

# SADARC

**SHEPPARTON & DISTRICT AMATEUR RADIO CLUB**

Repeaters: VK3RGV 2m - 70cm - Packet  
Freq: 146.650 - 439.775 - Packet 147.575

Founded 1979

Incorporation No. A6677  
P.O. Box 692 Shepparton 3632

REPEATERS VK3RGV 2m & 70cm  
VK3RGV B D-Star  
2m IRLP Node # 6992  
CLUB CALL SIGN VK3SOL

President:- Peter Rentsch  
Vice President:- Ed Roache  
Secretary:- John Waters  
Treasurer:- Ron Burns

VK3FPSR  
VK3BG  
VK3PXJ  
VK3COP

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.

## APRIL 2012 Edition SADARC Newsletter

### Presidents Report:

Thank you to all those who attended the last meeting. A good day of fellowship was had by all at the BBQ prior and a successful meeting followed.

For those that receive the Newsletter via Email you will find attached a copy of a Draft Model Constitution. If you receive the Newsletter by snail mail a hardcopy is enclosed. Can you please review this Constitution and have ready for our May meeting any additions or alterations that you may feel are necessary for the successful ongoing operation of the Club. This will be discussed at our next Club Meeting, so be prepared.

At our last meeting Michael VK3FMAA suggested that we have a Field Day at Kyabram. A group that Michael is involved in is keen to have us demonstrate Amateur Radio to them plus others that will be invited on the day. The proposed date is Sunday 3<sup>rd</sup> June and he would like us to set up a 2m/70cm station as well as HF. We would be looking for a number of volunteers to help out on the day with some equipment. Please give this some thought and let us know at the next meeting if you are available to help.

Coming up in September is our Comms Day/Hamfest. I know it is a few months away but now is the time to start planning for a very successful event. If you have any ideas on who we can get as exhibitors that we have not had in previously or any other ideas that will help enhance our Comms Day/Hamfest please let me or the Secretary know. The day works well for us now but there is always opportunity for us to improve. Remember, this is our major fundraising event for the year. The funds that we raise at this event benefit us all. As you would all be aware we have spent approximately \$1800.00 in the last few months on maintenance to the equipment on Mt Wombat. You would have to agree that the 2m from Mt Wombat is now working very well. In addition to 2m's the 6m setup is working properly as well. So please consider any way in which you can help or contribute to the success of the day as WE ALL benefit.

At our January Committee meeting I proposed the idea of a Welfare Officer for the Club. The role of this person is to assist anybody that has physical health issues to get them back on the air if they so

desire. His role is not necessarily to carry out all the work but is more of a coordinator to facilitate what needs to be done. As an example, a couple of years ago one of our members moved to a Retirement Village. He was still able to use a radio and the Village was happy for him to do so. His age and his physical limitations excluded him from setting up some equipment. Our Club got together and established a station for this member and got him back on the air. Jack, VK3TJS has agreed to be the Welfare Officer. So, if you hear of any of our Club members who need some help due to physical inability please let Jack know and he will act on it appropriately.

In closing I would like to thank all those that attended the BBQ get-together at Goulburn Weir. A great day was had by all. About 40 people were in attendance including some visitors from Melbourne. The car boot sale was a success with a little bit of gear from our own members and a deceased estate from Melbourne. There were no radios in the deceased estate but a lot of very good test equipment, componentry and bits and pieces.

Looking forward to seeing you all on the 5<sup>th</sup> May for our next regular meeting.

73,s

Peter  
VK3FPSR

## Minutes of the April meeting:

Meeting opened at 1pm,

Apologies from VK3ALF VK3FJHM VK3DCX VK3HEM VK3CHV VK3 CAF, VK3HBW, VK3AO, MAT JAYCAR VK3MRO, VK3PNF

Minutes from previous meeting amended, by Trevor vk3vg, that emr test to be carried out, at mnt wombat seconded by les vk3tex.

Dave vk3vce notified the meeting that a former club member VK3DWG BILL from Goornong had passed away, the secretary to send a letter of condolence, to Bills family.

Inwards correspondence was read,

Outwards correspondence was sent to wagga Albury Bendigo clubs about the barbecue at the Nagambie weir, and a thank you note was sent to the family, of Reg VK3ARB, Thanking them for the kind donation of the radio gear that was donated to the club.

The problem with the life membership cards was dealt with

Ron VK3COP presented the financial report moved ron seconded by Ed VK3BG

VK3UG ROD presented the technical report moved Michael vk3fmaa seconded by Allen VK3FALN

Problem with our comms day not being able to set up our tables on the Saturday, Pat vk3ov to look at other venues and report back next meeting,

Michael VK3FMAA spoke about a day at his church in Kyabram about some operators and their radio gear setting up to show the people what amateur radio is about, to be held on the 3rd June

There is to be a special general meeting to be called at a later date to discuss the constitution.

Any member wishing to purchase a tee shirt with their name and club name on it contact ED VK3BG

NEXT MEETING WILL BE ON 5TH MAY

Meeting closed at 2 .15pm

### **MT WOMBAT - TECHNICAL REPORT APRIL 2012**

All repeaters except the APRS repeater are operating well. The repeater site was commissioned in 1982, 30 years ago. A number of jobs have been done over the last few years but a considerable upgrade for future activities was needed. Hence over the last 12 months approximately \$1800 has been spent bringing the site up to scratch and making provision for future activities. From the comments of members it has been money well spent. We do not envisage large expenditure on the site over the following 12 months.

The performance of the 70 cm analog repeater continues to provide good service which is hoped to be improved once the replacement 70 cm antenna is installed. It will be installed either on one of the hut masts or on the main lattice mast. The location of this antenna is a subject for discussion by the club. However, the technical committee believe that having two 70cm services (analog and D-Star) with antennas in close proximity on the lattice mast may cause desense under some circumstances and is not recommended. The current X50 antenna

on one of the hut masts will become a spare for 2m or 70cm services as it is a dual band antenna. The replacement antenna will be at around the same physical height above the hut (if that is where it gets placed) and will have higher gain than the current X50. This is projected to occur during spring.

The D-Star 70 cm repeater is operating well, but there appears to be very little activity on it by Shepparton amateurs, but plenty of activity via the netlink, so the repeater is fairly active. Negotiations are underway to endeavor to get more reasonable rates for the internet connection and we are waiting on hearing the results of Toby's negotiations. Internet connection to D-Star at this time is likely to cost around \$600 per year unless Toby can get a concession on this fee.

The performance of the 2m repeater is such that amateurs in some suburbs of Melbourne are able to access it. Without the large refurbished antenna this was not possible. With the 9 dB gain omni-directional antenna (subtract 1 dB loss in the cabling) and 20 watts going into the antenna system our effective radiated power (ERP) is of the order of 140 watts from a mountain height of 799 meters. The antenna is approximately a further 15 meters above the top of the mountain. There are no reports of interference due to the use of the Ballarat repeater that is on the same frequency as our two meter analog repeater. IRLP is also used on this repeater.

The simplex two meter APRS repeater is still not operational, as Ray has not been provided with the modem from Toby. Toby is obtaining this from his contact Richard.

The 6m repeater is working well and certainly the digital signal processing (DSP) is proving very effective at cutting down noise on the weaker signals. Thanks to Philip for this addition to the repeater. As six meters is a noisier band there are some areas where power line and other interference cause reception of the repeater to not be as pleasant as the reception of the 2m repeater. In some of these locations 2m isn't usable anyway. Currently the ERP of the six meter repeater is around 12 watts – considerably lower than the 2m repeater. We are looking at improvements for the repeater. Some will be experimental as the 6m band is very different to the two and 70cm bands as far as the performance is concerned and the methods needed to overcome these differences.

We are looking at increasing the transmitter power by around 3dB and fitting another antenna which will increase its gain from unity to 3 dB. If we can improve the repeater transmit power by 6 dB for the transmitter and the receiver sensitivity by at least 3 dB, problems of noise in mobiles will be reduced and weak signal areas will largely disappear. Should all these proposed improvements work well the ERP should be of the order of 50 watts which will make it similar in performance to the 140 watts of the two meter repeater when antenna capture area is taken into account. The extra gain of the antenna is a straight forward proposition but the increase in power potentially can cause desense. Philip is looking at a simple but potentially very effective filtering circuit that should reduce broadband noise out of the transmitter so that the receiver will not hear this noise which can cause the desense. Some experimentation may also be needed with the receiver front end and Philip is looking at that too. Should all these improvements work as planned our club will probably have one of the best if not the best 6m repeater in Australia. The technical committee would like those who have the authorization to use 6m to give it a go and use the repeater and the band more. It is an interesting band. Ray conducted a test on desense on 16/4/2012 and found that there was none - which is good news.

Electromagnetic Radiation figures are to be produced for the Mt Wombat installation and Trevor VK3VG will provide figures which can be kept on site and in the club records. We believe that we are safely within the legislated limits for the various frequencies in use but need to make the calculations to be quite sure. The location and height of each antenna has been provided to Trevor so that he can do these calculations and the results will be available in the next report.

As the coaxial cable lengths are relatively short for antennas on the hut masts in many cases RG213 or preferably RG214 could be used in place of heliax with acceptable RF cable losses. Certainly on 6mx this is already happening. The losses of RG213/4 versus heliax would need to be calculated for each band before a decision was made. Rough calculations indicate that the shorter lengths required for the hut roof antennas will have around the same losses as the long lengths of heliax cables on the lattice mast.

At the committee meeting on 14/4/2012 it was asked that an asset register of equipment be made of equipment on site which would include make, model and serial numbers plus any gear located in different locations used as backups or spares needs also to be included. Cables also are to be identified. Information manuals (not service manuals), connection procedures, etc need to be on site, with repair manuals kept where sets are serviced. All members of this committee and other members will need to work towards completing this. Ed is in the process of copying some manuals for the club. Some of this work was done on the visit to Mt Wombat on 16/4/2012.

On the 16<sup>th</sup> April Ray and Rodney went up to Mt Wombat with Warren Brown of the CFA to endeavor to solve the 6mx interference problem. By placing a couple of clip on ferrite filters on the AC power lead of the CFA equipment and another on a DC line the interference was dropped to a very acceptable level. Whilst up there other minor jobs around the hut were undertaken, including some of the requests as mentioned above. Some labeling of cables, checking assets, and putting up signs for the first aid kit and the fire extinguisher were done. The task of removing the original through the roof mast on the hut was looked at to see how we should arrange to get it down safely. Once removed the equipment in the hut could be more easily accessed. It was agreed that we should enlist the expertise of others possibly Bill Crocker who does a lot of constructional work to give advice on this problem. When this rusting mast is removed the UHF CB antenna will be relocated to one of the hut masts. The performance will be much the same as it currently is from the new proposed location, plus it will be much easier to service.

All being well further visits to Mt Wombat should not be necessary until spring when upgrades of the 6mx and 70cm repeater systems will take place. Some antenna cabling tidy ups may occur before spring but there is no urgency. The extra new hut masts will be taken up then and we'll be looking at removing the mast at the center of the building and transferring the UHF CB antenna to one of the hut masts. No decision has been made on what to do with the failed 2 mx antenna.

Rodney Champness on behalf of the Technical Committee 16/4/2012

**Some Photos of the Clubs BBQ at Nagambie Weir:**





**A FUN DAY WAS HAD BY ALL AND GREAT WEATHER TOO!**

## Wonnangatta Valley Rescue

On Easter Monday Bruce VK3FBNG was tuned into the regular 9am net on 7090. Jack VK3AJK from Moe was controlling the net when we received an emergency call from Adam VK3MOC at 9.35am, Jack took the call, Adam was set up off a bush track 5ks. from the Wonnangatta Valley.

Close to the Wonnagatta Valley homestead ruins, several campers had arrived for the Easter break. One of these campers became ill and was in need of urgent medical help. There is no mobile phone coverage in the valley so some one decided to follow the bush track out of the valley to look for assistance, 5 ks out this camper came across Adam and asked Adam for help, that was when Adam tuned into the 7090 net to request Jack to call 000.

The patient was a 40 year old male who had a brain aneurysm in 2007 and had two seizures that morning and was in a bad way, information was relayed from Adam to 000 and back via Jack who was in contact with 000 the whole time relaying information back and forth. The decision was made to send a helicopter to retrieve the patient as he was too ill to move via road. Adam had a mobile phone with him and was able to use the GPS system in his phone to relay the coordinates to 000. It was then suggested that as many cars as could be found gather near the homestead to form a 50meter circle with the hazard warning lights on to assist the air ambulance to locate the camp sight..

The patient was relayed to hospital and has recovered.

The whole exercise was conducted professionally by Adam and Jack and a job well done by these two amateur radio operators.

## Proposed Event Information day Kyabram Sunday 3<sup>rd</sup> June

It is proposed to do a show and tell for the Kyabram community to show what Amateur radio is and how much fun it is as well as give information about how to get involved in the hobby at different levels.

Showing Hf communications as well as vhf and uhf and if possible to show some digital as well and let people see the advantages of what communication is about and how much fun it is for all

What we need is some members who can bring some equipment for both static and on air display on the day who can demonstrate what we can do as amateur radio operators and I would like to make a point of letting people know how this knowledge made it possible to assist the recent Southern 80 event in Echuca Moama.

I will take a variety of older equipment for the event and trestle tables would be



available on site this will be advertised through the Kyabram church community as well as the local paper that it is on if approved.

This may also give the club a need to look at training some assessors as well as gaining new members and keeping our radio hobby alive for the next generation to enjoy.

Needs we will need at least 1 advanced and a couple of standard license holders as I would like to give some people the chance to go on air as a second operator and we will need some home or mobile stations on air to talk to as well and if we can get some stations from outside our area to try to call us as well, And if there is a member who can demonstrate cw that would be great as I would like to show that cw can also be fun (as yet I need to have someone to teach me this ) I do want to learn Morse.

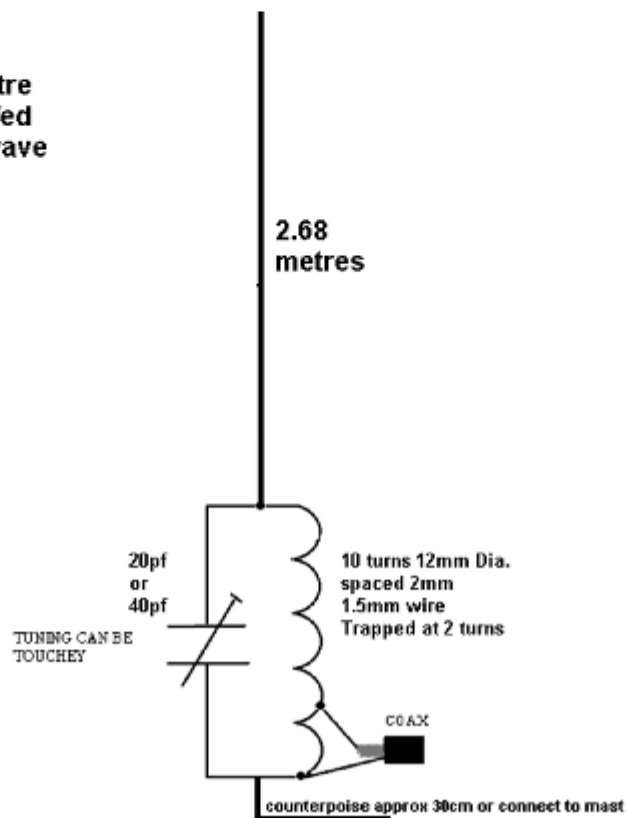
This is all to make people aware that as amateur radio we are able to have fun and still make a difference.



## 6 Metre $\frac{1}{2}$ Wave Vertical

Here is a simple 6m FM antenna that can be made out of just about anything. I made one out of wire, put it in my bag, took it to Ireland and hung it off a tree (4 metre version). Pat (my bother-in-law) put it in some conduit. The coil construction is not critical because the trimmer cap will adjust the resonant frequency. The trimmer capacitor is adjusted for minimum SWR. I have always ended up with 1.5 or 1.2 : 1 but if you are a perfectionist the tapping point can be adjusted a little to get it spot on.

6 Metre  
end fed  
 $\frac{1}{2}$  wave





## Moorabbin and District Radio Club.

PO Box 58 Highett 3190

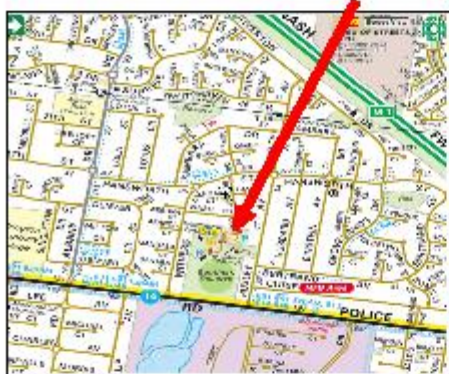
VK3APC

**\*\*\* NEW & Improved Venue \*\*\***

**\*\*\* Saturday 26th May, 2012 \*\*\***

# HAMFEST 2012

Location – Southern Community Centre - Rupert Drive, Mulgrave  
Melways Reference **80 F4** (Enter via Huxley Ave off Police Rd.)



- \* GREAT VENUE
- \* PLENTY OF SPACE
- \* MELBOURNES BIGGEST
- \* MAJOR AND MINOR DOOR PRIZES

The Moorabbin & District Radio Club have much pleasure in inviting you to participate in **VK3's BIGGEST ANNUAL HAMFEST**. Snacks and hot food will be available – FREE TEA & COFFEE!  
Talk in via 439.900Mhz 70cm VK3RSE

**PRIZE DRAWS:** Every entry ticket goes into the draw & additional tickets on sale

**SALES: NEW** - Importers and suppliers of amateur equipment & accessories.

**SALES: USED** - Preloved ham gear & accessories, PC's & bits & pieces

All inside and undercover. Demonstrations of Radio equipment and accessories.

**ENTRY ONLY \$7.00**

(Doors Open 10am – entry tickets on sale prior)

(INCLUDES **FREE** DRAW IN THE MAJOR DOOR PRIZE.....)

Tables available at \$20 each, (1.8m long)  
includes lunch voucher. Please contact:

Lee Moyle, VK3GK. Tel: BH/AH (03) 9705 1051  
Email: vk3gk@aanet.com.au

Graeme Lewis, VK3GL. Tel AH: (03) 9702 1199 or  
Mobile (0418) 171601 Email:  
vk3gl@bigpond.com.au



[Webpage - www.mdrcl.org.au](http://www.mdrcl.org.au)

Thanks once again all who contributed to the newsletter and we'll see you next time!

Cheers Les VK3TEX.