



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

### VK3RGV repeaters and transmitter operating frequencies

53.725MHz (1 Meg offset), **Operational.**

146.65MHz (600 kHz offset), **Off-air (being refurbished).**

438.2MHz (D-Star) **Off-air (to be re-installed).**

438.650MHz (7 MHz offset and 91.5 Hz tone access), **Operational.**

439.775MHz (5 MHz offset), **Operational.**

Access to most of the analogue repeaters is by sub-audible 123 Hz tone or noise mute (less sensitive). Club Network informal on air get togethers - Wednesday evenings. All welcome. Club call sign VK3SOL:-  
2mx repeater 8.00pm (**On 146.850 MHz at the moment**), 3.63 MHz  $\pm$  interference 8.30pm.  
**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](http://www.sadarc.org) Face book - [www.facebook.com/sadarc.org](http://www.facebook.com/sadarc.org) Info for the page contact  
Denny French on [denny3782@gmail.com](mailto:denny3782@gmail.com)

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.

The following repeaters do not belong to our club but provide good signals for many members.

Mount Major VK3RDU repeaters and TX operating frequencies, 146.850 MHz and 439.875 MHz

UHF CB Repeater Mt Wombat Channels 3- 33

28/6/2018

**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.

President :- Peter Rentsch

VK3FPSR

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Membership Sec :- Pat O'Shannessy

VK3OV

Station Manager :- Vacant

Publicity Officer: - Vacant

Communications Managers (External Events):- Bruce (VK3PNF) 0427 715 663 & Darren (VK3HEN) Glasson

Technical Committee :- Phil VK3ELV, Ray VK3RW, Geoff VK3ZNA, Kevin VK3BPH & Rodney VK3UG

Newsletter :- Rodney VK3UG (Editor) [rodlynn6@bigpond.com](mailto:rodlynn6@bigpond.com) Peter & Andy (Printing/ Distribution)

## Presidents Report June 2018

A fruitful meeting with a great attendance was the order of the day for our May meeting. Thanks to all those who made the effort to attend and I hope you learnt something on the day.

Thanks to Michael VK3FMAA who arranged for the Nationals Candidate for the State Election, Peter Schwarz to attend our meeting. Peter is interested in maintaining the old Radio Australia site as a Heritage site and is happy to support us in our endeavours to perhaps use this location as home for the Shepparton and District Amateur Radio Club. A committee of three consisting of our Treasure Graeme, Michael and Rod are working to get the ball rolling. Thanks for putting your hand up gents to help get this process under way.

On a couple of cold frosty and foggy mornings on the long weekend in June some brave Radio Amateurs were seen amidst the steam of the Annual Steam Rally in Echuca. Again we were in attendance at this event with our gazebo, club signs, squid poles and radios promoting Amateur Radio. Not only were we in attendance but Rod had organised for some Vintage Radio equipment to be on site for the attendees to look at. Lots of interest was generated and it was a good couple of days. Thanks to those who put in the effort to help with this and without Bruce, Andy, Rod, Mark, Barrie, John, Dave and Graham (if I missed anybody I apologise) to help it would not have been successful as what it was. Thanks again guys for all your help.

A brief report this time - I am in the midst of closing down the Bookshop as a retail store, and also the Computer shop. As of the 13<sup>th</sup> July there will be no Retail Bookstore in Cobram but we will continue to operate [radiobooks.com.au](http://radiobooks.com.au) from our home plus some other select work within the book industry that Karen and I do for a number of regular clients. Am I retiring, well no, I have been offered a contract with another Computer Store in Cobram that I would be silly to ignore. So back to full time work commencing the 17<sup>th</sup> July for 12 months and then hopefully part time for 12 months and then finally, time to put my feet up. But who knows! As they say – whoever “they” are – “The only consistent thing about change is change itself”

As BBQ's are a great way to chat about our latest project I thought we would do that again this month to catch up on what's happening.

So, our next meeting will be **a BBQ starting at 11.00AM** followed by our regular meeting at 1.00PM.

That's it for me for this month. Till next time,

Cheers & 73

Peter – VK3FPSR

President – SADARC

## Calendar of Events

**July 7<sup>th</sup>** – Regular Meeting at Mooroopna 1.00pm (note President Peter will be away at GippsTech) with **BBQ etc starting at 11am**

August 4<sup>th</sup> - Regular Meeting – start to finalise Hamfest

## **SADARC meeting minutes 2-6-2018**

Mooroopna Club Rooms

1:00 pm.

Apologies : VK3FALN Alan, VK3ZE Huntly, VK3TEX Les, VK3ELV Phil, VK3HEN Darren.

In attendance: VK3FCVT Graeme, VK3FPSR Peter, VK3AJA Andy, VK3PGK Graeme, VK3PNG Bruce, VK3PXJ John, VK3UG Rodney, VK3COP Ron, VK3FMAA Mike, VK3KJB John, VK3BPH Kevin, VK3BF Allan, Stevo, VK3KBY Barrie, VK3EB Dallas, VK3DSF Max, Washo and Bill, VK3OV Pat, VK3KMF Mark, VK3ZNA Geoff, VK3ASK Peter,

Inward correspondence: Letter from Peter VK3ASK re- new meeting rooms.

Outward correspondence: none.

Guest speaker: Peter Schwarz.

Minutes of last meeting, Read by Peter, moved by John.

Reports:

Financial:

read by Graeme. Second by Graeme(VK3PGK).

Technical:

Read by Rodney.

A comprehensive report was ready by Rodney covering in great detail the works at Mt Wombat.

This should answer any questions on repeater site status.

It was noted by Rodney that the 2m repeater replacement has taken far longer than He would have liked, He explained why. The club has thanked the Tech. committee for its work.

Moved by Geoff, second by John.

General Business:

Peter Schwarz has spoken about Radio Australia Building. He has advised that we should put together a proposal and give it to him to submit in parliament. Peter has explained in detail who owns site and how SADARC could make some difference in the decision to sell it.

A sub-committee has been created to do some of this research/work. It was suggested by Peter to get history of R.A. and SADARC and approach perhaps Science Works of similar about perhaps making R.A. site a living museum.

Comprising of: VK3UG Rodney, VK3FMAA Mike, and VK3FCVT Graeme. This was moved by John (PXJ) and second by Graeme (PGK) All agreed.

Echuca Steam Rally report read by Bruce, All is organised for next week's Rally and Members have sorted out who attends on what days.

We all agreed to pay Bruce for the magnetic "SADARC RADIO COMS" signs he has purchased for cars, but not to purchase any more just yet. Graeme VK3FCVT informed us he has ability to make same and also promotional items such as mugs, mouse mats and stickers. We all are very excited to see what he can do. All agreed.

Pat has explained the 2 cheques will be required for HAMFEST as is the norm, all agreed.

Graeme (FCVT) has done some work on the club webpage and will contact Ray Gardiner so he can upload it. All agreed.

Barrie (KBY) will chair next meeting as Peter will be absent. Meeting closed 2:00 pm

## **The 55<sup>th</sup> annual Echuca Steam Rally 9/10<sup>th</sup> June**

The park where the event was held was typically rather wet and slushy particularly on the Saturday. Wearing your Sunday best was not recommended. The Shepparton and District Amateur Radio Club (SADARC) had their gazebo up complete with their advertising banner, accommodating both their communications equipment displays as well as domestic vintage radio equipment supplied by the North East Vintage Radio club. Our two clubs enjoy a good working relationship and at such displays as at the Steam Rally the two displays complement each other.

The display had some up to the minute amateur radio transceivers including a portable low power radio station which could easily be run off a small 12 volt SLA battery. Several vintage radio sets starting off with a late 1920's four valve TRF receiver were on display.

To alert visitors to the display there were two 10 metre squid poles antennas erected. They were tried from time to time for communications on the amateur radio bands but it is hard to compete with the noise of the environment. The Rally's PA system was loud and persistent; the pipe band was more enjoyable. However, there were quite a few of the general public that gave the display more than a cursory glance and long term hopefully some will consider either joining the amateur radio or vintage radio fraternity or both.



**Our worthy competitors, the Bendigo Clan McLeod Pipe band practised alongside our gazebo.**

**Note the 10 metre squid pole antennas on our site.**





**Some interested visitors**



**Some more interested visitors and Graeme VK3PGK showing visitors his low power portable amateur radio station.**



**The Steam Rally set up with vintage TV in background    Bruce and John cooking the snags at the club BBQ**

**At the SADARC meeting on 2<sup>nd</sup> June the following report was given to members to provide them with comprehensive information about the repeater system on Mt Wombat. Things that members may not have known about or were misunderstood.**

### **Why was/is the upgrade of the repeater site necessary?**

#### **A short history of the legal aspects of our Mt. Wombat site.**

Back in 1979 soon after the forming of the Shepparton Amateur Radio club (SADARC) the club decided that they wanted to site a club 2 metre repeater on some high location which would cover the Shepparton area. Initially they looked at Mt Major but it was suggested that Mt Wombat would be a much better location. By 1982 having got all the approvals the building on Mt Wombat was constructed, equipment assembled and tested it was then installed and made operational in mid 1982. The approvals etc were obtained I understand via Marg Gillies who had some political influence.

All went well for several years then the State government authority that administered significant hill sides and mountains decided that rental on such sites were a good milking cow and raised the lease fees to a level well in excess of \$1000 per year, a level that the club could not afford. Up until then we were in control of our own destiny.

The Victorian Division of the WIA stepped in (probably via Michael Owen VK3KI (SK) a lawyer and member of the WIA executive) and they negotiated with the powers that be a much more equitable arrangement if all sites affected came under the umbrella of the WIA. This meant that they took over the lease from SADARC. The fees were a much more affordable at less than \$100 per site including licensing which were paid for by the WIA. We maintained the site and all went well although I think most of us were unaware that as we did not hold the lease we ultimately would have much less say on what happened on the site – as has happened.

When the WIA divisions were abolished the Vic Division passed the lease over to Amateur Radio Victoria (ARV). This was when we came to have concerns about what we could and could not do on site (2015). We were told that there were many many things wrong with our site – some were true and many others were definitely not correct which were quite hurtful to us. We were concerned about what would happen on the site and our then president Greg VK3POP at the request of the club obtained legal advice about the club reclaiming the lease. The opinion was that yes we could probably get the lease back but the legal cost of doing so would probably exhaust all of our funds and maybe more. It was decided that we enter into discussions with ARV to make sure that (particularly with Peter Mill and Ross Pittard) reasonable compromises could be made that would achieve what both parties wanted/needed, as our emphasis differs in some ways from what ARV believed should be on Mt Wombat.

### **What did ARV and SADARC envisage for the site.**

ARV said that the equipment in the hut would be replaced with newer equipment that would meet higher standards, that all the antennas and coaxial cables would be replaced mostly with new materials, the lattice tower would be replaced with a freestanding 25 metre tower that would accommodate any antennas and expected antennas into the future, that Austereo would place links for their services in the building and 19" equipment racks would be installed in the hut. All of these items with few exceptions were either to be supplied by ARV or Austereo. This upgrade has cost us around \$1,000 to \$1500, plus time, but the total upgrade of the site is well over \$100,000 (I've been told nearer \$175,000). So we now have a very good modern site at little cost to us and ARV and Austereo have a site that suits their requirements for many years to come.

Whilst this was a great offer it was made initially without any input from the club which did upset us. Negotiation as I said earlier did cause a number of alterations to the projected re-vamping of the site to take place which was a case of give and take on both sides. Overall this caused us to stop doing anything much on the site for around three years - until late last year.

Back last year work began on the site with the mast being installed (we even got a better track to the top of the mountain thanks to Austereo). Alan Tattersall of Austereo did much of the work on the removal of the equipment from the hut and the installation of the 19" racks. He did a great job. By doing this and removing the centre pole from the inside of the hut it became much easier to do things. I might add we were going to upgrade the interior of the hut several years ago but didn't start due to the various negotiations going on. The interior of the hut whilst it was looking good in 1982 it did grow like Topsy and before the interior of the hut was gutted it was a dog's breakfast – nothing for us to be proud of.

The site was established around 35 years ago, and commercial radio communications sites since that time have needed to be upgraded in a variety of ways so that inter-modulation, cross modulation and things like dissimilar metal problems and the commonly known one of "rusty bolt" interference are minimised or eliminated. Even the metals that coaxial connectors are made of can cause problems. You may say we are not a commercial site; well we are because of our location on top of Mt Wombat where over a hundred frequencies are used on adjacent sites. There are some things on the top of the mountain that should be dealt with that could create interference but so far none have been proven to be a problem to us or others – yet.

## Doing the work

As mentioned above quite a lot of work was done by others and we had done little as only about one member has a climbing certificate. We were able to retain our large 2 metre antenna which resides on top of the tower and another 2 metre antenna of almost the same gain is placed part way down the mast. On 70 cm there are from memory four UHF antennas and the six metre double side mount folded dipole array. There are also antennas for links sometime into the future, and an antenna has been provided for the UHF CB repeater. On the hut we have a 70cm antenna for the 5 MHz split UHF repeater (which is now working) and the standby 6 mx side mount dipole.

ARV has provided a Tait 2 metre repeater (still to be installed once the modifications needed are complete and tested), and a 7 MHz split UHF 70cm repeater was installed by ARV and works very well. There are moves afoot to install a DMR repeater and re-install the long out of service D-Star repeater. Both are UHF services. These will have a connection where required to the internet in the future. This is being actively pursued and looks like being a goer at little or no cost to us. The club agreed that Ray Gardner can fit his TTN network too.

The 6 mx repeater had a minor physical modification done to it so it would fit into the rack. The cavities needed attention physically and were retuned. The system was re-installed and users generally are finding it a pleasure to use with good range and clarity. The FM828 was installed in 2010 and the improved FM814 in 2013.

The current two metre repeater (FM814) we have used for a number of years needed an overhaul to bring it up to as close as possible to commercial standard. It was believed this could be accomplished within a couple of months from when it was taken out of service. However, the best plans of men and mice sometimes fall in a heap. The upgrading took much longer than expected then for a reason unable to be diagnosed for quite some time the controller could not be made to work as it should. It appears that the programming in the original PIC and the later ones had somehow become corrupted. It is most unusual to have more than one item with the same problem – and very confusing. And this is the reason why it has been so long in coming on air again. Additionally Geoff is in the process of shifting house which has meant that he could not give the repeater attention to the degree that he would have liked. With the benefit of hind sight instead of endeavouring to do so much work on the existing repeater we should have decided to put it back temporarily into service. Then when we had the new (to us) TAIT repeater fully operational with necessary modifications we could have taken the existing FM814 out of service and dealt with its upgrade at leisure. The TAIT repeater is potentially a higher performing piece of equipment than the FM814 and will give an improvement in performance. We apologise for this miscalculation.

An upgraded PIC controller is expected to be available, programmed and tested within a few days and all going well the 2 metre repeater will be on air shortly afterwards – if access is reasonable to Mt Wombat.

The UHF CB repeater is operational but there is some concern that it is not working as it should. This repeater is not one of our club's repeaters; however we endeavour to assist with keeping it going.

The DC control system was designed and installed to protect the repeaters and the batteries. We now have two power supplies (supplied by ARV) either of which can be switched into service as required. We have had



quite a bit of trouble with power supplies over the years due to lightning spikes damaging the power supplies and then the equipment supplied from them. The last episode cost the club around \$700 in repairs. The DC controller should prevent damage to repeaters and the batteries, although nothing is completely immune to the effects of lightning.

Wherever possible we have endeavoured to have a main and a back up repeater for each service as it isn't practical to do much up on the site when a breakdown occurs. We are still working to that end.

### **Comments and Summary**

There are five members of the Technical Committee who look after our repeater site on Mt Wombat (799 metres) which is 14 kilometres South East of Euroa in the Strathbogie Ranges. They individually or with others travel there one or more times per year to check the operation, do upgrades or to do maintenance work. Access is via a made track that can be rough and when wet must be negotiated carefully. A chainsaw can be handy if a tree falls over the track. We are volunteers and within the technical committee we have a variety of skills so that individual members can concentrate more on their particular area of expertise.

What equipment do we use to do much of the work? We use multimeters, clamp meters, high quality Signal Generators, Spectrum Analysers, Dummy Loads, SWR bridges, Antenna Analysers, Binoculars, Cameras, and many other items such as our trustworthy soldering irons, etc. Some of this equipment is expensive and is privately owned by members of the committee. We want the best for our repeater site as we want our repeaters to some of the best in Victoria maybe Australia.

A feature of our repeater site is its ability in the time of an emergency that the both the 2 metre and the UHF CB repeater will remain on air if there is a power failure and/or outages due to technology failure like Telstra had recently. A battery bank supplies enough power for around two days of service. That is enough time for most power or technology services to be restored or if not, for us to arrange battery charging and keep our system running for the benefit of the area not just us as amateurs. It is our long term aim to also have two repeaters for each service as mentioned above. The idea of this is that should one fail the standby repeater can be installed in its place and the failed item then repaired at leisure. We are working to that happy result and possibly that aim will be accomplished by the end of the year.

We have been asked from time to time when we can expect to have the repeater back on air. Due to the problems espoused above, things didn't go the way we (the technical committee) wanted and each month we had to say what we believed would be the time when the repeater would be on air. Sadly we got it wrong. Most members were understanding (we do have a back up with VK3RDU but our back up original FM828 repeater has disappeared!), but one or two have been rather nasty about the whole thing which is disappointing, including virtually saying that we didn't know what we were doing. Could they do any better! Come and talk to us and we'll tell you what we can about what we are doing. Sometimes we have nothing to add to previous reports.

Compiled by Rodney VK3UG, Geoff VK3ZNA and Kevin VK3BPH

## Editor's Ramblings

- **Sorry to report the 2 metre repeater is still not on air. Geoff VK3ZNA, Ray VK3YNV, Josh (Ray's son) and Rodney VK3UG went to Mt Wombat today 28<sup>th</sup> June to install the 2 metre repeater. All went well with equipment placed neatly in the rack with appropriate cabling made up and the DC controller installation completed. The problems with the repeater controller have been fixed but then the transmitter decided to break down. The repeater had been tested for several days but it seems we are having a number of gremlins still in it and it has been brought back to Shepparton for further work.**
- It was pleasing to see David Voight back after quite some time recuperating in hospital after a very nasty fall off his motorbike. Keep on keeping on David. Good to see you at the Steam Rally.
- **Think about this seriously chaps. The most common cancers in men are Colon and Prostate. Recently when talking with club members it became apparent that many have or had Prostate cancer. For both of these cancers it is important to have regular checks about every 12 months, particularly as we get older, and if anything doesn't feel or seem right in these areas see your GP pronto. Catching one of these nasties early is much better than being too late.**
- One of our repeaters on Mt Wombat has 91.5 Hz sub-audible tone access. All of the other repeaters have 123 Hz sub-audible tone access and noise/carrier mute. One member has queried why don't we have 91.5 Hz on all repeaters like many other repeater sites do? 91.5 Hz is more common but 123 Hz is used in a number of places. Your thoughts?
- Radio Australia is not dead yet and hopefully we may get it up and running again to provide an alternative view on matters in the South Pacific and South East Asia. Graeme Martin VK3FCVT, Michael Nowasad VK3FMAA and Rodney Champness VK3UG are a committee formed to gather and present information to Peter Schwarz (candidate for the forthcoming Victorian election) on this subject who has the ear of the Commonwealth Deputy Prime Minister. We may through our actions get it running again, but if not we could perhaps have it retained as an active museum. Could be good as a club meeting venue if the antennas were still available – think of the performance with a 20 dB HF antenna hooked up to your rig. If you have thoughts put them in writing to one or more of the three members of the committee, please.
- Ray VK3RW reports that Bruce Plowman VK3QC recently passed away at the grand old age of 99. Our commiserations to Muriel at his passing.
- Over the last few months some members of the club have been active in assisting other members with antenna problems. A couple of amateurs have had work done on their antenna systems. If you are having trouble with your antenna system it is suggested that you contact the club committee and help to sort out some if not all the problems may be able to be provided.
- **SADARC members are cordially invited to the next Vintage Radio Club meeting at 1.30 pm on Saturday 28<sup>th</sup> July at the RISE centre in Packham Street, Shepparton. Parking is in the centre yard. The subject of this meeting is vintage and not so vintage communications receivers. One of these will be a Watkins-Johnson 8716 (top shelf communications receiver - many drool over these receivers). You can contact Rodney VK3UG 5825 1354 about this display and discussion.**
- A couple of club members have lashed out big time and bought Pixie 7 MHz transceiver kits. We'll have an article about this and other small transceivers in later newsletters.