



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

Repeaters VK3RGV Freq: 53.725MHz -146.65MHz(IRLP Node #6992) - 439.775MHz - 438.2MHz (D-Star)
Access to the analog repeaters is by sub-audible 123 Hz tone or noise mute (less sensitive).

Club Network on air get togethers:- Wednesday 3.62 MHz ± interference 7.30pm, 2mx repeater
8.00pm. All welcome. Club callsign VK3SOL

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 Vice President:- Trevor Close VK3ATX
Secretary:- Darren Glasson VK3HEN Treasurer:- Greg Keegan VK3POP

Presidents Report September 2014.

September meeting was the final planning for the Hamfest. Thank you to all those who attended the meeting and a special thankyou to all those who helped with the Hamfest in any way. What a great day we had. Numbers through the door were up on last year and all the reports I have received have been positive. Our tables were all booked and possibly nearly overbooked as the Club could not have as many tables as we would have liked. A special thanks to those in the Kitchen. Jack and Bosanna after 13 years of looking after the food felt it was time to have a break. Greg and Rhonda ably stepped into their shoes and with the help of the other ladies did a great job. I hope Greg actually had time to have a look around because between helping in the Kitchen and carrying out his treasure's duties he would have been very busy. Thanks again to all who helped in any way.

Please keep in mind that October is our AGM so all positions will need to be filled. This is the time for you to step up to the plate and take on a roll within the Executive. The club will not operate unless we have willing people to take on the roles within the organisation. Speaking of which, after three years as President I have decided that I will not stand for re-election as President. It is time I had a break and let someone else lead the club to bigger and better things. Also, as many of you will know I have taken on some additional work on a long term basis and this does not allow me the time to put into the position of President the effort that I feel is necessary.

Two issues were raised at the last meeting by the Technical Committee.

1. They sort permission to purchase new batteries for the repeater. This amount may be greater than \$500.00 so notice is hereby given that at the October meeting we will be voting on the request from the Technical Committee to purchase batteries. If you have any objections to this and can't attend the meeting please put your objections in writing to the Secretary prior to the meeting.
2. It was decided that a tentative date of Saturday 11th October be set aside for a working bee at Mt Wombat. Numerous tasks need to be undertaken such weed removal, shack tidy up and

for the Technical Committee, decisions regarding the additional 6m antenna. This is to be confirmed at our October meeting on the 4th.

JOTA will be on again on the weekend of 18th and 19th October. Our Club is again helping out the local Cubs & Guides on the day. Bruce VK3FBNG is organising the event from our perspective but is unable to attend on the day due to a prior commitment. We need 3 or 4 operators for the Saturday afternoon and evening so please keep this in mind.

Thanks again for your support and I look forward to as many of you as possible on October 4th for the AGM.

Peter – VK3FPSR
President – SADARC

TECHNICAL COMMITTEE REPORT September 2014 (18/9/2014)

Things have been relatively quiet in matters relating to the repeaters over the last few months. However, we need to look forward to activities on site this spring and summer. A number of things were discussed at the meeting of 6th September.

- We have not heard when Amateur Radio Victoria expects that the modifications to the lattice mast guy points on Mt Wombat will occur. We were led to believe that this work would be complete by June 30 this year.
- As a result of this it is necessary for the club and tech committee to come to a decision on the best means of mounting the second 6 mx antenna for safety in high winds and best performance. Two options have been discussed. 1. To cut one guy wire breaking it up into short insulated sections so its proximity to the antenna will not affect the antenna radiation pattern, and 2. That the two antennas be offset from the mast by three metres. Each proposition has its advantages and disadvantages. A motion was put to the meeting by Rodney and seconded by Kevin that a decision is made at the next meeting. The motion will be voted on at the next meeting.
- Due to the damage done to the backup batteries, it is most desirable to replace them this spring prior to the fire season. As it is possible that the cost of the batteries may exceed \$500, it was necessary to give notice of intention to purchase the batteries. It was moved by Rodney and seconded by Kevin that this matter is voted on at the next meeting on October 4th.
- Maintenance of the site was also discussed and it was decided that **Saturday 11th October** would be a good day to do general maintenance on the site. It would be necessary to cut bracken fern, or poison it. Other general maintenance would be cleaning out the hut, checking on the hut mounted antennas and determining the best way of mounting the extra 6 metre antenna on the lattice mast for ease of installation and maintenance into the future. We would welcome any helpers.
- All repeaters are working well.
- Phil believes that the 6 metre repeater is de-sensing slightly, which is probably due to some slight detuning of one of the cavities. Two better cavities are to yet be installed on the repeater. Slight adjustment of the Digital Signal Processing is to be done as well.
- The standby power supply continues to run the station with no problems.

- The Motorola power supply has been upgraded as previously advised with the fitting of an over-voltage cut-out which is designed to prevent problems such as occurred in February this year.
- As our equipment complement has increased in recent years it is time for us to look at our insurance
- No word is to hand on when the D-Star will be reinstalled.
- The 3 element beam from the club rooms is still to be re-installed, hopefully by the time of the Jamboree of the Air.
- A number of other items previously approved which showed up in earlier newsletters have not been forgotten and will be actioned as time permits.

Rodney Champness VK3UG on behalf of Phil Dwyer VK3ELV, Ray Wales VK3RW and Geoff Angus VK3ZNA

THE PRE (AGM) NEWSLETTER COMMENTS

This newsletter has been put together by Peter VK3FPSR and myself, Rodney VK3UG, as Steven's (VK3DP) work has taken him away from Mooroopna for several months. Our club annual general meeting (AGM) will take place next meeting on the 4th of October. Think carefully about who you would want on the committee and be prepared to take on a position yourself if nominated. As much as possible the load of running the club needs to be spread around, not just left to a few. You need to consider what you want the club to do which assists members and how this can be achieved.

For me one concern has been that some members travel for over an hour to attend meetings and then the meeting only goes for about an hour and a half. That is a long way to come for such a short meeting. The actual meeting doesn't need to be longer but other activities such as a talk or demonstration would make the trip to the meeting well worthwhile. Don't rely on the 'someone else' to come up with the ideas, as you are also the 'someone else'.

HAMFEST

Our annual Hamfest was on 14th September. A good time was had by the many people attending catching up with other amateurs that hadn't been seen since last year as well as purchasing or selling bits and pieces or more substantial items. It was a full house with over 30 tables of goodies on sale or for display. We had commercial sellers and many amateur sellers with all sorts of things available, from connectors, cables, books, power supplies, antennas, etc. One item that caught my eye was a completely remotely controlled one kilowatt antenna tuning unit. This is an ideal unit if you wanted to set up an amateur station many kilometres away from home. It wasn't cheap at over \$3000 but for what you would get it seemed to me to be quite reasonable. Then there were a couple of vintage transmitters for sale a Geloso from the late 1950s to early 1960s which brought over \$300 and an ART13 WWII Collins transmitter which sold for around \$800. The Shepparton Hamfest has always been known for its food catering standard, and once again with new caterers Greg (VK3POP) and his team of ladies have carried on this tradition. Thank you ladies.



The Milling Millions!
mic.)

Anyone for a microphone? (The D104 vintage mic.)

For Sale:- AMATEUR RADIO RELATED BOOKS

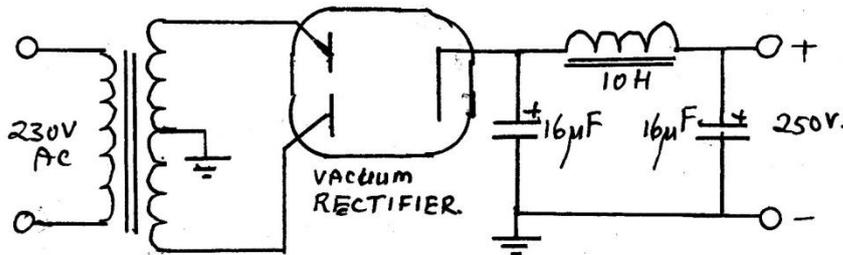
- Fifty years of ARRL ARRL 1981 151 pages \$5
- Radio Transmitter Principles and Projects Ed Noll Editors and Engineers 1973 320 pages \$5
- Radio Frequency Interference – How to identify it and cure it. ARRL 1986 80? pages \$5
- Radio Frequency Interference – Practical cures for Radio Frequency Interference ARRL 2007 Approx 300 pages \$15
- S-9 Signals. Inexpensive HF and VHF antennas for Amateurs William Orr. 1950s 48 pages \$4
- Wire Antennas for Radio Amateurs, William Orr 1972 192 pages \$5
- VHF Handbook for Radio Amateurs , Orr & Brier 1974 336 pages \$10
- Specialised Communications Techniques for the Radio Amateur ARRL 1975 208 pages \$10
- Radio Communications Handbook RSGB 4th Edition 1968 Excellent text book. Some water staining, but generally in good condition. 700 to 800 pages HC \$15
- The Complete Morse Instructor by F. Tait Pitman 57 pages 1944 \$4

I do have many other vintage radio related books available.

Available from Rodney VK3UG , 6 Mundoona Court, Mooroopna, 3629 tel: 03 5825 1354, email rodlynn6@bigpond.com.

POWER SUPPLIES (Part 1)

Power supplies form an indispensable part of our amateur radio stations. Without a suitable supply of power our equipment is purely so much metal and plastic that serves no useful purpose. In this part I will show you a basic power supply that is used to convert the 230 volt AC mains to a suitable voltage for our equipment. In its original form this supply was very suitable for valved receivers and transmitters. The electrolytic capacitors are around $16\ \mu\text{F}$ and the choke around 10 Henry (with a winding resistance of several hundred ohms) for a domestic valve radio from the 1950s. Whilst this is okay for valved equipment it is not suitable for transistorised transmitting equipment running off 12 volts, as the resistance of the choke is much too high and would need to be reduced to a fraction of an ohm and the electrolytics would need to be increased significantly. The Motorola supply/charger used for our repeaters has a total of $300,000\ \mu\text{F}$ of capacitance for the filtering and the choke in the circuit has only a fraction of an ohm resistance. To obtain a consistent 13.7 volts as we have from this supply it is necessary to have additional circuitry which varies the input voltage to the rectifiers so that due to losses in the circuit the 13.7 volts is maintained. It is more difficult to maintain a consistent voltage at low voltage (e.g. due to ohmic losses) than at high voltages, hence these power supplies are more complex than high voltage ones, as will be shown in later parts of the series on power supplies.



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	2N3564	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	
BF166	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	

List compiled by VK3UG and assembled in order by VK3ELV.

These transistors were given to the club for use firstly by the technical committee to use on club equipment and then be available for members use for 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. They will become available from late October.