where the banana plugs on the tape measures plug in, and also one from the caravan chassis or bodywork. This way the ground plane is at the base of the antenna.

The author recommends placing an auto tuner at the squid pole connected at this point. However I have a manual tuner and at Rye where I have been testing it I needed it to be inside, so I opted to place a 1:1 toroid balun at this point and lead coax into the house to the tuner. That's the grey box near the cup holder.

So how does it work?

It is early days but I was able to join the Wed 80 Mtr net from Rye without the team booing me off the airwaves, and it wasn't a good propagation night either, very stormy. Have also had other strong contacts into VK 1, 2, 5 and 7 on 80 Mtr. On 40 meters had a very good QSO with a gent in Georgia US. (I think his beam might have had a lot to do with this, but hey it worked! But I did have other stateside QSO's) . Must give the other bands a go! Andy is also very pleased with the results when he took his on his camper trailer trip to SA.

I have been amazed at the number of other amateurs that are on air using squid poles in one form or another, even if it is just supporting an inverted V. So if you want to break free of the shack and travel to other locations why not give a squid pole a go. If it doesn't work turn it into a fishing trip and catch squid instead!

Doug Mc Donough VK3 DMD

Thanks for the article Doug. Several years ago the club got together and ordered a batch of squid poles of various lengths to get a better price than individually and to reduce freight costs. There was a reasonable saving. Do we want to do this again? Rodney VK3UG

Doug VK3DMD showing his Squid Pole antenna as well as the connections he has at the feed point. If you want more detail have a chat with Doug.



Geoff VK3ZNA's antenna class with enthusiastic members making up the 6/2/70cm antennas, with John VK3XPJ looking on. Bruce VK3FBNG looking after the BBQ making sure the snags didn't get burnt.

Editor's Ramblings

- It has been brought to my attention that some members are not receiving their newsletters via email who would normally receive them this way. If you hear queries about this suggest that the member(s) concerned look in the TRASH section of their computer email system as it may be there. If you know of members who are not getting their newsletters either by email or snail mail suggest they contact Andy VK3AJA or Peter VK3FPSR.
- It was agreed at the meeting on 1st April that **the 80 metre get together on a Wednesday night go to 8.30pm for both daylight saving and standard time and that 3.630 MHz \pm interference be used.** Propagation and time after an evening meal makes this a much better time slot. However,

apparently a VK5 group use the frequency that we have used (3.620 MHz \pm interference) at this time so it would be politic to move to a nearby frequency 3.630 MHz.

- Some members are wondering why the IRLP is not operating on the 2 mx repeater. As was originally decided and approved we could purchase a board or similar so that the IRLP function could be legal. It was discussed within the technical committee and we believed that it would be better to put the necessary modification on the new repeater that has been supplied by ARV. This is intended to occur when the work by ARV and Austereo is complete. I might add we have been waiting for around 2 years for all of this to occur so we can do our part.
- Jason VK3FNQS has some ideas on add-ons to our basic repeater sets ups (including IRLP) that will be discussed in due course to see the viability of these into the future. Good to have younger members wanting to physically assist. His ideas have been passed on to the technical committee for consideration and we'll talk to Jason about these ideas.
- Geoff VK3ZNA conducted an interesting practical day on how to construct a 6mx/2mx/70cm vertical antenna. Geoff had four (or was it 6?) apprentices in Doug VK3DMD, Greg VK3POP, Arthur VK3AFD and John VK3KJB. Whilst the antennas were not completed on the day much of the hard work of preparing the various elements was completed. Now the apprentices have to do their homework and assemble the antennas. See photos above.
- Doug VK3DMD has been experimenting with a squid pole antenna and we have an article on his experiments including the unique radials is using. See above.
- Bruce hopes to have a report on the Murray Quad.
- Third hand, it is claimed that some of our antennas on the repeater hut are obscuring the view by Geoff Broughton the Fire Watch operator. Kevin VK3BPH and Rodney VK3UG have looked at this and may well look at it again but cannot see that any of our hut antennas are causing anymore interference to vision that the existing lattice tower, the new Austereo tower and the Strathbogie Shire tower. The so called complaints have only come since the new tower was installed.
- We look forward to the antenna work being undertaken at the club rooms. Andy has been able to organise a cherry picker for some time after Easter.
- The club has decided to go ahead with a display at the Echuca Steam Rally over the Queen's Birthday weekend 10/11th June. We do need members to attend and help with the display. The display at the Kyabram Old Machinery weekend in March was a non-event due to no one putting their hand up to assist. WE missed a good opportunity to display amateur radio. It is likely that the Vintage Radio club will be co-sharers of a site as happened last year. Andy VK3AJA and Dennis (secretary of the Vintage Radio Club) will be in touch later on to work out some details I understand.
- Andy VK3AJA is having trouble getting his idea of helping other amateur with antenna problems hard to get off the ground. It is hoped to get to John VK3XPJ's antennas soon. Can you help with work?
- Andy VK3AJA is interested in getting a 6 mx on- air-get-together much the same as occurs on 80 and 2 metres sometime soon. With a few more antennas being made that accommodate 6 mx this is nearing being practical. When the 6 mx repeater system is upgraded (new antennas and attention to the cavities it is likely that stations as far away as Geelong will be able to fairly easily access the repeater.
- A few operators endeavour to access the 6 mx repeater with their horizontally polarised DX antennas with rather poor results. It is likely that the antennas are not tuned to the FM part of the band and additionally there is a 20 dB loss due to cross polarisation. We would urge these amateur to go the next step and put up a 6mx vertical tuned to the FM part of the band and you will do so

much better than using cross polarization. Exactly the same problems happen with any cross-polarised signals on other bands. I used to have trouble on 80 metres as I used vertical polarisation and others in nets used horizontal.

- There is talk that courses can be run to assist members to upgrade their licences. This would mean that ex F calls could then use 6 mx. Talk to Andy about this.
- Greg VK3POP and Peter VK3FPSR are quite interested in establishing School Radio Stations under the tutorship of Julie VK3FOWL and Joe VK3YSP. You may remember their talk to the club in February. If we don't encourage young people into amateur radio it is likely to die a slow death. If you are interested in helping either Greg or Peter contact them.
- Next month we have Ian VK3JNC talking on aircraft communications. Ian was employed by the Department of Civil Aviation at Mangalore for a number of years. I am certain that Ian can tell us a lot about the very interesting methods of communications, navigation, direction finding, etc. Make a point of coming to our next meeting on 6th May I'm sure we will learn a lot.

FOR SALE :- Over the last few years I have developed AC power supplies to power valve type vintage battery radios. The designs and kits of parts are now available. The supplies are designed to supply DC LT voltages between 1.4 and 9 volts at up to 3 amps regulated, and DC High Tension voltages between 22.5 and 135 volts at up to 25 ma, plus bias voltages between -1.5 and -22 volts. All voltages are regulated. A printed circuit board to mount most of the parts is \$22 posted within Australia with circuit information. A printed circuit board and a kit of parts for the board plus a few components external to the board (but no heat sinks) Mk V version \$80 or the Mk VI version \$70 both posted within Australia. Circuit, circuit information and construction ideas are supplied for the version purchased.

Contact Rodney VK3UG 03 5825 1354 or email rodlynn6@bigpond.com

FOR SALE:- New RG58 MIL spec coaxial cable. 75c a metre in small lengths, a better price for longer lengths.

Contact Barrie VK3KBY 0427 116 101

Wanted:- Ads for your surplus equipment, information sought, or wanted to buy.

