



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

VK3RGV repeaters and transmitter operating frequencies

53.725MHz (1 Meg offset),
146.65MHz (600 kHz offset) (IRLP Node #6992) (Echolink active.),
439.775MHz (5 MHz offset),
438.2MHz (D-Star)

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 call sign VK3SOL:-

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

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

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.

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:- Graeme Martin	VK3FCVT
Membership Sec: - Pat O'Shannessy	VK3OV	Webmaster: - Steven Hamer	VK3DP
Station Manager: - Vacant		Publicity Officer: - Vacant	
Communications Managers (External Events):- Bruce (VK3PNF) & Darren (VK3HEN) Glasson			
Technical Committee: - Phil VK3ELV, Ray VK3RW, Geoff VK3ZNA, Kevin VK3BPH & Rodney VK3UG			
Newsletter:- Rodney VK3UG (Editor) rodlynn6@bigpond.com Peter & Andy (Printing/ Distribution)			

Note as at 5/11/17 only the analogue 70cm repeater (439.775 MHz) is operational. The 2mx, 6mx and D-Star repeaters will return as soon as restoration/upgrade is complete, as will the IRLP. Hopefully all will be going before Christmas this year.

AGENDA
Shepparton and District Amateur Radio Club Meeting
1:00 pm 7 Nov. 2015

In Attendance were:

VK3AO Alan, VK3HEN Darren, VK3PXJ John, VK3UG Rodney, VK3BPH Kevin,
VK3ZNA Geoff, John "Stevo" VK3PGK Graeme, VK3DSF Max, VK3OV Pat, VK3KBY Barrie
VK3FCVT Graeme, VK3FPSR Peter, VK3AJA Andy.

Apologies:

VK3PNG Bruce, VK3FNQS Jason, VK3NQS Colin, VK3FALN Alan, VK3ZE Huntly, VK3KMF Mark.

Confirmation of Minutes of previous Meeting

Read by Peter. Moved by Kevin, second John.

Matters arising from the Minutes :-

Inward and Outward Correspondence

In: ACMA Licence.

Reports:

○ Financial:

Read by Graeme. Moved by Geoff. Second by Graeme K.

○ Technical:

Read by Rodney/Geoff. Moved by Geoff. Second by Darren.

A fair bit of work at Mt. Wombat. has been completed.

SADARC has thanked Tech. Committee for all the help.

General Business:

Xmas lunch booked. Saturday 2nd Dec. Royal Mail Hotel, Mooroopna. (Alongside the Ridley Grain silos in the main street.)

Murray quad. Darren has 6 Members to assist but could do with a few more.

BBQ tools purchased. Now we have our own.

Thank you for donation of Gazebo by Stevo.

Kevin has sold a better BBQ to club for \$50.

President looking into moving to Bendigo Bank as fee free for Clubs.

They also are more community based.

Kevin moved to look into. Second Barrie.

Rodney spoke about purchasing some gear for Mt. Wombat that will need to be purchased possibly \$500-\$1000 not sure on exact total.

Rodney moved to allow purchase as required.

Second Kevin. All agreed.

Old tower is in storage at present.

Rodney has suggested to invite ARV and Southern Cross Rep. to Xmas lunch. Peter Mill and Alan Tattersall.

Moved by Rodney. Second by Geoff

Closure and date of next meeting (2/12/17 our Christmas break up. Not a formal meeting)

Closed 2.15 PM

Communication Jamboree event

By Tara Whitsed

The South Shepparton Girl Guides connected with 40 different countries and three different Australian states at the recently held Jamboree on the Air and Internet event.

With JOTA celebrating its 60th year in 2017, Shepparton and District Amateur Radio Club secretary Andy Ashley was on hand to help the girls communicate via HAM radio.

"They really enjoyed it," he said. "We spoke to Girl Guides in Queensland, South Australia and NSW and we pinned it all on the map," he said.

Mr Ashley said it was an exciting thing for the girls who were largely unfamiliar with HAM radio.

"It's about making contact via a different medium," he said.

South Shepparton Girl Guides leader Bronwyn Cole said the JOTA-JOTI was a great way for Girl Guides across the country and internationally to come together without having to travel anywhere.

"We talked to about 200 kids at a campsite in Queensland for about an hour," she said.

Ms Cole said the girls were full of questions about the differences between guiding in each state and the 40 different countries they

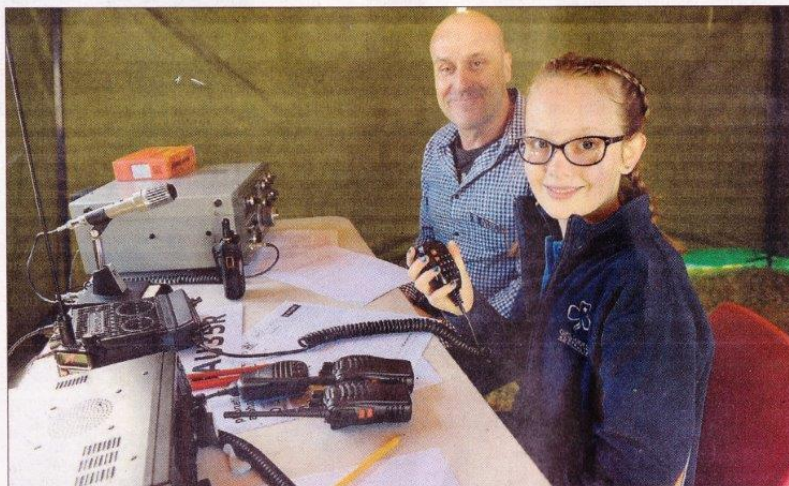


Coming together: Olivia Judd, 12, uses Skype to communicate with other Girl Guides overseas.

contacted via Skype. "They worked out what they would ask in advance," she said.

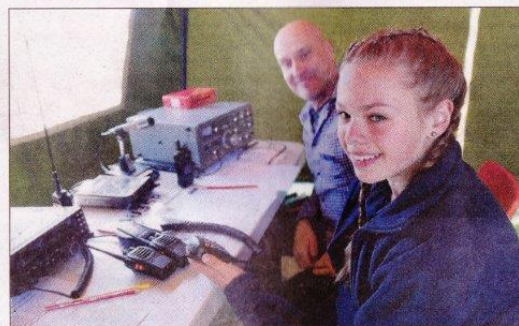
She said the girls discovered that it did not matter where they spoke to, everyone's favourite foods were pizza and pasta.

"We're already looking forward



Connecting: (Above) Jasmine Rudd, 12, with SADARC secretary Andy Ashley.

Different medium: (Right) South Shepparton Girl Guides member Mikayla Bright, 13, and SADARC secretary Andy Ashley communicate via HAM radio.



to next year," she said. Ms Cole said they hoped to potentially expand their involvement and invite groups from across the Goulburn Valley to next year's event.

Jamboree on the Air.

Whilst the print is small and a bit hard for us older folk to read a good headset magnifier or magnifying glass will help. Above we have our beaming Secretary doing his good deed for the South Shepparton Girl Guides. Seen here conducting the Jamboree on the Air with a trusty Kenwood hybrid transceiver from the 1980s. A job well done Andy VK3AJA and Barrie VK3KBY, and Andy is to be congratulated for getting publicity for amateur radio.

Mount Wombat Repeater Site Progress

As members will remember back over two years ago a number of moves occurred that were not of our choosing on Mt Wombat. Amateur Radio Victoria (ARV) which has the lease to the site said that many things had to change for a variety of reasons which I won't go into here. It involved the entry of Austereo into our hut, the installation of a 25 metre self supporting tower, the fitting of new antennas and long term, installation of newer equipment and a complete revamp of the inside of the hut (it was like a dog's breakfast). We negotiated with ARV and Austereo to come to an end result that was satisfactory to all concerned. I might add that very little of this has cost the club anything, so any inconvenience to club members have with the repeaters being off air is a small price to pay for a better repeater site.

The tower was installed and mostly new antennas were installed by Rubicon Industries. The hut had new cables and cable trays installed whilst the inside of the hut was fitted out with 2 x 19" racks for

equipment. The installation in the hut and the outside cable trays and coaxial cables by Austereo has been very neatly done and a lot better than how we had it.

- The battery box was removed and the batteries put to one side for the time.
- Two 19" racks were fitted in place of the shelves used until now.
- The 6 mx and 2 mx repeaters were taken out and returned to Shepparton for storage until an opportunity came to reinstall them.
- Peter Mill VK3ZPP brought a variety of cavities and resonators and circulators (not sure of all the terms) and installed these. These will make it much easier to use multiple services with minimal frequency spacing.
- An attempt was made to get our existing 2 mx service up and running but it was found not to be operational so it is being looked at by Geoff VK3ZNA.
- The UHF CB repeater antenna was removed and the CB repeater is now able to use a similar antenna higher on the tower which should give similar results to previously obtained. This was provided at no cost to the CB repeater owners.
- The CB repeater itself was found to be transmitting but had no audio so was taken down, repaired and is waiting to go back to Mt Wombat. A further check on a possible interference problem within the unit itself is being investigated.
- The less than perfect 6 metre standby antenna on the hut was removed and in its place the single folded dipole we have been using on the lattice mast was put in its place. Note there is a new 2 x folded dipole antenna on the tower which is expected to give better performance on 6 mx when all is returned to normal.
- In due course the Digital Signal Processing on the 6 mx repeater rx will need some attention to get the best results.
- The 70cm analogue station continues in operation. The antenna on the hut was shifted to help reduce the number of poles on the hut which is now one instead of three. This antenna took the place of the standby 70cm/2mx antenna. A report I have is that the repeater signals are now stronger; the only changes are the location of the antenna and the use of a shorter heliax cable (probably in better condition).
- With the work that has been done we now have four x 2 mx antennas on the tower so none are needed on the hut.
- The pole remaining on the hut should be braced to ensure its long term viability.
- Paul Watters of Rubicon swept the performance of the antennas and found all were okay. He also swept the 6 mx and 2 mx cavities. The 2 mx cavities were found to be good although one was slightly out of tune but he did not express any concern about this. However, the 6 mx cavities were in poor condition probably due to bumping and knocking whilst the work in the hut was being done.
- These cavities were taken back to Shepparton and they were checked with one coaxial cable having a problem in a connector and one tuning shaft had the bottom section fall off. These were repaired, then checked on a spectrum Analyser and notches at the correct frequencies were able to be obtained with a depth of -65 dB.

- We have had problems with power supplies not failing safe and damaging equipment and batteries after a lightning strike. I have a concern about this and will be building a failsafe system for the equipment and batteries. As fail safe as I can, that is.
- Some earth bonding is required onto the hut rails and to the coaxial cable tray.
- Geoff has suggested that we obtain some 19" rack trays for the FM828 equipment which is not intended for rack mounting.
- Geoff is also negotiating to obtain some made up VK5DJ repeater controllers which he may obtain at a good price. If successful this would mean that each main and standby repeater could have its own controller. Strongly recommended by the Technical Committee.
- The CB repeater may also need one of these as it has an issue with generating internal signals that are causing interference (and therefore de-sensing) into the receiver IF stage.
- We will need to tidy up around the site, although quite a bit has been done.
- As time goes by newer equipment will be installed once we've got our head around the control etc of these repeaters.
- Eventually there is likely to be D-Star, DMR and some links installed.
- The Nally lattice tower is in storage along with the antennas that were on it. Paul says that these towers sell for \$800 to \$1200.
- The site is looking good and when the various services are reinstalled or replaced we can expect improved performance, thanks to ARV, Austereo and Rubicon. And of course your technical committee.

Things still to be done

- The antenna pole on the corner of the hut roof to be braced. May not stand a strong storm without damage.
- More earthing straps to be installed onto the hut rails and the cable tray.
- Block up any holes through the hut wall to prevent any rodents etc. getting into the hut. One hole at least on east wall.
- A DC controller to be built to protect the batteries and the repeaters should the power supply fail unsafe in an electrical storm or when power fails and the batteries are flattened. It protects against over and under voltage conditions. Our last power supply failure caused around \$600 damage.
- 19" rack equipment trays to be obtained and installed to mount the FM828 size repeaters.
- A number of low loss coaxial cables need to be made up and fitted to the repeaters and the cavities.
- Various low voltage cables will need to be made up too to work with DC controller.
- Cabling needs to be neatly done to ensure we maintain the look of the site in a professional way.
- Overhaul of the current 2 metre repeater and either install it at this stage or the new to us Tait repeater. Work needed on the controllers and the IRLP facility.
- Obtain additional VK5DJ controllers if need be.
- 6mx repeater and its cavities to be installed as soon as practical. 2mx takes precedence though. Two better cavities are to be worked on to take the place of two of the cavities we have already.
- The Digital Signal Processing (DSP) on the 6 metre repeater needs an audio AGC system built into it.
- Probably fit a DSP unit on the 2 mx repeater as well. These improve the signal to noise ratio on weak signals into the repeater.

- The UHF CB repeater will be re-installed once any problems it may have are ironed out. We treat the UHF CB repeater and the 2 mx repeater as essential services in times of emergency – bushfire etc.
- Once the above items have been done, attention to the D-Star and internet links will occur and later other services.

As can be seen there has been a lot done by Austereo, ARV and Rubicon to make this site a very good site. It is now our responsibility to get it going with some of our existing equipment initially and gradually change to newer and better equipment which has been supplied or will be supplied. We will then have a main repeater plus a cold standby. The cold standby would be put into operation in place of the faulty main unit which would be taken down off the mountain for repair at someone's workshop. It is not practical to do much in the hut. There are a number of individual projects on this list.

The cost is not fully known but is expected over the period of completing each project to add up to between \$500 and \$1000. The committee have been authorised to go ahead with these projects and of course we need to keep others in the committee and the leadership of the club informed of our activities. This is as in any business dealing with other people's money (club's money) that we do account for what we do and spend.

You may be asked to assist with some of these projects by members of the Technical Committee. You would be up on the mountain or doing some things at home under the guiding hand of a member of the committee.

Rodney VK3UG 5/11/2017

Editor's Ramblings.

- We are sorry to hear that you had a mishap and broke your hip Ron. We wish you a speedy recovery in the Benalla Hospital Rehabilitation Centre. Andy says you are really with it with SMS.
- At our last meeting the 80 and 40 mete wire antennas were re-erected after an overhaul. As I understand it Geoff VK3ZNA did the overhaul and Kevin VK3BPH spear headed the actual erection – along with a number of onlookers. A job well done.
- Once again a great BBQ before the meeting on the 4/11. The sausages were some of the best I've ever tasted.
- Every so often I suggest that members consider getting their **newsletter** by email as you get it earlier than those posted, it costs less to send and the vagaries of the postal system mean that you may get it later than the time of the next meeting. Currently around 16 members get theirs by post.
- Don't forget the end of year luncheon at the Royal Mail Hotel in Mooroopna (right alongside the Ridley grain silos) in McLennan Street on the 2nd of December. Get there from midday onwards. I know some can't get there before around 1 pm, so we can have a chat anyway. We will be meeting with the Vintage Radio Club as we have on a number of other occasions. Nearly a half of our SADARC members are members of the Vintage Radio Club too. The meals are good value and you order and pay for what you want.

Rodney VK3UG 5/11/17



50 Years on.

This is the remnants of the sub-Antarctic wintering team at Macquarie Island in 1967. Of the 19 wintering team only 10 are still with us and at the recent 50th anniversary reunion only 6 were able to attend. From the left Rodney VK3UG (ex VK0CR and Radio Supervisor), Ken Shennan (Diesel Mechanic) note he came from Benalla, John Evans (Doctor), Alf Svenson (Metrological Technician), Bill Merilees (Biologist), and Mike Chapman (Carpenter). The average age of the team that year was 27. It was an interesting year for all concerned. Amateur Radio played an important part of the life for me and for many of the other chaps.

Amateur Radio from a good DX spot was good fun. I even won a contest down there but for some reason the WIA didn't award it to me. I worked 92 countries and really I'm not a DX hound. I was more interested in talking back to Australia and New Zealand. I worked 80, 40 and 20 metres and rarely 15 metres. I used a Yaesu FL200B SSB/CW transmitter and a Yaesu FR100B receiver. A few times I did use a linear but mostly it wasn't necessary as I had good antennas – large V antennas. I did take 6 metres down to Macquarie Island and I did hear a couple of VK7s on 6 mx bemoaning the fact there was no DX, and I was calling my lungs out. Pity I didn't have a transmitter with a VFO and a good antenna. I couldn't go down the street and get the material or buy an antenna. I only used a dipole. My transmitter had a 6DQ6A sweep valve in the output running straight through, and modulated by a pair of 6BQ5 valves in push pull. Yes, the good old days of AM and home construction. Since that time Macquarie has been worked on 6 mx.

The station call sign is VJM and in those days we had a variety of frequencies from 2760 kHz to over 19 MHz with a popular one 14.415 MHz. The main receiving equipment at Macquarie consisted of two Collins 51J4 30 band AM/CW receivers (didn't work well on SSB, my amateur gear was better) and a solid state receiver on 2760 kHz. The Collins receivers were used on the communications links to Sydney Radio VIS, Aurarua New Zealand, Antarctic headquarters in Melbourne and the other Australian Antarctic bases and any ship coming or going to Macquarie. The transmitters consisted of two AT20 500 watt AM/CW transmitters ex WWII (in rather ordinary condition), a Redifon 423G providing 500 watts AM, 1500 watts CW and 2000 watts PEP USB/LSB/ISB, and a small home brew AM/CW transmitter on 2760 kHz to communicate to outstations around the island. The majority of the commercial traffic was by morse code. We had Creed morse punching machines which produced a perforated paper tape which was fed through a reader to key the transmitters. The machines were nearly worn out as the punches didn't cleanly perforate the paper tape. Once again WWII equipment. SSB was mostly used to talk to other Antarctic bases and headquarters in Melbourne.

The emergency equipment consisted of an ART13 transmitter and a BC348 receiver which ran off 24 volts DC. This was to be used if the main equipment or radio station was destroyed due to fire etc.

Around the island there were a number of huts and these had small transceivers, a couple of Pye dry battery transceivers using sub miniature valves and several Vaughan VPT1 transistorised transceivers with an output of 0.3 watts. They really were quite inadequate and the year after I was there they were replaced with AWA Forestphones of around 10 watts output.

Rodney VK3UG

Presidents Report November 2017

Thank you to all those that attended our November meeting – a smaller than usual group. It would appear that a lot of members were away for the Melbourne Cup Weekend.

Our day commenced with a Working Bee to set up our HF Antennas that have been refurbished by Geoff VK3ZNA. These are now in place and working. Finally, we have a Radio Club with a working station. Work on these had been delayed as I was hoping that we had been able to relocate to a more suitable building in the near future but it appears as though that is not going to happen. After a BBQ Lunch we then proceeded with our regular meeting.

Talking of a better venue, can everyone please keep their ears to the ground for a better site within the surrounds of Shepparton. A building that is dedicated to ourselves and the Vintage Radio Club will enhance our Clubs enormously. I personally believe that we as a group are being restricted in our growth due to a not completely suitable building. If we are to instil some enthusiasm into Amateur Radio, Vintage Radio and Electronics in general then we need a dedicated space!

During October our Club was again involved in assisting with the Comms for a Athletics event in Yarrowonga. By all reports all went very well and a special thanks to all those who helped and to Bruce VK3PNG and Darren VK3HEN for managing this.

As this will be the last Newsletter for 2017 Karen and I would like to wish everyone a Merry Christmas and Safe New Year. Last year Santa brought me a DMR Radio – wonder what he is going to bring me this year!

December is out last meeting for the year please remember that we will meet for a Christmas gathering at the Royal Mail Hotel – MOORoopNA with the Vintage Radio Club. Lunch will commence at 12.30 pm. After this we will meet again on the 3rd February, 2018 for our next meeting.

So I look forward to seeing as many of you as possible to reminisce as to what happened in 2017 and look into a crystal ball to see what 2018 will bring at our Christmas Lunch on the 2nd December.

Cheers & 73

Peter – VK3FPSR
President – SADARC

Calendar of Events

December 2nd – Christmas Lunch Royal Mail MOORoopNA 12.30pm

February 3rd – Regular Meeting at Mooroopna
Guest Speaker Luke Steele VK3HJ - Topic **“DXing, from both sides of the pileup”**

March 3rd – Regular Meeting at Mooroopna

March 18th – Get together with BAREC Club at Goulburn Weir – earlier this year to try to pick better weather!