



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).**
- 438.650 (7 MHz offset and 91.5 Hz tone access), **Operational.**
- 439.775MHz (5 MHz offset), **Off-air (to be refurbished).**

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

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	pages.cobram@bigpond.com
Secretary:- Andy Ashley	VK3AJA	andyashley@icloud.com
Vice-President:- Barrie Halliday	VK3KBY	
Treasurer & Webmaster:- Graeme Martin ,	VK3FCVT	biftek@gmail.com
Membership Sec: - Pat O'Shannessy	VK3OV	
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)

March 3rd get together - BBQ 11am then meeting 1pm.

Note as at 21/2/18 the following services are operational – new analogue 70cm repeater (438.650 MHz – 7 MHz frequency split, 91.5 Hz tone access), 6 mx (53.725 MHz -1 MHz frequency split, 123 Hz tone or noise mute access), and UHF CB repeater channels 3-33. The other repeaters are being refurbished and will return to service as soon as restoration/upgrade is complete.

Shepparton and District Amateur Radio Club Meeting -1:00 pm 3/02/2018

- In Attendance were:

VK3KBY Barrie, VK3UG Rodney, VK3KJB John, VK3PGK Graeme, VK3PNG Bruce, VK3FALN Alan, VK3FNQS Jason, VK3DSF Max, VK3OV Pat, Bill Crocker, VK3CHV Ian, VK3PXJ John, VK3COP Ron, John "Stevo" Stevens, VK3AFD Arthur, VK3ZNA Geoff, VK3XNW Neil, VK3KMF Mark, VK3MAR Terry, VK3BPH Kevin, VK3GMV Wayne, VK3EB Dallas, Peter Simpson, VK3HJ Luke (Guest speaker)

- Apologies:

VK3ZE Huntly, VK3AO Alan, VK3POP Greg, VK3HEN Darren, VK3NQS Colin.

- Confirmation of Minutes of previous Meeting

No meeting in Dec. as was Xmas.

- Matters arising from the Minutes

None.

- Inward and Outward Correspondence

In: cheque. (Donation)

Email from Tony Fella.

Out: None.

- Reports

- Financial:

Read by Graeme. Spoke about moving account to Bendigo Bank as they have accounts for Not for profit Clubs like SADARC with no fees.

This was moved by John W. and second by Rodney C.

All were in favour.

Also moved Kevin R. was to invest some money in high interest account.

Second by Barrie H.

All agreed.

- Technical:

Read by Rodney. Fantastic job done at Mt. Wombat.

Detailed report delivered. Moved by Jason J. Second by Graeme K.

- General Business

Suggested webpage be access by Graeme(Treasurer) as He has had experience in this field.

Moved by Geoff A. second by Jason J.

All agreed.

Meeting Closed 1:55 pm.

Presidents Report February 2018

What a great roll up for our first meeting of 2018. It was great to see such a great attendance after our small break. Thanks to all those who made the effort to attend. A special thank you to Luke Steele VK3HJ who spoke to us about his DX experiences. Transmitting from not much more than a Sand Dune (Mellish Reef) in the Pacific Ocean is not for everybody.

I hope everybody is using the new 70cm repeater on Mt Wombat. I have heard Jason VK3FNQS and Colin VK3NQS on this repeater. I hope others are using it as well. Remember it has a 7 Mhz offset. Some questions have been asked as to why the 7 Mhz offset as opposed to what was the originally used. The 7 Mhz offset was adopted by ACMA and the WIA in 2015. This will be the new standard. As a 70cm repeater, it works really well for me in Koonoomoo. Note, if you draw a straight line from my location to Mt Wombat, Mt Major is in direct line, Therefore I am receiving and transmitting on this repeater even though Mt major is in the way.

We as a Club are still keen on locating to a more suitable venue for our meetings. So, please keep your ear to the ground for a possible venue. A building in the Shepparton or Mooroopna area would be ideal. We would like something that we can set up on a permanent basis. Somewhere we can call home, somewhere to run training courses, somewhere to meet for a coffee during the week, somewhere to run JOTA in a less confined space and somewhere where we can create a presence in the Community.

As we can see from the Calendar below our Annual get together with the BAREC group is scheduled for the 18th of March at Goulburn Weir. Hopefully by making this event a month earlier we will have some more pleasant weather. So please keep the 18th free to attend our BBQ and perhaps if you have any electronic related trash and treasure you would like to sell bring it along and you never know you may go home with more \$ in your pocket that when you arrived.

Our next meeting for the year will be on Saturday March 3rd. Hopefully we will get a lovely Autumn day for a BBQ. We have not had a Show and Tell for a while so I would like to see any of your projects you are working on. Any form of electronic project is suitable for Show and Tell. It does not necessarily have to be Amateur Radio related. It can be Vintage, it can be current, it can be Raspberry Pi or Arduino or it can be something that is in the back corner of the shed and you are not sure what it is so bring it along and we will see if we can identify the device.

That's enough ramble from me and I look forward to seeing you for a BBQ and meeting on the 3rd.

Cheers & 73 Peter – VK3FPSR President – SADARC

Calendar of Events

**March 3rd – BBQ at 11.00am followed by our regular meeting at Mooroopna.
Show n Tell that new project.**

March 18th – Get together with BAREC Club at Goulburn Weir – earlier this year to try to pick better weather! Electronic Trash & Treasure Sale.

April 7th – Regular Meeting at Mooroopna

DXing by Luke Steele VK3HJ

An interesting talk was given by Luke at our recent meeting on the subject of DXing. It was obvious that Luke is certainly a dyed in the wool DXer. His location is on a rural property with a number of hectares of area on which he has put a number of high performance fixed and rotary antennas. They are mostly HF. He uses many of the DXing websites which alert DX hounds to DXpeditions and the right time for propagation to give them a call. This is the info that most of us would require along with the absolute dedication to this form of amateur radio activity.

There is the other side of the story and that is being one of the DXpeditions participants. This requires plenty of spare time, money and a willingness to go to some rather remote and sometimes difficult places to work from. Luke is one of these people. Luke also writes a DX column in *Amateur Radio* magazine.

I am not a DXer although for 12 months I was a sought after DX from Macquarie Island (VK0CR). As a DX site I was sought after but never contacted the many thousands of stations that Luke and his co-operators do on their short term DXpeditions. I did tote up around 97 countries and made a few thousand contacts but amateur radio in long term DX locations such as the Antarctic is only a part time activity.

An interesting talk and I would recommend that any amateur interested in DXing that they contact Luke for more information.

When I get some space I will include the text of Roger VK2RO's article that he wrote several years ago for the newsletter on this subject. It is quite a lengthy article and for anyone interested in DX either here or in some exotic location both Roger and Luke can tell you a lot about "how to".

Rodney VK3UG

Mount Wombat Repeater Site Progress

On Tuesday 30th January Kevin VK3BPH, Geoff VK3ZNA and Rodney VK3UG went to Mt Wombat to get as much work done on the site for safety and operational purposes. We only managed to get one amateur repeater on air (6mx) and it appears to be working well with the new antennas. The UHF CB repeater was also put on air with a new antenna. The DC and battery control system was installed and is nearly fully operational. The external bracing of the hut mast, lightning bonding and sealing of holes through the walls to prevent rodent intrusion were completed. It was a long day setting out at 9am and arriving home about 8pm.

Things still to be done

- A number of low loss coaxial cables need to be made up and connected to the repeaters and the cavities.
- Completion of the DC wiring and controller.
- Cabling needs to be neatly done to ensure we maintain the look of the site in a professional way.
- Overhaul and installation of the current 2 metre repeater (ultimately as a cold standby) until the (new to us) Tait repeater is ready to install.
- Several VK5DJ controllers have been obtained and will be put into service with those services needing an upgrade. We will then have virtually all services using this variety of controller.
- Some work to be done on the 2mx cavity filters, to determine the best ones to use, plus upgrade connectors as per next item.

- We are looking at replacing all BNC and UHF (SO239) connectors on cavities and any terminations within the hut with type N connectors. These are much better items than the hotch-potch variety of connectors we have used over the last 35 years.
- For the 6 mx repeater two better cavities are to be worked on to take the place of two of the cavities we have already. This should improve the signals further.
- The Digital Signal Processing (DSP) on the 6 metre repeater needs an audio AGC system built into it.
Anyone got a good design?
- 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.
- A complete retune of all the older cavities to make sure they are working at their best.
- Once the above items have been done, attention to the D-Star, IRLP (on 439.775 MHz) and internet links will occur and later other services.
- We'll keep you up to date with progress. Most of the work proposed back in 2014 has been completed.
- Geoff VK3ZNA is doing most of the upgrade on the various repeaters which is a lengthy process.

For Sale

Mil spec (true it comes from a RAAF auction) RG58 cable new and unused.

\$1.00 per metre under 20 metres \$0.80 per metre for lengths 10 metres or greater.

Pirelli RG303 75ohm Teflon same size as 58 \$2.00 per metre

100metre rolls 1mm2 pvc insulated copper \$20 ea

Aviation grade 4 core and shield ptfe insulation suit audio or control apps \$1.00 per metre

Contact Barrie VK3KBY 0427 116 101

Free:- Lengths of twin shielded audio cable, with plastic sheath. Contact Rodney VK3UG 03 5825 1354

Editor's Ramblings.

- The differences in signal strength between our existing 439.775 MHz repeater and the newer one on 438.650 MHz are due to the use of much older cavities which have greater loss plus the transmitter is lower in power. As time progresses many of these inadequacies will be addressed.
- We are slowly receiving reports on the performance of our 6 mx repeater. We are not sure how much the range has extended but we do know that signals do appear to be filling in some of the poorer reception areas since the upgrade. With a good mobile station it is possible to easily use the repeater to within around 10 km to the East of Bendigo and many areas within Bendigo are quite good for stationary mobile 6 mx access to the repeater – away from the usual electronic pollution. Ray VK3RW to the East of the repeater site is receiving better signals. VK3KV in Myrtleford is able to use the repeater – a known poor reception area. We would like reports up and down the Hume highway and anywhere that the repeater may be able to be used. Fixed station 6 mx stations will be able to give us an indication of the expected range these stations will achieve. Email me on rodlynn6@bigpon.com or telephone 03 5825 1354 with your repeater experiences.
- The Mt William 6 mx repeater on 53.650 MHz (91.5 Hz tone access) is now operational with a new antenna. It has been accessible from Mt Wombat – I wonder where else in our club area?

- Peter VK3FPSR whose location in the Cobram area is shielded by Mt Major from Mt Wombat is now able to work 70cm on the new repeater reliably but couldn't work the older repeater at all well. As mentioned last month it is around 11 dB stronger than our existing 70cm repeater which is currently off air.
- I am endeavouring to put together a history of the club repeater site from 1981 through to the present day. I do have information from 2009 onwards, but for earlier periods I'd like members who have been involved with the repeater site to provide me with information even if only verbal, but preferably in writing. **Please help.** Some have put up their hand but the more info the better.
- If you are a member of the club did you realise that Jaycar in Shepparton on the Goulburn Valley Highway to Melbourne will give you a discount of around 10% when your purchase (most items) exceeds \$10 – provided you ask for it and show your current membership card. So if you are not a current member of the club maybe it is time to join. Jaycar is the only general electronics store still in Shepparton since the closing of Dick Smith.
- I would appreciate articles and photos for inclusion in newsletters; after all it is your newsletter.
- Do you want to sell something or buy something – well you can advertise in the newsletter for free if you are a club member.
- I know not all members have internet/email, but if you do have it, consider having it delivered this way instead of by snail mail – it is quicker and we can let you know of things of interest promptly not several weeks after an event!
- I wonder what projects each member has been working on in recent times. Is it some new antenna, some ancillary pieces of equipment to make your equipment more useful, upgrading your skills such as becoming proficient in using morse code like Les VK3TEX, some different operating techniques you are trying or just getting on the air as Andy VK3AJA suggests. How about dropping me a line telling me what you have been up to. Maybe an article?
- It was good to see Ron VK3COP and Bruce VK3PNF back after a bout of illness in various forms. "Keep on keeping on" as the Dulux TV add said.
- March 18 is proposed as a get together date with the Bendigo group at Goulburn Weir.
- The club decided at the meeting to change banks which we see as being beneficial for the club.
- Did you know there are three broadcast band AM transmitters around Shepparton. 1260 kHz 2 kw racing broadcasts (the old AM 3SR) Shepparton East, 1413 kHz 500 watts Christian broadcasting Waaia and 1629kHz 500 watts Italian Community broadcasting Shepparton East.
- Kevin VK3BPH and Rodney VK3UG are currently working on an overhaul of the antenna matching, tuning and the earthing system on the 1413 kHz station. Soil conductivity is important with broadcast band AM stations (531 kHz to 1702 kHz).

Rodney VK3UG Editor.

By the author of *Minimum QRP*

Getting back into Amateur Radio

What's new and what you forgot



Peter Parker vk3ye dot com

Extracts from *Getting back into Amateur Radio*

A selection of short articles for exclusive use by Australian radio clubs. Free to use in club newsletters, email bulletins etc if considered useful to members. Items are not time-critical and can be used whenever 'filler' material is needed.

Item 1: What's changed in radio - equipment

Amateurs continue to be inspired by waves of surplus or cheap equipment. Sixty years ago it was heavy war surplus gear. Then there was VHF AM and then FM gear as commercial users moved to higher frequencies, narrower bandwidths and trunked systems. Later we benefited from satellite or microwave cast-offs. More recently we've had the global marketplace that is eBay, and the availability of modern yet cheap equipment.

If you haven't looked at new transceiver prices lately you're in for a pleasant surprise. It's a buyers' paradise compared to 30 years ago.

Back then transceivers only covered the HF bands and cost maybe a month's wage. All-mode rigs for 50, 144 and 432 MHz were separate units and cost a similar amount each. A 160 metre to 70 cm station could have easily cost three months' pay, and we haven't even counted the accessories yet.

Today an all-mode 160 metre to 70 cm transceiver can be yours for maybe two weeks' income. And a basic 100 watt HF-only transceiver is down to a week's average wage.

VHF/UHF handheld prices have plunged even more. A 2m/70cm handheld was an expensive luxury in the 1980s and early 1990s. Today the cheapest eBay handhelds from China cost under \$US50. They may lack the quality control of the established brands but their presence in the market has improved affordability for all models.

Such low prices are now seen on HF as well. At the time of writing the Bitx40 prebuilt 7 MHz SSB transceiver module is available for \$US59. Solder a few wires and be on the air in an hour. The cheapest Morse transceiver kits go for under \$US10 but their low output power and crystal control makes achieving contacts 'challenging', to put it politely.

Online purchasing and payment systems have further cut prices. Thirty years ago most large cities had several radio shops but are now lucky to have one. Instead, a great deal of amateur gear is available online from both domestic and overseas suppliers. Online suppliers have lower overheads and prices but you need to weigh this up against support provided by local dealers.

Warranties have lengthened on the established brands. At one time HF transceivers were guaranteed for 12 months only. Now warranties as long as five years are offered. This, coupled with lower prices, makes buying new gear more attractive than it used to be.

Enjoyed the read? There's more in '*Getting back into Amateur Radio*' by Peter Parker VK3YE. It's available as an ebook through Amazon for \$6.99. Search the title on Amazon, like '*VK3YE Radio Books*' on Facebook or visit vk3ye.com for more details.