



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

Repeaters VK3RGV Freq: 53.725MHz (1 meg offset), 146.65MHz (IRLP Node #6992 not operating) (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 analog 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 1pm 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.

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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 (Distribution)	

Newsletter – February 2016

Note – the March meeting is on Saturday 5th of March. Arrive at 10.30 AM or thereabouts as Geoff VK3ZNA (and any helpers he enlists to help) will give assistance to members to gain proficiency in putting coaxial plugs onto coax cables etc. Tests and checks on some equipment. Problems with cables, connections etc. Some soldering tuition etc. This is help with the nuts and bolts of the simpler but very important parts of our amateur stations, whether home or mobile. Some mobile antennas may be able to be checked for resonance, etc. Following the tutorial session a BBQ will be held and the meeting will start at 1 pm.

Bruce VK3FBNG will also give us more details on the Murray Quad. Current information appears later in the Newsletter.

Presidents Report February 2016

Thank you to all those that attended our last meeting. It was heart-warming to see so many at our first get together for the year. We had a number of guests at the meeting which was good to see. Welcome to Jason, John VK3KJB, Mark – VK3KMF, Michael – VK3FMAA and Mia – VK3FMIA. All our guests on the day have joined our Club so it is great to see a boost in our numbers.

Due to this meeting being our first meeting back for the year it was a fairly long but necessary meeting. Many items were discussed at length and some positive decisions were made. Check out the minutes to see the progress of the Club.

For those that do not know we have had a problem with our IRLP node. This has now been rectified and it is back on air again. Thanks to Andy and Kane for fixing this.

Considerable discussion was held in relation to Mt Wombat and the new tower and equipment that is being installed there. I have been in touch with ARV about the works that are occurring and have received a document from them outlining the “why & wherefores” of the project.

Some excerpts from the document are shown below:

“In 2013 our insurance company requested site audits across the state as part of our policy renewal. Concerns were raised over the condition of the guyed tower and guying points at Mt Wombat. The tower would have to be removed unless it could be made safe.

Independent assessment of the tower was made and deemed too costly to upgrade.

Southern Cross contacted ARV around the same time and enquired if they could install a couple of links at the site.

Southern Cross is very supportive of volunteer organisations and we have a number of repeaters sited at their facilities around the state. Southern Cross offered to upgrade tower and earthing in return for use of site.

Southern Cross and ARV inspected site

We found the installation of equipment within the shelter of a poor standard.

- ⌚ *Earthing poor*
- ⌚ *No equipment racks*
- ⌚ *Some equipment 30 years old*
- ⌚ *Exposed 240 volt mains terminals*
- ⌚ *12 volt distribution poor*
- ⌚ *Shielded cables missing*

Meeting with SADRC

Peter Mill and Ross Pittard travelled to Shepparton to meet with Shepparton Club officials and indicated ways to make improvements at the site.

Concerns about Southern Cross involvement were addressed by Ross and Peter at the meeting. ARV agreed to fund new antennas for tower and provide equipment racks and MTR 2000 UHF repeater with link port for Mt Big Ben Link

*Location of rack frames agreed with club at meeting
Inside pole to be cut out after installation of rack frames.*

ARV will supply

- ⌚ *2 x Micor power supplies*
- ⌚ *MTR2000 UHF repeater*
- ⌚ *Tait VHF base station*
- ⌚ *2x 19inch equipment racks*
- ⌚ *1 x 2 Metre Colinear on top of tower new*
- ⌚ *1 x 2 VHF phased folded dipoles NE new*
- ⌚ *1 x stainless folded dipole NE WICEN new*
- ⌚ *1 x 2 UHF phased folded dipoles NW new*
- ⌚ *1 x Link Yagi Big Ben new*
- ⌚ *1 x Link Yagi WICEN new*

Southern Cross to Supply

- ⌚ *Supply and erect Tower*
- ⌚ *Earth rod from top of tower(highest point)*
- ⌚ *All Cabling to the tower (earthing and feeders)*
- ⌚ *Deliver old tower to place of SADRC choosing.*

SADARC to supply

2 x 614 folded 6 metres Polar antennas and phasing harness North

Summary

We believe that this project is an extraordinary opportunity to upgrade this site with minimum expense to Amateur Radio Victoria and at virtually no cost to SADRC. We would be looking at well over \$40,000 to undertake this upgrade ourselves.”

As can be seen from the document the site is basically going to be brand new site. What we have had, has served us very well over the years and we should be justly proud of what we as a Club have accomplished with minimum expenditure and the expertise of some very clever member's with in our Club. I would personally like to express my thanks to all those who have worked so hard over the years to keep our equipment up and running exceptionally well.

It is now time to move on as things like the insurance companies and the legal system that we now have has forced our hand into change. Let me tell you of an experience of mine concerning change. In 2002 I purchased a turbo charged Suburu WRX. It was a great car and I loved driving it. In 2003/04 a lot of these cars were stolen because of what they were. I received a letter from my insurance company saying that I needed to install a GPS of their choice (\$2,100.00) and my premium

was going to go from \$600.00 annually to \$2,500 annually. Well that forced a change that I was not very happy with – I could not afford the GPS or the extra premium. To top this issue off the car lost a lot of value as the new owners would incur this extra expense as well. To my disdain I had to sell the car – my hand was forced. We all have to face change and we can't necessarily hang onto what we have had forever.

The planning for the Murray QUAD is well in hand with Bruce VK3FBNG and Darren VK3HEN continuing to work away at it. Some information from Bruce can be found further down in the Newsletter.

At our last meeting Geoff VK3ZNA indicated that he had had some requests by members to demonstrate how to make up cables correctly using PL259 and N type connectors. Another request of Geoff was how to use a SWR/ Power meter correctly. Geoff has agreed that at the next meeting on the 5th March he will show us how all this is carried out.

So, the format for our March meeting will be:

10.30AM - Meet at the Scout Hall for a lesson and talk by Geoff VK3ZNA

11.30AM – Fellowship including a BBQ Lunch

1.00PM - Regular Meeting

I would like to thank Geoff in advance and I look forward to seeing as many of you as possible at our next meeting.

That's it for this month, looking forward to catching up with everyone on the 5th March.

Cheers & 73's

Peter – VK3FPSR
President – SADARC

SADARC Calendar of Events

February 28 th	EMDRC Hamfest
March 5 th	Club Meeting 10.30AM with Geoff Angus followed by a BBQ & up to date information on the Murray Quad by Bruce VK3FBNG.
March 13 th	Murray QUAD
April 2 nd	Club Meeting with guest speaker

WHAT'S GOING ON?

Many things were discussed at the meeting on the 6th February.

- Bruce VK3FBNG spoke about the Murray Quad which is something like a Triathlon only it has four separate sections. It will be conducted on and near the Murray river on the 13th March just over a week from our next meeting. Bruce has supplied a lot of information on the Murray Quad and sent me emails with a considerable amount of detail. It extends to 27 pages which is not practical to send by post. It is sent as attachments to this email for those who are likely to be taking part in the Murray Quad. This will be an interesting day to test our ability to work in an environment that can prepare us for the use of our services in emergencies. It is unfortunate that it is not practical to send the 27 pages of information to those members who only have snail mail facilities. A synopsis of the most important bits are shown later in the newsletter.
- We welcomed a number of visitors, new members and some who have come before but drifted away. Particularly we welcome Mia Nowosad VK3FMIA the only XYL member of the club. Then we have Michael VK3FMAA who had drifted away but come back. Jason (sorry I have forgotten your surname) who is still an SWL but is hoping to get a licence into the future. Then we have John Blackman VK3KJB and Dave Patterson VK3DMX who are at Numurkah, and Mark French VK3KMF from Mansfield. Welcome to you all.
- I will be looking at upgrading our entry in to the Shepparton News club directory page.
- Later in the year we hope to have a WIA examiner/assessor come and talk with us to get some of us up to speed to help members to get a ticket or to upgrade their existing ticket.
- Andy will also be looking at Echolink and seeing what we can or should do. Note the short article by Dave VK3DMX on Echolink later in the newsletter.
- We hope to get the D-Star repeater operating from Mt Wombat sometime after the new tower is fully operational.
- Members of the technical committee expect to go to Mt Wombat to assess what we need to do with the antenna systems. We may need to dismantle the existing antennas off the lattice tower. If so we will use the standby antennas on the hut. *** See below
- After the new tower is fully installed the antennas will be fitted to the tower and most of the equipment we have will be given a tune up to make sure it is working to its best capability. This could involve cavity tunes, realignment of some equipment, audio /deviation level adjustments, etc. *** See below
- Michael VK3FMAA suggested that we should link both the Mt Wombat and Mt Major repeaters together. Michael has been asked to submit a discussion paper to the newsletter editor to be inserted for members to look at the pros and cons of the idea. Michael hasn't been able to submit his proposal at this stage hopefully it can be published in the next newsletter.*** See below
- I am looking for articles on IRLP (Peter VK3FPSR has some info). An article on Echolink (see VK3DMR's article) and also D-Star. You put the information in and I'll publish for our members to get a better understanding on these communications mediums.
- There have been some reports of interference from the NBN radio links that some users have instead of optical fibre. If you have trouble lets know and maybe we can help to overcome the problem.
- Andy suggested that we should be helping other members who are having trouble getting antennas up in the air or cannot find out what is wrong with their installation. It is suggested

that groups of two go around of a Saturday to give a hand. Think about it. This would be of considerable help for older members.

- The tower has been completed on Mt Wombat, but fitting of any antennas to it is yet to come. I don't have a readily available photo to show you of it.

***** As you have seen in Peter's report things are happening at our repeater site on top of Mt Wombat. There is more detail in the report supplied to Peter and from others, but what is published is the main part of it. Many things are not of our planning and we will work to obtain the best outcomes for repeater operation on Mt Wombat and for the club.**

Vale:

It is with deep regret that I tell you that Doug McArthur VK3UM passed away on 22/2/2106 following a stroke the previous Friday. Not all knew Doug but much of what he did affected many aspects of amateur radio. He worked in the PMG then in Dept of Communications on Standards and spent time in Darwin at Radio Australia. He was intimately involved with ground breaking moon bounce work and he also developed the program to assess radiation intensity that we can use to be sure that our amateur stations do not exceed legal limits. Using his formula and program we assessed that our repeater site complied.

SADARC and the Murray Quad

At this time 10 SADARC members have stated they will be available to assist with the communications for the Murray Quad and two other members are not sure. We really need more radio operators to cover this event, if you can assist please **contact Darren on 0358521092 or Bruce on 0427 715663**. This event is to be run on the March Labour Day long weekend 13th. March. Darren and Bruce have compiled a list for the members that are assisting with their allocated locations and times etc; some of these positions may have to be re arranged if any radio operator becomes unavailable. All Check Point operators will have an official at their location to gather the information that they require the Check Point operators to radio to Central Control.

The Murray Quad will start with a 3.2Km. swim in Yarrowanga on Lake Mulwala. The Quad will then test the competitors by following up the swim with a 21.1Km. half marathon run locally in Yarrowanga, the competitors then head out of town on the bike for 91.5 Kms. They then finish this part of the event in Cobram where they will hit the water, finishing the gruelling event with a 25Km. paddle down the Murray River to arrive at Tocumwal completing a total of 141Kms. of physical endurance.

It will be an early start with the first leg to start a 6am. SADARC members will be using three amateur frequencies, 2m. Simplex, 2m duplex and 70cm. duplex for this event, Uhf cb will be used

by other volunteers at Check Points 1 to 3, SADARC members will be operating from CP 4 to the finish line. We would like all CP operators to be on the air and check in at least 30mins. before their allocated start times.

Darren and Bruce will be at the Yarrawonga Rowing Club on the Saturday prior to the Murray Quad to set up the radio equipment at the Central Control point at the Rowing Club, if any other SADARC members are about then they are welcome to assist. This location is where the start of the event will take place from and most of the Quad officials will be here to monitor the progress of this event through the day. SADARC members can camp on the Rowing Club premises on the night prior.

There will be a BBQ available for SADARC members to use on the Saturday evening prior to the day of this event. This BBQ will also be available for breakfast on the morning of the event. BYO food and drinks and it may be useful if you take along a chair.

2016 Murray Quad ----- Check point operators

Start VK3FBNG 0427 715663 & AllanVK3FALN. (2m, 70cm, uhf.cb (Medical and Events manager here)

Cp 1. uhf cb ch.15 Scouts (Chinaman,s Isl.)

Cp 2. uhf cb ch.15 Scouts (Pierce Point)

Cp 3. uhf cb ch15 Scouts (Hogans Rd. M.V.Hwy.)

Cp 4. VK3AJA Andrew. *PR

Cp 5. VK3BPH Kevin. *PR

Cp6. VK3COP Ron. Vhf & uhf Telstra ph. reception only.

Cp 7. VK3UG. Rodney.

Cp 8. VK3AO. Alan. vhf &uhf *TBC

Cp 9. VK3HEN Darren. 4/4

Cp 10. VK3POP. Greg.

Cp 11. VK3FMAA Mike and Mia. * PR

Cp 12. VK3DMX David. vhf & uhf 4/4 * PR

Finish. VK3FSPR Peter. vhf & uhf

S.E.S base relay will operate at finish line also.

We will require a second radio operator for start and finish positions.

The 2m repeater 147.200 has a tone of 123. Mt. Major 146.850 no tone required. and the 70cm. repeater 439.650 has the 123 tone. The 2m. simplex Ch. Will be 146.500

Some positions may change if the need arises, ie someone is unavailable etc.

*TBC (Availability to be confirmed.) * PR (phone reception doubtful.)

CP Locations and Start Times

Start 6.00am. Yarrawonga Rowing Club.

CP4. 8.00am. Boomahnoomoonah Rd. & Tungamah Rd.(Boomahnoomoonah)

CP5. 8.30am. Wilby Recreation Reserve.

Cp6. 9.30am. Tungamah Pub Barr Street Tungamah.

Cp7.10.00AM...Katamatite Pit Stop Chapel & Bourke Rd. ..
CP8. 11.00am Highway Crossing Murray Valley Highway Cobram.
CP9. 10.30..am.Thomson Beach Cobram.
CP10.11.00am. Dead River Beach.
CP11. 11.30am.Smithers Beach
CP12. 11.45am. Brentnalls Beach.
Finish. 12.30pm (**Finish line**) Tocumwal Town Beach. (Finish time 7pm)

A detailed map will be available before the event to show the location of each Check Point
Please note the start is called Central Control (CC) and the Check Points are then numbered from 1 to 13, SADARC part of the communications start at CP4. EAP stands for the emergency access points which those numbers have no relation to our CPs.. Each radio operator will have an official at their location to collect the information that needs to be transmitted. **All CPs, to be on air at least 30m. before their start time.**

This is the information as supplied by Bruce on the Murray Quad as at 23/2/2016. There may be alterations nearer the time of the Quad so if you have queries after Bruce explains more at the meeting on 5th March contact him on bnglasson@bigpond.com . For those who get the newsletter by email more data on the Murray Quad is attached (too many to have in the newsletter).

ECHOLINK

What is EchoLink®.

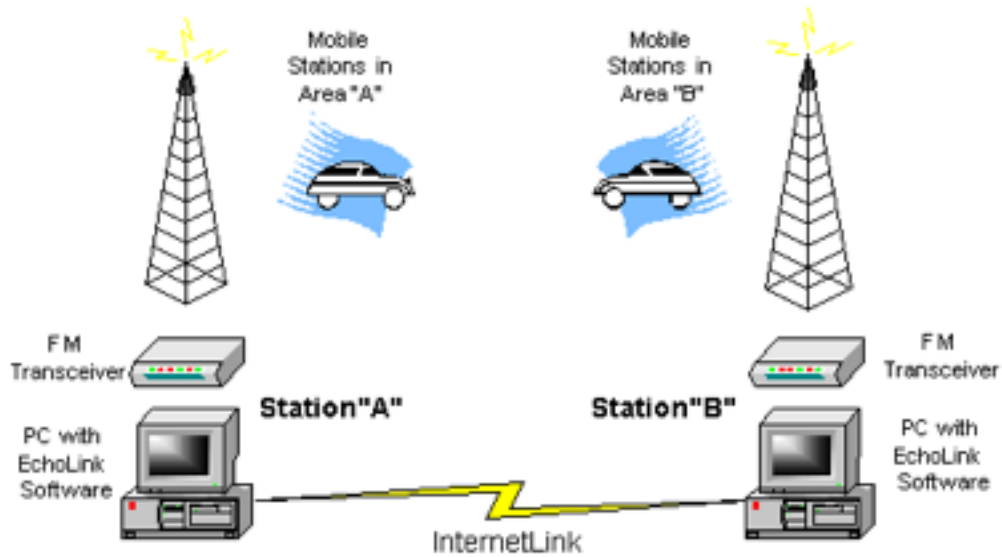
Well in short, it is an internet linking system which allows you to make contacts via the internet with or through a computer.

There are two ways to use the system, either direct, with your computer, if you have one, or with a radio equipped with DTMF. For those unaware what DTMF is, it is a radio that is capable of transmitting key tones like you can hear with your telephone when dialling a phone number.

There are more than 200,000 validated users worldwide - in 151 of the world's 193 nations - with more than 5000 online at any given time.

For those with the computer the EchoLink®. program is free to download, but only able to be used by amateur radio operators who will be required to show proof of licencing. If the user has a radio connected to their computer, they can set up a NODE as a system operator and allow others to link through your system to other nodes with their mobile stations or directly with their computers.

Linking Example



The above example shows how the system can work, station “A” could be located in one country and station “B” located in another country all together. Using this system a mobile station in transmitting range of either station “A” or “B” can also use the system to communicate, with both systems one can communicate with other operator’s from the far reaches of our planet. You do not need any other software with the mobile set up, just need to be in range of the **EchoLink®** repeater or LINK in your area.

With **EchoLink®**, you can have multiple people or stations on the same node at one time if the link node has been setup for conferencing.

The beauty of this system is that all it takes to setup a node is a computer.

For more information and software setup files, visit <http://www.echolink.org/>
You can also contact Dave VK3DMX for more information and help to setup software if needed.

Thanks for this Dave. Do other members have items that members would be interested in seeing. We need articles all the time from members for the newsletter. Rodney VK3UG