



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

Repeaters VK3RGV Freq: 53.725MHz (1 meg offset),
146.65MHz (IRLP Node #6992 is being withdrawn, then transferred to the 70cm analogue
repeater once some technical and legal problems are overcome, Echolink active.) (600 kHz
offset),
439.775MHz (5 MHz offset), 438.2MHz (D-Star) [D-Star not operational at this time on Mt
Wombat]

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 callsign
VK3SOL:-

Wednesday evening - 3.62 MHz ± interference 7.00pm, 2mx repeater
8.00pm

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.

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 and days are normally notified in the preceding newsletter.

Website - www.sadarc.org

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: - Ron Burns
VK3COP		
Membership Sec: - Pat O'Shannessy	VK3OV	Webmaster: - Steven Hamer
VK3DP		
Station Manager: - Vacant		Publicity Officer: - Vacant
Technical Committee: - Phil VK3ELV, Ray VK3RW, Geoff VK3ZNA, Kevin VK3BPH & Rodney VK3UG		
Newsletter:- Rodney VK3UG (Editor)	rodlynn6@bigpond.com	& AndyVK3AJA (Printing/ Distribution)

OTHER CLUB'S NEWS

Bendigo Amateur Radio & Electronics Club nets - Tuesdays 8pm 147.15MHz VK3RCV with club callsign VK3CMZ and Thursday 8pm 3.655MHz ± interference. All welcome to participate. Many SADARC members are able to access their 2mx repeater. Ballarat Amateur Radio Group - email vk3bml@barg.org.au and www.barg.org.au

STOP PRESS: 3.4GHz amateur radio operation in the Shepparton area. At our meeting for the 2nd of July we were very pleased to welcome Lou Blasco VK3ALB and his wife Jenni to our meeting to talk about 3.4 GHz equipment on this amateur band. Some time ago (2015) Geoff VK3ZNA became aware that a lot of 3.5 GHz band Wi Fi panel equipment was becoming redundant with the advent of the NBN. He was able to obtain many of these units (about 100 I think). In collaboration with Lou VK3ALB and the technical whizz of the Geelong Amateur Radio Club (GARC), David VK3QM, it was seen that these devices could be made into an amateur radio transverter converting from 3.4 GHz down to the 70cm band. A 70cm multimode transceiver running at quite low power would be able to do the base band work. For Geoff's foresight he was awarded an Honorary Membership Certificate from the GARC. Well done Geoff. In addition to the very informative talk two 3.4 GHz stations were set up in the grounds near the club rooms and many amateurs had their first 3.4 GHz contacts on this band even if it was only over a distance of around 50 metres. Later in the newsletter is a flyer from GARC about the units or talk with Geoff about the units. If you read this Lou, you will see that this was a talk that inspired a lot of interest and maybe some 3.4 GHz activity within the club. I did see Phil VK3ELV disappear with one of the panels under his arm. If you supply your 70cm gear the cost of the units can be under \$50. (The photos later in the newsletter are courtesy of Andy VK3AJA)

AGENDA

Shepparton and District Amateur Radio Club Meeting 1:00 pm 2 July 2016

- In Attendance were:
VK3ZE Huntly, VK3PXJ John, VK3KJB John, VK3DMD Dave, VK3UG Rodney, VK3OV Pat, VK3ELV Phil, VK3AFD Arthur, VK3FDV Dave, VK3ZNA Geoff, VK3COP Ron, VK3POP Greg (Great to see you) **(Note 20 were in attendance but not all signed the attendance record. It would be appreciated if you would, please. Ed)**
And Guest Speakers VK3FJEN Jenni, VK3ALB Lou.
Apologies:
VK3FNQS Jason, VK3KMF Mark, VK3KBY Barry, VK3FBNG Bruce, VK3GEB Bob, VK3DSF Max, VK3BPH Kevin.
- Confirmation of Minutes of previous Meeting
Read by Peter, Moved by John, second Rodney.
- Matters arising from last Minutes
None.
- Inward and Outward Correspondence
A number of membership forms came in. Given to Ron.
One email out to possible new Member.
- Reports
 - o Financial:
Read by Ron, Moved by Ron. Second by Geoff.
 - o Technical:

Nothing to report.

- General Business
Pat has told us there are enough tables for the hamfest (They have some new plastic ones also).
Andy will contact Bruce at WIA in regard to placing an add. in AR magazine.
We require at least 17 Members for help at hamfest. Please keep this in mind!!!
Andy will look into wristbands for traders,
Andy will send an email to members asking for ideas with catering at hamfest.
The IRLP node sending ident. Through node was discussed and it was agreed that it should be turned off until a solution is found.
Moved by Rodney, Second by Geoff.
Steam rally was discussed. Andy will find out about a banner and perhaps a gazebo for future events. We all agreed more promotion is required.
Moved by Rodney, Second by Peter.
Andy has contacted Steve VK3DP with regard to Marks Partner updating web page. Have asked for passwords.
Rodney has reminded us to check our license expiry dates as sometimes reminders are delayed.
- Closure Closed 2.10 PM

Presidents Report July 2016

Thank you to all those members who attended our last meeting. A good roll up makes it all worthwhile for us to attend. The sharing of information and experiences with our hobby is a great way to learn.

Thanks must go to Lou VK3ALB (and Jenny VK3FJEN) for making the effort to attend our meeting and present his project on the 3.4Ghz transverter. This project would not have come about if it had not been for the foresight of Geoff VK3ZNA in realising the possible potential of some landfill. As a thanks to Geoff, the Geelong Amateur Radio Club presented to Geoff an Honouree Life Membership of the Geelong Amateur Radio Club.

Please keep in mind our upcoming Hamfest on the second weekend in September. Lots of jobs need to be done to make this day a success and we need every member to pitch in and give us a hand. Last year we ran into a problem particularly when we got to the clean-up stage off not having enough helpers, so please make yourself available for this day to help the Club with its major fundraising effort. A considerable amount of time will be devoted at the next meeting to making sure we having a successful Hamfest.

One of the weird and wonderful thoughts that has crossed my mind in recent times was should we as a Club look at more suitable venue for our Club to meet. I was chatting with another Amateur from another Club at Gippstech earlier in the month and they in the past had a similar style of meeting location to what we have now. They felt it was inhibiting their growth as they really did not have a proper Station setup, nor did they have a facility that was suitable for Exams or leaving projects safely in storage until the next meeting.

To overcome this problem they contacted their local council and were given a building within the local council region at no rent to them on the condition that they kept it in good order. This was a vacant hall on one of the council properties. This building is now for the exclusive use of the Club. Perhaps we could try the same approach to Greater Shepparton if the Club felt it was worthwhile? Just some food for thought!!!

This month's meeting we will have a Show n Tell so bring along your project for all to see. As I have a family commitment in Melbourne on the evening of our meeting (grandchildren and their 1st birthdays) I will be at the meeting for the business section but will have to leave at afternoon coffee so I will leave the meeting Barrie or Rod's capable hands.

That's it for me this month and I look forward to seeing as many of you as possible for the next meeting.

Cheers & 73

Peter – VK3FPSR
President – SADARC

SADARC Calendar of Events

August 6th Club Meeting – Show n Tell - 1 pm

September 3rd Club Meeting

September 11th SADARC Hamfest

EDITOR'S RAMBLINGS

- Keep an eye on the expiry date on your amateur licence. ACMA are not obliged to send out a renewal and if they do, due to the slow snail mail you may not get your renewal in time to be sure you stay licensed. If you have a two letter callsign this is doubly important as almost immediately you will lose it as two letter calls are highly sought after. I have heard of one two letter call having great trouble getting his callsign back.
- Note:- If you haven't paid your club membership renewal it is now due. Many have already paid but many have not as yet. Membership is \$25.
- Our analogue repeaters are functioning normally. We have no firm dates for the transfer and upgrading of the antennas on Mt Wombat. The weather hasn't been conducive to this work.
- No action on testing and reinstallation of the club room antennas has taken place due to the members involved being loaded with other things that need doing elsewhere. It will happen.
- There have been a number of changes to the digital television standards and network changes in the last few months. MPEG4 is now being used by networks to allow more high definition channels to be fitted into the 7 MHz bandwidth transmitted by each station. Each transmitter transmits all of say the "6" series of channels or "8", "2", "3" or "5", a total of five transmitters transmitting all the channels listed on your TV channel list. Certainly more spectrum conservative when compared to our old analogue system. However, this does mean that many flat screen TVs will not decode the MPEG4 standard,

so it may be necessary to use a Set Top Box with MPEG4 standard inbuilt to feed the HDMI or AV inputs to your TV - unless of course you want to upgrade your TV! There has also been shuffling of programs between the "5" and "8" channels which has been well advertised in the press.

- Digital TV is broadcast on the TV channels between 174 MHz and 701MHz in five blocks (A through to E) of frequencies covering a total of six transmitters - there is one spare at this stage. In some areas it is quite possible to receive the TV stations from an adjoining area. When this occurs many TV sets will indicate on the screen that there are new TV channels available and suggest the TV should be retuned.

Quite recently several filters have become available that will pass the block of channels that you may wish to view. If you live in the Shepparton area a block C filter is needed to reduce the amount of block B signals received from the Bendigo area. Very occasionally adjacent block signals will get through if the signal is strong enough, but the chances are much reduced.

The filters are labelled as FBPA50, FBPB50, FBPC50 (suits Shepparton), FBPD50, & FBPE50 and have F type connectors. The insertion loss of these filters is 2 dB. There are two other filters available FAE60 and a FAE50 which are low pass filters designed to prevent digital data signals above 700 MHz swamping your TV set. If you have a mast head amplifier or a distribution system (amplifiers or passive splitters) these filters should be placed between them and the antenna otherwise interference from these digital services can occur. If you only have one TV and no amplifiers just put the filter at the back of the TV at the antenna socket. All of these filters are made by Aerial Industries and are available from Lacey's TV, 42 Brunel Road, Seaford, Victoria or their other offices. They sell for around \$20 to \$25 or thereabouts. I have no pecuniary connection with Lacey's. Filters similar to the FAE60 and FAE50 are available from GME, Jaycar and no doubt other suppliers. Some have PAL connectors and others type F connectors.

- Andy VK3AJA suggested a while back that we should get together a group that can assist members with antenna matters. No real discussion has come about as yet on this proposal.
- Rodney VK3UG suggested at the last meeting that we should consider forming some sort of interference investigation and remediation group to lessen the effect of increasing interference to reception on our various amateur radio bands. This would be a multi-pronged attack. The causes of interference are well known but locating and eliminating them is not so easy plus you need in many cases a good PR attitude. This is open to discussion. Quite recently Huntley VK3ZE was successful in eliminating interference to his 7 MHz reception. He had bought a small charger power supply from overseas and this proved to be the source of his interference. Even so called compliant C tick or similar equipment available from overseas may not comply as stickers are quite cheap at \$10 a roll!!! Australian equipment is more likely to comply. Note that in the latest *Silicon Chip* magazine the editor has written a section on interference - worth a read and a need by us as a group to get to pressuring the ACMA and government to lift their game on EMC/EMI compliance.
- Discussion on the Echuca Steam Rally took place at the meeting and it was decided that Andy would arrange to get a banner made for us to use at any future club displays. Other ideas on how we could improve our display are to be looked at by those who attended the Echuca Steam Rally and presented at the next meeting - Andy VK3AJA, Peter VK3FPSR, John VK3PXJ, Darren VK3HEN, Bruce VK3FBNG and Rodney VK3UG.
- The Murray Quad was postponed earlier this year due to the Blue Green Algae on the Murray river. It is now scheduled for the 19th November and around 11 or 12 of our members will be needed to do the part of the Quad we have decided to undertake. Note Shepparton is having a Triathlon on the weekend commencing 13th November.

- We now have Assessors for the conduct of exams or tuition prior to exams to assist enthusiasts to obtain their amateur licence whether Foundation, Standard or Advanced level. We have not been able to do this for around five years.
- The IRLP is being taken off 2mx as its operation does not comply with international regulations and licensing conditions and will be reinstalled onto the 70cm repeater where it was originally once some technical problems are overcome. Members will be advised when this occurs. This will mean that our 70cm repeater will get more use.
- Our website has languished in recent months with no attention as we understand Steven VK3DP has been away from home with work. Ways and means are being investigated to see how we might make the website more easily modified if needed and with assistance from others.
- Arthur Duke has now got his callsign VK3AFD, so we expect to hear you on air soon, likewise David VK3FDV from Kirwan's Bridge.
- Bruce VK3FBNG has been approached requesting our assistance to conduct Jamboree on the Air in October. We'll have to get the antennas back up so that we can do this at the scout/guide hall.
- A weak CW signal is heard by many amateurs on 7027 kHz and it runs for many, many hours mostly sending a series of "Vs". I am unable to hear it here as I don't have a suitable antenna. If you do hear it, it would be a good idea to report it to the WIA who should refer it to the ACMA for their attention. Have a listen and bring your findings to the next meeting.
- Recently I travelled to Mildura and back and operated the 6 and 2 metre repeaters. The 2 metre repeater was workable to the West of Echuca (about 110 km) and the 6 metre repeater was workable to just East of Cohuna (about 165 km). We hope that this range will be retained for 2 metres and when the larger 6 metre array is installed and re-tweaking of the cavities occurs (4 to 6dB improvement expected) that the effective communication range of this repeater will be greater as well as fill in of the few poor performance areas.
- We, the newsletter publishing team know that the newsletter gets out quickly when it is emailed to members. This newsletter was completed on 27th July and should be received by most members on the 28th. The question we have is to those who get the newsletter by post. There are delays because the newsletter has to be printed off, assembled, put in envelopes, stamped and then posted, and this all takes time between other activities that have nothing to do with the club. Then there is the snail mail system and if you don't pick your mail up each day a further delay. **What date did you receive this newsletter? We need to know this so that we can endeavour to make sure you get it before the meeting. So let's know, please.**



Shepparton and District Amateur Radio Club (SADARC)

Hamfest/Comms day

Sunday 11th September



SADARC is holding its famous annual Hamfest/Comms day at St Augustine's Hall, Orr Street Shepparton.

Vic Roads Shepparton map 673 Ref P8

Call in on Mt Wombat Repeater 146.650 MHz.

This is our usual venue. The doors open for traders at 8:00am and 10:00 am for the public. We are retaining our very reasonable \$5 entry fee and entry tickets can be purchased before 10:00am.

There will be quality food at good prices on site, with seating so you can both eat and talk in comfort. There will be a raffle and door prizes for lucky participants.

The usual commercial vendors will be there plus many other tables of pre-loved equipment, with around 30 tables in total.

TRANSISTOR LIST

AC126	BFY10	2N2222	2N5088
AC127	BFY51	2N2270	2N5190
AC132	BFY55	2N2646	2N5245
ACY17	BLY89C	2N2647	2N5486
ACY20	BSX19	2N2859	2N5589
ACY21	BSX20	2N2966	2N5590
AD161	BSX59	2N3011	2N5591
AD162	FPN3577	2N3019	2N5770
AF139	FVO9230	2N3020	2N5883
AF178	ITS5656	2N3053	2N5885
AS148	ITS5657	2N3054	2N5961
ASZ16	JE350	2N3299	2N6179
ASZ18	MFE131	2N3563	2SA509
AV9139	MJ2955	2N3566	2SB367
B12-12	MJE520	2N3478	2SC32
BC107	MJE521	2N3553	2SB415
BC108	MJE3055	2N3584	2SC458
BC109	MJE3771/0	2N3565	2SC509
BC149	MPS3564	2N3614	3794
BC177	MPS3702	2N3638	7812
BC178	MPS6513	2N3640	40250
BC179	MPSA12	2N3641	40280
BC186	NTE161	2N3642	40281
BC287	PE1010	2N3645	40468
BC287	PN3568	2N3692	
BC317	PN3643	2N3693	
BC327	PN3644	2N3694	
BC328	PN3646	2N3704	
BC337	PN3690	2N3707	
BC338	PT4537	2N3772	
BC549	PT3164C	2N3773	
BC558	PT4207B	2N3829	
BC559	SE3002	2N3866	
BC577	SE4002	2N3879	
BC637	SE4010	2N3904	
BC638	SF173	2N3906	
BC639	SX18	2N3926	
BD135	TT3638	2N3927	
BD136	TIC45	2N3963	
BD137	TIS60	2N4002	
BD139	TIS61M	2N4033	
BD204	TT4010	2N4036	
BDX96	1N28133B	2N4037	
BF160	2N277	2N4121	
BF180	2N301	2N4231	
BF198	2N706	2N4234	
BF173	2N914	2N4241	
BF183	2N918	2N4250	
BF184	2N1100	2N4289	
BF200	2N1671	2N4292	
BF494	2N1183	2N4342	
BF495	2N2017	2N4360	
BFS22A	2N2083	2N4427	
BFW16A	2N2102	2N4933	
BFX89	2N2218	2N5060	
	2N2219	2N5070	

These transistors were given to the club some time ago for use firstly by the technical committee to use on club equipment and then be available for members use for free, yes FREE.

We only have one or two examples of some types but we have hundreds of the more common small signal types.

They are available from VK3UG if you put your order in before a meeting giving him a reasonable time to assemble them.

It is understood that this batch of transistors were a stockpile of transistors used by a Government Department for their radio section. They changed their communications responsibilities and these transistors were being discarded as no longer required. We were fortunate enough to have held our hands out (via one of our members) and received them.

These are perfectly good transistors and are useful for many projects or for replacement in some older equipment.

Very few members have taken advantage of this service.

A 3.4GHz transverter project



A Geelong Amateur Radio Club Project

A simple 3.4GHz transverter made from a surplus 3.5GHz WiFi transceiver.

- Works with any low power 70cm transceiver or handheld.
- Runs from 13.8V DC and puts out around 750mW on TX.
- Perfect for mobile or rover operation.
- An excellent weekend project.
- No complicated alignment routine.
- Conversion parts can be sourced locally.
- Supplied with detailed conversion instructions.

The conversion requires the replacement of a ceramic filter as well as changes to some SMD components. You will also have to make a couple of simple PC boards to handle PTT control and RF switching.

We recommended that two people get together and modify their panels together. Collaboration is a great part of our hobby.

Please note - these panels have been taken out of service after years of exposure to the elements - they are not new. They are weather worn and as you would expect will be dirty and have evidence of bird droppings. Each unit is inspected externally for physical damage, given a quick clean then a quick power up test to ensure they are alive.

What to know more? Visit <http://www.vk3at1.org> and look for the 3.4GHz page.

Geoff VK3ZNA receiving his Honary Membership of Geelong Amateur Radio Club



Trying out the 3.4 GHz amateur band at the club rooms.



First contacts on 3.4GHz

