



Founded 1979 Incorporation No A6677 P.O. Box 692, Shepparton 3632  
December 2020, January 2021

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

53.725MHz (-1 MHz offset), **In Service**

146.65MHz (-600 kHz offset), **In Service**

438.2MHz (-7 MHz - offset -D-Star), **In Service**

438.650MHz (-7 MHz offset and 91.5 Hz tone access only), **In Service**

438.900MHz (-7 MHz offset- DMR repeater), **In Service**

439.775MHz (-5 MHz offset), **In Service, IRLP (node #6990)**

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

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

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

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.

Meetings occur on the first Saturday of the month from 10 am for informal chats and technical talks. A BBQ follows (a gold coin donation) then the business meeting at 1 pm (except January when no meeting occurs) at Vision Australia, Channel Road (just off the southern end of Archer Street), Shepparton.

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

Website – [www.sadarc.org](http://www.sadarc.org) or [www.sadarc.org.au](http://www.sadarc.org.au) Face book - [www.facebook.com/sadarc.org](https://www.facebook.com/sadarc.org)

Info for the page contact - Denny French on [denny3782@gmail.com](mailto:denny3782@gmail.com)

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

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

Mount Major VK3RDU repeaters, TX , 146.850 MHz and 439.875 MHz 29/01/2021

**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

Vice-President: - Barrie Halliday

Secretary: - Andy Ashley

Assistant Secretary: - Geoff Angus

Treasurer: -Andy Ashley

Membership Sec: - Andy Ashley

Webmaster: - Ray Gardner

VK3AXI

VK3KBY

VK3AJA

VK3ZNA

VK3AJA

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

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

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

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

## **Presidents Report January 2021**

Welcome to 2021. HappyNewYear to all members and to others that receive this Newsletter. Karen and I hope you had a good Christmas and Happy NewYear. Personally, we had great festive Season, but it was very busy with travelling and visitors.

2021 we hope, will be a year of reasonable normality where we can get to meet face to face again albeit perhaps with some minor modifications for COVID 19. With this in mind it is planned that **our next meeting will be held on the 6<sup>th</sup> February at the Vision Centre in Shepparton.** I would also like to have **a BBQ prior to the meeting** so as we can have a long overdue face to face chin wag.

We also need to carry out our AGM to make up for the missed meeting in October so we will try and keep it short so that members get lots of time to talk.

As we have missed most of our face-to-face meetings for 2020, I would like to take this opportunity to thanks all those members who still made the effort to join our on-air meetings and continued the Club in its usual manner of friendship, education and mutual respect. We have a good solid Club so lets now build on that during 2021. More on this topic in the next Newsletter!

Cheers for now.

Peter Rentsch    President

## **CLUB CALLANDER**

6<sup>th</sup> February 2021 – Regular Meeting – Vision Centre **BBQ if not a total fire ban.**

6<sup>th</sup> March 2021 – Regular Meeting – Vision Centre BBQ if not a total fire ban – Long Weekend

3<sup>rd</sup> April 2021 – Regular Meeting – Vision Centre BBQ – Easter Saturday

## **Repeater Updates.**

On the 16<sup>th</sup> of December Paul Watters VK3YLS and his riggers from Rubicon journeyed to Mt Wombat for antenna remedial work.

The new 2 metre antenna was installed on the top of the tower at Mt Wombat. The existing antenna was hardly existing as it had splits in the fibre glass radome, the cap off the top had disappeared and the antenna had had quite a bit of water in it. No wonder the performance was very pedestrian. Further tests on the total performance of the 2 metre repeater will occur when the original cavities are completely refurbished by Geoff VK3ZNA and a variety of comparison tests can be made – sometime into the New Year.

That evening on the club 2 mx net both Les VK3TEX and Rob VK2ACR who are both towards the extremities of the service area were quite easily able to access the repeater with quite low power. So if you have a reasonable transceiver and a functional

antenna you will do very well with the repeater now. However, this is not an encouragement to have a very poor set up, after all most amateurs aim to have a quality station, but not necessarily with the latest gear etc.

As many will know we have been disappointed in the performance of the 6 metre repeater. A few things were found – the spacing between the dipole and the reflector on each antenna was not the same so this was corrected as this may have slewed the signal skyward - not many of us fly space ships. The two antennas were moved to a more westerly direction which may assist with contacts to Melbourne and Geelong. A comparison test of the hut antenna and the tower antenna shows now that the twin antenna does give a greater signal at a distance compared to the single antenna which is most encouraging. However I (Rodney) am not sure that the connections on the cavities are as good as they should be as the performance is down on the 2 metre repeater. (Work still to be done here).

The surprise packet for the visit was the UHF CB repeater. There was a problem with the antenna on the tower (had water in it) and the one on the hut was transferred to the higher location. The performance of the UHF CB repeater is such that it is a rival to our 5 MHz split UHF repeater which runs more power. (No work is needed on the UHF at this stage.) This repeater can be used by emergency users/services and will give them good performance during this fire season. Hopefully they won't need it. It is quite audible as far afield as Rochester and I'm sure others further afield with good high antennas will be able to access it.

## **Technical committee meeting 26<sup>th</sup> January**

The old 2 mx antenna was visually inspected and the committee believes it should be disposed of and suggest this be discussed at our forthcoming meeting on the 6<sup>th</sup> February.

The repeater site was established in 1983. It has grown greatly since then. All repeaters now have 50 amp Anderson type connectors for power supply for more reliable operation. The committee believe that the power board in the hut and the circuit breaker at the fire watch tower should also be replaced for better reliability – there have been some unexplained power drop outs.

Josh and Ray reported that the new power management system is working well. A number of parameters are monitored such as each repeater's current drain, when it is used, how much it is used, battery charge and discharge. Facilities are available if necessary to switch various services on or off remotely to correct problems, mains outages, etc. As has been the policy in the last few years, which as yet has not been fully achieved, is to have a backup system available. With this in mind the committee would like approval by the club to finance another power management panel of Josh's design.

The power management system has highlighted a problem with the 6 metre repeater in that it is being keyed up a lot with no communications occurring. It is thought that this is due to weak signals of various sorts are being picked up by the repeater from near and far. To overcome this, the committee is thinking that the repeater should be tone only access. This would mean that all who use or intend to use the repeater would need a tone board in their transmitter set to 123 Hz. Most have tone boards in their rigs but a few may not. Geoff VK3ZNA has a few boards that could be fitted. Tone boards may still be available from the Hunter Valley Amateur Radio club too. (Personally I

would rather we did have both tone and noise mute if the noise mute could be set higher, but this may not be practical, Rodney).

The existing repeater using a modified FM814 (25 watts output at the moment, capable of 50 watts) caters for noise and tone access whereas the proposed replacement repeater (50 watts) only caters for tone access.

Some temporary work on the connections and cables to the 6 metre cavities is to be done soon.

Peter VK3AXI has reported that he is having trouble hearing the 2 mx repeater since the work done on the tower back on December 16<sup>th</sup>. This may be due to the 6 mx repeater antenna being moved slightly and perhaps creating a transmission null towards Cobram. Performance towards Cobram particularly on UHF has always been impeded by Mt Major to some extent. Some checking will be done soon to determine what is causing the drop in signal level with Peter, by checking the performance of each 2 mx antenna in the Cobram direction. Ultimately it is expected to use the original 6 cavity resonators so that the one antenna can be used. Geoff is upgrading these. Is your antenna and receiver working at its best, Peter? Maybe a beam on both 2 and 70cm is needed long term due to the partial obstruction of Mt Major.

Moves are being investigated to reinstate the Packet repeater which will allow better remote control of the equipment on the repeater site.

To summarise - (1) Approval to finance a standby power management board, (2) finance upgrade of the electrical switch board and circuit breaker, (3) do we go tone exclusively on the 6 metre repeater, (4) disposal of the old 2 metre antenna.

## **Editor's Ramblings**

The end of year get together with the Vintage Radio Club on the 5<sup>th</sup> December 2020 was a great success. Due to some catering problems the site for the luncheon was changed to Noble Monks in Shepparton. Despite the rather changeable weather on the day it was interesting to say the least that the marquee remained in place despite quite high winds.

It was uncertain how many would come with their wives, friends, etc, but there were over 40 in attendance with people enjoying quite a chat and a good meal. Many were not members of either club and we hope that they will join one or both clubs. Many members of SADARC belong to both clubs. Certainly they will be invited to attend our February meeting which should go ahead due to Covid 19 restrictions being eased.

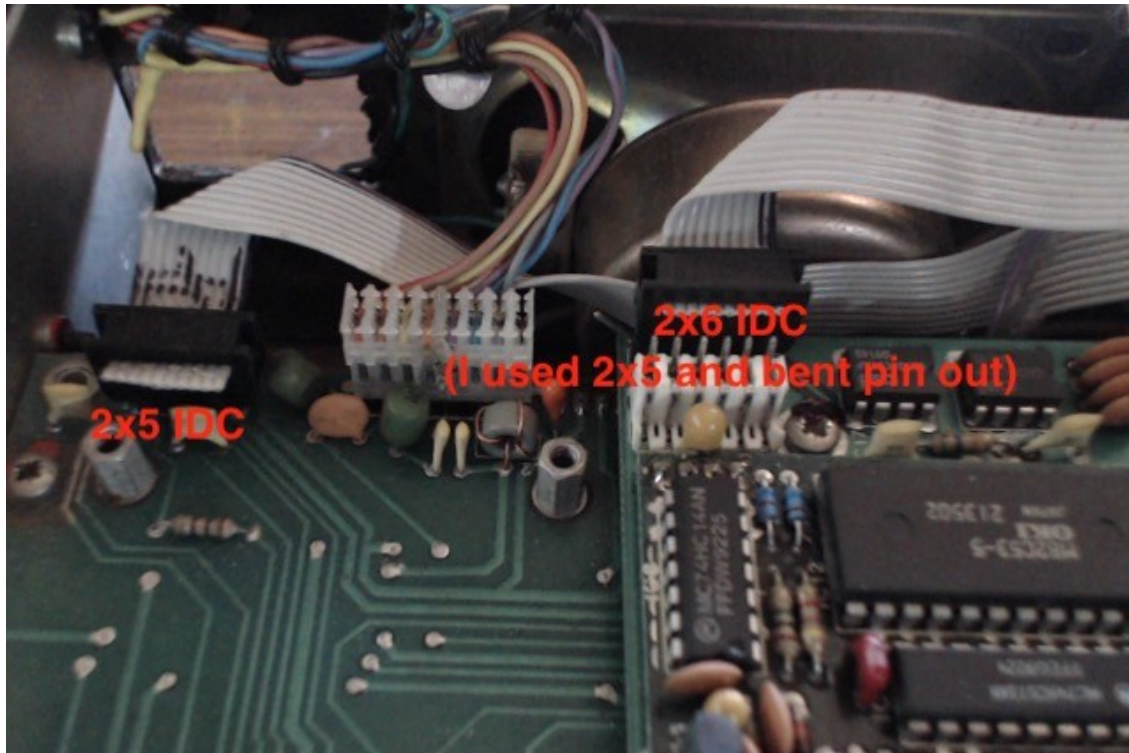
- Anyone wishing to contact the club can contact the Secretary on his email address in the newsletter header.
- Do members want changes to the newsletter and its format. Any ideas will be considered and implemented if felt they are reasonably easy to do and beneficial to members.
- This last year has been a time when members have been restricted by the Covid 19 problem. During this time members have been overhauling their antennas, station layouts, equipment, buying such gear as accessories, transceivers, linears, adopting the use of new modes, you name it. In a number of ways it was a productive year.
- As at the beginning of December all repeaters are performing well.

- Geoff Russell has upgraded his callsign to **VK3GSR** in recent times. Now is the time to upgrade your licence, so go and see Andy or one of the other assessors to do it. It isn't hard to do and like Peter **VK3AXI** we expect this of both of you as the next stage of your experiences in amateur radio.
- Look out for sporadic E transmissions on the VHF and UHF bands. Most of this may have come and gone by the time you get the newsletter.
- I recently received an email from Ray VK3RW. He had been talking to a DJ from 3NE (1566 kHz) who told him 3NE is going to change to FM in about a year's time from a site in the Warby Ranges.
- ABC station 3RN (756 kHz) at Boorahman NE of Wangaratta went off air on Friday the 8th January at about 2 am having suffered a major breakdown. Diligent work by Broadcast Australia staff had a lower powered emergency transmitter in service Saturday afternoon. I wonder where they had to bring the emergency transmitter from?
- Members will know that Denys VK3ZYZ has and is most helpful to members who are interested in the Arduino devices that he has got going. Things like VFOs, interesting digital displays., etc. which make older equipment useful again like the Codan 8525 series of transceivers. Denys and his family are involved in a number of charitable causes. Their deceased grandson Marcus developed incurable Batten disease which is fatal within a few years. The family have been heavily involved in fund raising for research into this rare but extremely nasty disease. An article on the disease and their work was published in Shepparton News for 11/1/2021. There was a good photo of Denys and his family on the front of the paper.

**This is the 4<sup>th</sup> and final article on Denys VK3ZYZ's conversions on the Codan 8525 series of HF sideband rigs.**

Connections from the VFO board back to the Codan are all on the 2x10 IDC lead. This is split to one 2x5 IDC plus that goes to the Codan main board "P5", and a 2x6 IDC plug for the Codan "P1" (The picture shows a 2x5 and one pin bent out off the way as I did not have a 2x6 IDC plug handy).





Here is the overall view, showing the 2x10IDC and the Codan keypad connections.



The “Clarifier” buttons are used for the band selection now., while “Channel” is the tuning.

“Scan” and “S/Call Mute” are the digit select < and > respectively.

At this time, “Emergency Call” and “Call” buttons are not used.

Using the “Channel” keys, the frequency can be stepped up and down in steps selected by the digit keys, so the minimum step is x100Hz. Holding the “Channel” keys down auto repeats so the band can be quickly tuned.

USB/LSB works as it should, as does the Power OnOff, Audio Mutte and Mute Off.

Work still to come is maybe a meter, based on another OLED display mounted in the old thumbwheel switch hole, to show power and S meter etc.

Boards will be made available shortly, along with the source code.

Please feel free to modify the code as you want.

The intention is to get this working for both the 8525A and 8525B.

Denys VK3ZYZ

**Thank you Denys for this series of articles. You can see more of Denys’s ideas on the Club Forum on the internet [www.sadarc.org.au](http://www.sadarc.org.au)**

When everything's coming your way, you're in the wrong lane.

Birthdays are good for you. The more you have, the longer you live.

Some mistakes are too much fun to make only once.

We could learn a lot from crayons. Some are sharp, some are pretty and some are dull.

Some have weird names, and all are different colours, but they all live in the same box.

A truly happy person is one who can enjoy the scenery on a detour.

Save the earth.... It's the only planet with chocolate!

The following pictures of the end of year luncheon are courtesy of Marcus Chick the Vice-President and Newsletter Editor of the Vintage Radio Club. Thanks Marcus.





**Some earnest discussions and “What is this I’m supposed to eat?”**



**Eric VK3BXA and others enjoy a joke.**





**Denys VK3ZYZ reading his award for his significant contribution to the club Forum**



**Members of both clubs listening to the end of year talks by both club presidents**