



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

VK3RGV repeaters and transmitter operating frequencies

53.725MHz (1 Meg offset), **Working poorly at the moment. Improvements will occur once the new tower is populated with antennas.**

146.65MHz (600 kHz offset) (IRLP Node #6992 inoperative. Will return ASAP) (Echolink active.),
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 - 3.63 MHz ± interference **8.30pm.** 2mx repeater 8.00pm

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 Facebook - www.facebook.com/sadarc.org Info for page contact Denny on denny3782@gmail.com

The WIA Sunday morning broadcast is often re-broadcast in the evening on the 2 mx repeater.

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.

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)			

Next meeting - 2nd September commencing with a BBQ at 11am.
Remember that we will be discussing our Hamfest which happens on the 10th September. Help to make it the success it usually is.

Presidents Report July 2017

To all those who attended the last meeting thank you for being there. Our attendance levels at the Club meeting have been very good of recent times. We are a group of like-minded individuals who have a common interest. It is good to see that there is a Club that brings us all together. We are all friends and we talk to each other on very friendly level when face to face. We now need to get the air waves fired up with our chat as well.

As we have rolled over into a new financial year subs are now due again. **Annual subs are \$25.00 and this goes towards keeping the Club running** including paying an Insurance Premium to cover our members if they are on an official Club event and something untoward occurs. If you need a subs renewal form please let me know and I can email you one.

As you would all be aware our Annual Hamfest/ Comms Day will be held on the second Sunday in September (**10th**). This is not very far away so if you do get on air please tell people that it is happening. We need as many of our members as possible to help on the day including the clean-up at the end when we are all tired and want to go home and play radio. This is the major fund raiser for the Club so as much help as possible is required.

Geoff VK3ZNA has delivered a letter to the Greater Shepparton Council in the pursuit of obtaining some dedicated Club Rooms for us and the Vintage Radio Club. At the time of writing this report we have had no response but these things take time. I believe that dedicated Club Rooms will bring a whole new dimension to our Club. Yes, we may have some responsibility in looking after the venue but that gives us a sense of ownership and pride. To have our own Club Rooms allows us to run training courses, build projects and leave them “spread out “ until we can get back to them, have a mid-week Coffee Group, enter into contests as a Club with multiple operators and generally enjoy our common interest as a group. Hopefully we will hear back from the Council sooner rather than later.

That's it from me for this month and I will see you all on the 2nd September when we need to discuss our upcoming Hamfest and do some final organisation. As we have not had a BBQ for a while I thought it might be an ideal time to do so. The weather is getting a fraction warmer. So, I will see as many of you as possible for a **BBQ commencing at 11.00am on 2nd September.**

Cheers & 73

Peter – VK3FPSR
President – SADARC

SADARC Calendar of Events

September 2 nd	Club Meeting commencing at 1.00pm at the Mooroopna Guide Hall after a BBQ at 11.00am.
September 10 th	SADARC Hamfest
October 7 th	Club Meeting with AGM

Shepparton & District Amateur Radio Club Meeting minutes 5/08/2017 1:00 pm.

In attendance were;

VK3PGK Graeme, VK3HEN Darren, VK3FPSR Peter, VK3GMV Wayne, VK3AFD Arthur, John Stevens, VK3FCVT Graeme, VK3VSM Max, VK3FDV Dave, VK3KBY Barrie, VK3DSF Max, VK3ELV Phil, VK3ZNA Geoff, VK3XNW Neil, VK3KMF Mark, VK3UG Rodney, VK3PNG Bruce, VK3ZE Huntly, VK3TJS Jack, VK3AJA Andy, VK3COP Ron.

Apologies;

VK3FALN Alan, VK3FNQS Jason, VK3PXJ John, VK3AO Alan.

Inward correspondence;

Wristbands for Hamfest.

Several membership forms/money.

Outwards correspondence;

Letter to council re-funding from Geoff.

Minutes of last meeting read by Peter. Moved by Darren, second by Huntly.

Reports;

Financial, Read by Ron. Moved by Ron, second by Wayne.

Technical, it was noted that so far the cost of works to SADARC on Mt. Wombat is Zero so far! Some work has been done and tower is up ready for new antennas. Read by Rodney. Moved by Rodney, Second by Graeme.

Murray Quad/Triathlon, Read by Bruce. Requires some members to help. So far only a few Members have agreed to be available for either event.

6 vehicles and operators are required for tri event at this stage.

Read by Bruce, second by Geoff.

General business;

Some tables already booked for Hamfest. 10 so far!

Need to get Jaycar vouchers for raffle.

Need to check PA system and bring Banners and marquee.

Removal of antenna/tower (VK3CJ SK) was discussed and Members have agreed Gordons family will need to pay for crane and removal as not safe for us to do. Peter is getting quote and advising them, SADARC agreed to paying some (\$800 ish) for the work and keep tower/antennas.

Meeting ended 1:48 pm.

Communications Events

At the July meeting members present agreed for SADARC to assist with the communications of the Murray River Quadrathlon again in November and for the first time the Multi Sports Festival to be held in October.

Bruce VK3PNG is discussing with Peter Guy one of the organisers of the Yarrawonga Mulwala Multi Sports Festival to be held on the 21st. and 22nd. of October regards our involvement in this event, we have been asked to assist with the communications of the triathlon part of this event on

Saturday the 21st. only. SADARC will be required to set up a communications centre at the main control at the Mulwala Ski Club. Peter Guy suggests we set up a UHF CB base station along with our amateur radio base station using the local amateur repeater. The committee of this event will supply and set up some of their volunteers with CB hand held's on motor cycles and others at various locations to assist with traffic control etc. The CB base station will need to be monitored by a SADARC member for all of the Saturday and another SADARC member will be required for most of Saturday to monitor our network. At least 4 SADARC members with mobile transceivers will be required for half a day on the Saturday to be set up at various locations of the cycle section from about 11am. The Cycle distance is only 20ks. 10ks. out and 10ks. back so not a huge distance to cover regards the communications.

SADARC will receive a sizable donation for their assistance and any who volunteer to travel to Yarrawonga for this event can have their travel costs reimbursed.

Being involved in the running of this important community event will show the visitors and contestants present there is more to amateur radio than just talking to one another..

We will need at least 6 radio operators for this event so if you can assist please contact Bruce on 0427 715663 or Andy on 0409 716713.

Two or three members who have the Working with Children certificates will be required to assist with JOTA on the 22ND. of October. We have not heard from the Scouts at this time so we are not sure what their requirements will be at this time.

The Murray River Quad is on the 18th. November, we will need volunteers for this event once again. More regards the Quad later.

Bruce VK3PNG.

The Yarrawonga Multi Sports Festival

The sixth annual Yarrawonga Multi Sports Festival is sponsored by the Mulwala Water-ski Club and this year it is being run from Saturday 21 October to Sunday, 22 October 2017.

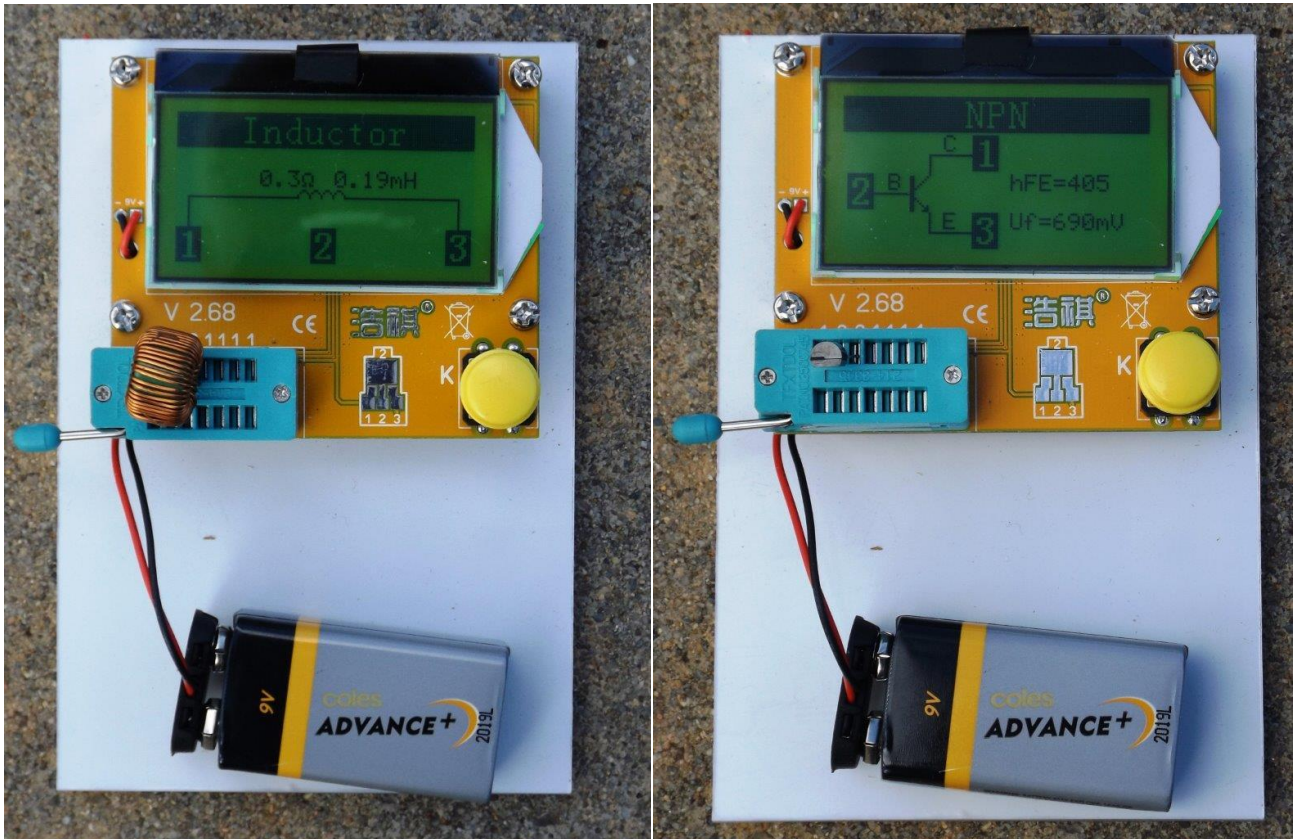
The program will include the ITU world qualification standard triathlon, sprint distance and mini triathlon events on the Saturday afternoon.

On Sunday there will be family run events including the one, three, five and 10 kilometre fun runs and entertainment for the whole family...

Based on Lake Mulwala for shore it is the ideal location for a Multi Sports Festival

The LCR-T4 ESR Meter Transistor Tester Diode Triode Capacitance, SCR and Inductance Tester.

What a device - every shack should have one.



The above screen shots are of some readings from the device named above the pictures. You just plug in the device under test into the zero insertion force IC socket, press the yellow or blue button and the machine goes ahead and tests the device. There are 3 outputs from the socket but many are duplicated so that various pin spacings can be accommodated. The left photograph shows a toroidal coil being tested and is 0.19 mH with 0.3 ohms resistance. The photo on the right shows that the device under test is an NPN transistor with a HFe (approximate gain) of 405 with a junction conduction voltage of 690 mV. It also shows which pin of the socket has the emitter, base or collector connected to it. If you don't put the device into the socket correctly or it is faulty it will tell you that something is wrong. I have found it won't test germanium devices so you have to do that manually. This is possibly due to the fact that Germanium devices have higher leakage than Silicon devices. It doesn't tell you everything about a device but is very handy for giving workbench readings. It doesn't tell the PIV of devices etc but in most cases you will have an idea anyway. It will test electrolytic capacitors giving loss, ESR reading as well as its capacity, but not the voltage rating. The current drain is virtually zero when off and 26ma when measuring, so you can leave the battery connected.

Kevin VK3BPH and Ian VK3JNC gave me info about the device and I felt it was too good a device to not to have one. It costs under \$10 from China posted. You certainly get your money's worth. You do not get an instruction booklet with it but it is quite intuitive – just plug a device in and see what it says it is. If you want to get one look up LCR-T4 on eBay and you will see quite a few people selling them. There are other

interesting devices available too, and if members who have such devices would care to give me information like I am advising you of, I'll print it. I know Geoff VK3ZNA has an interesting little high voltage supply as well as several of the above items. What have others got? Geoff was so impressed with the device that he obtained a few of them. Further info that Geoff has obtained now follows. Rodney VK3UG

LCR-T4 Tester

The tester is stable and easy to use which can automatically read out the accurate data, and is suitable for electronic enthusiasts, electronic developers, designers, and electronic repair. It can measure all kinds of resistance, capacitance, inductance, two types, transistors, SCR, MOS field effect tube; can determine the device type, polar, pin output HFE, threshold voltage, the junction capacitance of the field effect tube. It is particularly suitable for transistor pairing and hybrid surface mount component identification, is the best partner of amateur DIYer.

Characteristics:

1. Using Atmega328 chipset, stronger function.
2. Using 12864LCD diagram to display, visual information content.
3. Using 6F22 9V battery to power, easy and cheaper.
4. Using active block IC, testing more conveniently and quickly.
5. Liquid crystal with backlight, normal testing at dark environment.
6. Pin hole sequence recognition automatically, foolproof type testing.
7. The key device used by high precision, to ensure the test precision.
8. Standby current is only 20na, the standby time is long.
9. Support late automatic calibration, and ensure the accuracy.
10. Single button operation, quick and convenient.

Main Function: (New add function: Boot automatic detection function)

1. One key to boot, one key test, automatic recognition device type, automatic switching range, automatically shut down after the test.
2. Shutdown standby current minimum is only 20na, ultra long standby; the standby power consumption can be ignored, and can be used in battery powered.
3. Automatic detecting the PNP and NPN type bipolar transistor, N, P channel MOSEFT, JEFT, two level pipe, dual two stage tube, thyristor SCR (SCR), three tubes, resistors, capacitors (electric discharge must be done first before measurement of capacitance), the capacitance ESR value.
4. Automatic detect pin layout and given a label according to the actual sequence.

5. The threshold voltage and current measurement of bipolar transistor amplifying coefficient and the emitter junction leakage current, ICE.
6. Darlington transistors can be through the high threshold voltage and high current amplification factor identification.
7. The bipolar transistor, MOSFET protection and detection two tubes and the forward voltage drop U_f .
8. To detect threshold voltage V_T of MOSFET and measure the gate capacitance value C .
9. Detection and transistor and MOSFET protection class two tube magnification and the determination of the base data, to confirm emitter transistor the forward voltage
10. Support two resistance measurement at same time and symbol display, a maximum of four digit display. The display of resistance symbol two end is the tester probe number connection (1-3). So the adjustable potentiometer can also be measured (if the potentiometer to adjust to its end, the tester can not distinguish the middle and both ends of the pin)
11. The resistance measurement resolution is 0.1 ohms, the highest measurement value is 50M ohms.
12. The highest four digit display-capacitor capacitance value range from 25pf (clock 8M Hz clock, 50pf@1MHz) to 100mF. The resolution can reach 1pF (@8MHz clock).
- 13 Measure the capacitance the capacitor equivalent series resistance of the 2UF numerical above (ESR) ,the resolution is 0.01 ohms and display two digit numerical.
14. Display right direction signs of two two level, and display the forward voltage drop.
15. LED detection is two level pipe, flashes continuously several times during the testing, double emitting two tubes detected as the double diode.
16. It can test the zener diode, if the reverse breakdown voltage is lower than 4.5V it shows two pieces diodes, and it can be confirmed by the voltage. The probe around the diode symbol is the same; in this case, you can identify the diode true anode by the threshold voltage at 700mV more or less!
17. It can measure the single diode reverse capacitance values. Bipolar transistor also can be measured, and then must be connected with the base and collector or emitter.
18. The connection of the whole bridge requires can be measured only one time.
19. The maximum of capacitor test is 1000000uf, the best testing range is 0.2nF~7000uF, if the test value is below the 25pf capacitor, and a diode in parallel manner or at least 25pf shunt capacitor. After get the measured results, then use it to minus parallel capacitor solute.
20. The inductance test range: 0.01mH~20H, more than 20H, less than 2100 ohm resistance could be identified as inductance, the measurement results show only a single inductor, and display

the inductance value.

21. The test time is about two seconds, large capacitance and inductance measurement time will be extended as the actual value.

22. Automatic shutdown, after the test it has been show test results about 3 seconds, then shut down.

23. It can be extended fixture after testing device, this fixture needs self DIY or purchase it.

General	
Model	LCR-T4
Quantity	1 Piece
Colour	Yellow + Multicolor
Material	FR4
Specification	
English Manual / Spec	No
Other Features	
Other Features	Display: Digital 12864LCD; Backlight colours: Green (default); Temperature: Operation: 0~40°C, Storage: -30 ~ 60°C; Altitude: 0-2000 M; Relative humidity: non condensing < 10 Celsius. Battery type: 6F22 type 9V; Power supply: DV9V; The standby current: 0.02uA.
Dimensions & Weight	
Dimensions	3.35 in x 2.52 in x 0.51 in (8.5 cm x 6.4 cm x 1.3 cm)
Weight	1.52 oz (43 g)
Packing List	
1 x Meter Tester	

Design Reference

www.mikrocontroller.net/wikifiles/8/8f/Ttester_eng111k.pdf

Thanks Geoff.

Editor's Ramblings

- Mt Wombat info. Allan Tattersall is making up some antenna mounting brackets to suit the sloping legs of the tower so that antennas are mounted with vertically with no tilt. Good thinking by Allan. No work on Mt Wombat as of 21/8 due to the weather we have been

having of late, but we can expect things to start happening soon after the weather improves.

- There is other work going on behind the scenes with a new 6 mx repeater in the offing.
- Greg VK3POP's antenna analyser has now been returned. Thanks.
- Those who may have tried to work out why the overhead power lines were different colours in the question I posed last month no doubt would like to know why they were different. Many feasible answers were provided and many could have been correct, but weren't. The cables were all at the same level on the poles not like here in Victoria where the centre phase is usually raised above the other two. The photo was taken near sunset and the first two cables showed the orange glow of the sunset. The third cable was shielded by the first two cables so was not directly illuminated and looks brown. I might add this phenomenon was not something I had seen before and only lasted a few minutes.
- At our meeting Andy stressed strongly that we need to use our repeaters more than we currently do. Wherever possible do this as it acts to help make the club more cohesive. I would have to admit that my shack is very cold at the moment so on air activity has been a non event. I need to install a 2 mx antenna on my back shed and connect up my Icom IC22S (once I fix it) and monitor 2 mx. Do members remember the very popular IC22S from the late 1970s onwards? They are a 12 volt synthesised rig with a 23 channel capability and selectable 1 or 10 watts output and can be used on repeaters or simplex modes. They don't have a sub audible tone board but are quite useable with our repeater which accepts both noise mute and tone mute access.
- There will be some items available to members from a deceased estate – parts, magazines, books and data manuals either at the meeting or at the Hamfest.

Items for sale, buy or trade

The newsletter is a venue for members to do any of the above things and transactions do occur from time to time. So remember to give the newsletter a try.

Big Red at Birdsville

