

B.A.R.G. News



Official Newsletter of the Ballarat Amateur Radio Group Inc. # 6953T
ABN 44 247 200 143



VOLUME 29 ISSUE 7 July 2006



President: David Tilson VK3UR
Secretary: John Kennedy VK3AIG
Treasurer: Gordon Cornell VK3FGC

NEXT MEETING - FRIDAY 28, 2006
At 7.30 pm

Contacting us

You can write to the club at the address below, or e-mail the secretary.

The Secretary : B.A.R.G. Inc.
Box 1261
Mail Centre
Ballarat. Vic. 3354.



Or E-Mail: vk3aig@barg.org.au

BARG Inc. Life members

Kevin Hughes	VK3WN
Ian McDonald	VK3AXH
Charlie Stewart	VK3DCS
Bob Terrill	VK3BNC
Jim Wright	VK3CFB
Norm D'Angri	VK3LBA
Phil Seddon	
Stan Widgery	SK

CLUB INFORMATION

REPEATERS and BEACON

VK3RBA	(Voice)	146.750 Mhz	Mt Buninyong
VK3RWA	(Voice)	147.100 Mhz	Mt Ben Nevis
VK3RPC	(Packet)	144.750 Mhz	Mt Warrenheip
VK3RBU	(Voice)	438.475 Mhz	Mt Hollowback
VK3RMB	(Beacon)	435.535 Mhz	Mt Buninyong

IRLP Node 6310 using VK3RRWA

CLUB e-mail vk3bml@barg.org.au.

CLUB NET VK3BML 3.610+/- QRM Thursday Nights at 8 pm E.S.T (Summer & Winter)

WIA Broadcast and Club Call Back. Sunday's 11.00 via VK3RWA (IRLP Node 6310)

NEWS ITEMS Send to Harry VK3KGL

Or mail to Box 1261 Mail Centre BALLARAT 3354 or e-mail vk3kgl@barg.org.au

Broadcast Times and Dates on VK3RWA Repeater

Every Sunday at 10.30 am, WIA National News, followed by VICLINK

Every Monday night at 9.30 pm, ARRL News

Every Tuesday night at 9.30 pm, WIA National News Repeat

Every Wednesday night at 9.30 pm, Spectrum Tasmania News

MOWING ROSTER



It is that time again when we publish the mowing roster for the Club rooms. The mower and fuel are at the rooms, but when the fuel is getting low please contact the committee to get a refill. Any new "mowers" will be fitted in.

Grass growing has been cancelled.

Therefore no roster.

Ballarat Amateur Radio Group Inc

Minutes of General Meeting June 30 2006

Apologies Vk3hrz. Vk3caz. Vk3cmc. Vk3cfh.

Minutes of May meeting as circulated. Moved Vk3beb/ Vk3dcs. Carried.
Business arising from minutes. Test equipment from Reg Vk3caz collected.
Ian Vk3axh. Hamvention map and directions organized.
Clem Vk3bvi and Ernie Vk3det arrange to assist Arthur Solomon with antenna erect.

Correspondence. In City of Ballarat re Grant application. Various a/cs.
Out Colin Waugh. Tim McCallum re 6m repeater.
Moved Vk3bnc/Vk3axh that correspondence as tabled be accepted. Carried.

Financial Statement tabled. Moved Vk3fgc/Vk3vba that statement be accepted. Carried.

Reports. George Fowler Memorial Auction. Bob Vk3bnc reported on successful day. Items down on last year and the sum of \$260.00 raised. Thanks to all who assisted.

Club Grants. David Vk3ur reported on Grant applications being sent to City of Ballarat and WIA. Grant applications centered around Radio modernization project and Education / training materials. Results from City of Ballarat mid July and WIA September.
BARG Mugs. Doug Vk3vba reported on obtaining Barg mugs for guests and members. Members will pay \$15.00 for mug.

Silent Keys. Bob Vk3bnc reported on compiling list of Silent Key members. Les Vk3jem to construct board and Merv Vk3adx to pen signage. It is hoped to have all completed and unveiled at January 2007 General Meeting.

General Business. July General Meeting. Ten to Twenty guests from Central Goldfields Amateur Radio Club to attend as guests of BARG, Each Club to give an overview of activities and John Vk3tjw an explanation of the IRLP system. Doug Vk3vba to organize supper.

Remembrance Day Contest. After discussion Club decided to take part in contest, Steve Vk3se to coordinate.

International Lighthouse Weekend, Cape Otway Lighthouse. 19/20 August. No starters.

Six Metre Repeater. An offer of repeater from Tim Vk3tim was outlined by David Vk3ur and letter written to Tim asking for more details. Size. Remote control etc etc. Still waiting on reply.

Marconi Celebrations Queenscliffe. To take place from the 12 to 16 July 2006. GARC is the organizer. Two possible starters.

Annual General Meeting 25 August. David Vk3ur reminded all members of forthcoming meeting and outlined the vacant positions with definite nonstanding for President. Vice President and Secretary.

Reports General. Club Nets. Clem Vk3bvi reported on 13 for last weeks HF Net.
Ian Vk3cis reported normal numbers.

IRLP and Packet, John Vk3tjw reported on group interfacing IRLP and Packet at Club rooms.
Rick Vk3beb now a member of the IRLP/Packet Group. Access to internet now available at Clubrooms.

Education. Committee decided to run next Foundation Licence course on a 4 week theory and practical arrangement starting on Wednesday 2 August 2006.

Kevin Vk3wn to assist with instruction.

Craig Vk3cmc to check with Wia re Fred Swainston book for upgrade from Foundation to Standard/Advanced.

Hamvention Ian Vk3axh reported on progress of Hamvention arrangements at this time.

Newsletter. Harry Vk3kgl hopeful of articles for publication for newsletter.

Web Site Harry Vk3kgl reported that membership application now on web site.

Bob Vk3bnc reported on two antennas for sale at Club. Make an offer.

Meeting closed at 2025 hours.

ANNUAL GENERAL MEETING

**The Annual General Meeting of B.A.R.G. Inc will be held on
Friday 25 th August 2006 commencing at 1930 hrs
At the Club Rooms Ballarat Aerodrome**

Agenda

- 1 Minutes of 2005 AGM**
- 2 To Receive and adopt Annual Report and Financial Statement**
- 3 To elect Office Bearers for 2006/2007**
- 4 To elect Honorary Auditor**
- 5 To elect Honorary Solicitor**

NOTES

- 1 All financial members are entitled to cast a vote on the above matters.**
- 2 Nomination forms are available from Secretary [phone 53324454] or your last**
- 3 newsletter and also on our website www.barg.org.au , click on Membership Button.**
- 4 Nominations for Office Bearers close with Secretary at 1300 hrs on Friday 18th August**
- 5 Postal address for all correspondence is as below.**

**John Kennedy VK3AIG
Hon Secretary.**

**BOX 1261
MAIL CENTRE
BALLARAT 3354**



B.A.R.G. Inc. NOMINATION FORM
Ballarat Amateur Radio Group—Inc # 6953T
25th August 2006

DATE: _____

I wish to Nominate _____ CALL: _____

For the position of _____ of BARG Inc.

Nominated by: _____ and _____

Nomination accepted by: (Nominee) _____



B.A.R.G. Inc. NOMINATION FORM
Ballarat Amateur Radio Group—Inc # 6953T
25th August 2006

DATE: _____

I wish to Nominate _____ CALL: _____

For the position of _____ of BARG Inc.

Nominated by: _____ and _____

Nomination accepted by: (Nominee) _____

President's Report:

The year is flying by at a great rate of knots and it is pleasing to see so many members involved in various activities. We are eagerly awaiting the results of 2 funding submissions to assist with different projects and we should know the outcomes over the next 8 weeks.

It was agreed at our last General Meeting that the club would be active in this year's Remembrance Day Contest, to be held on 12th/13th August and Steve **VK3SE** has volunteered to coordinate our activities – Thanks Steve.

Our next General Meeting should be a lot of fun as we have a number of guests coming down from the Central Goldfields Amateur Radio Group to join us for the evening. It will be a great opportunity to learn a little more about the different activities that each club undertakes as well as enjoying a supper that Doug **VK3VBA** is preparing for us – Thanks Doug.

A reminder, once again, that our Annual General Meeting is to be held on August and nominations are **NEEDED** for a number of positions. I cannot stress enough that a number of the Executive are unavailable to take on these positions for the next 12 months. Without people in these positions the club cannot meet its obligations under Incorporation and therefore will not be permitted to function.

Yours in amateur radio,

David Tilson, **VK3UR**

Silent Key Board:

I am pleased to advise that Les **VK3JEM** and Merv **VK3ADX** will be constructing a Silent Key Board to remember past members of the club. Due to various time constraints the Board will not be ready until early next year, but your efforts are appreciated.

Life Members Board:

At the last Committee Meeting it was agreed that we should have a smaller and separate board to recognise and celebrate our Life Members. Norm **VK3LBA** has kindly come up with a design and we hope to have it available for viewing at our next General Meeting. Thanks Norm.

At the last Committee Meeting it was agreed that some online forms, located on our web site, could be used to automatically notify the club of different requirements.

2 draft forms have been prepared, which are currently undergoing testing and will be added to the web site shortly. These are:

The ability to register interest in attending a training course or examination, whereby all of the relevant details are automatically forwarded to our Training Officer; and

The ability to register a problem with our IRLP system, whereby all of the information is automatically forwarded to our IRLP Officer.

Both online forms have a number of drop down menu items to assist with information, and as a form of backup the output of both forms will also be sent to another Committee Member to ensure that nothing is missed.

Add a BARGRAPH Indicator to you Rig

Most rigs these days have some sort of power indication to let you know all is working well. For those of us that make our own equipment whether it be an inline SWR bridge, field strength indicator or perhaps a transverter its nice to know all is working normally.

This information was provided by Kevin VK3WN when we were discussing how we can tell if our transmitter is doing what is supposed to do ie produce output power. The original author used the circuit to indicate he was generating power from a 1 watt PA at 10GHz.

Having just completed this circuit and adapting it to my 1296MHz transverter I thought there may be someone else around who could benefit from this simple but effective circuit. Although there is a pcb layout given you can easily build it up on Veroboard.

For my application I used a 5 volt regulator to power the device and used a small pickup line near the PA to obtain sufficient voltage to light all the LED's when maximum power is being transmitted.

The circuit only requires about 1.2volts of signal to lights all the led's and it looks great. You could add this feature to you SWR indicator or perhaps the audio output of your rig etc.

I suggest when making the unit you mount both the IC and the Led indicator using sockets on the component side and all other components on the copper side. This will allow you to position the bar leds through a panel for viewing.

Also suggested is a change in the preset variable pot from the specified 10K to 1 or 2 Meg ohm so as not to load the pickup loop supplying voltage to the circuit.

My pickup loop used a schottky diode but any 1N914 or 1N4148 will work fine up to 70cms. See below for details of what is required.

Estimated for the components is around \$8 for the Bargraph and LM3914 IC. The other parts plus a piece of veroboard should not exceed \$10.

In all a well worthwhile project to give your piece of equipment a lift. If you have any question please contact me.

Ian, vk3axh

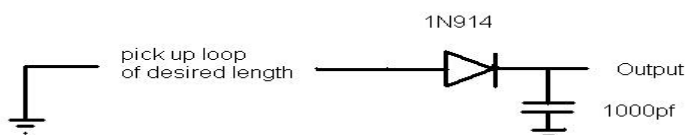


Fig 1. Circuit

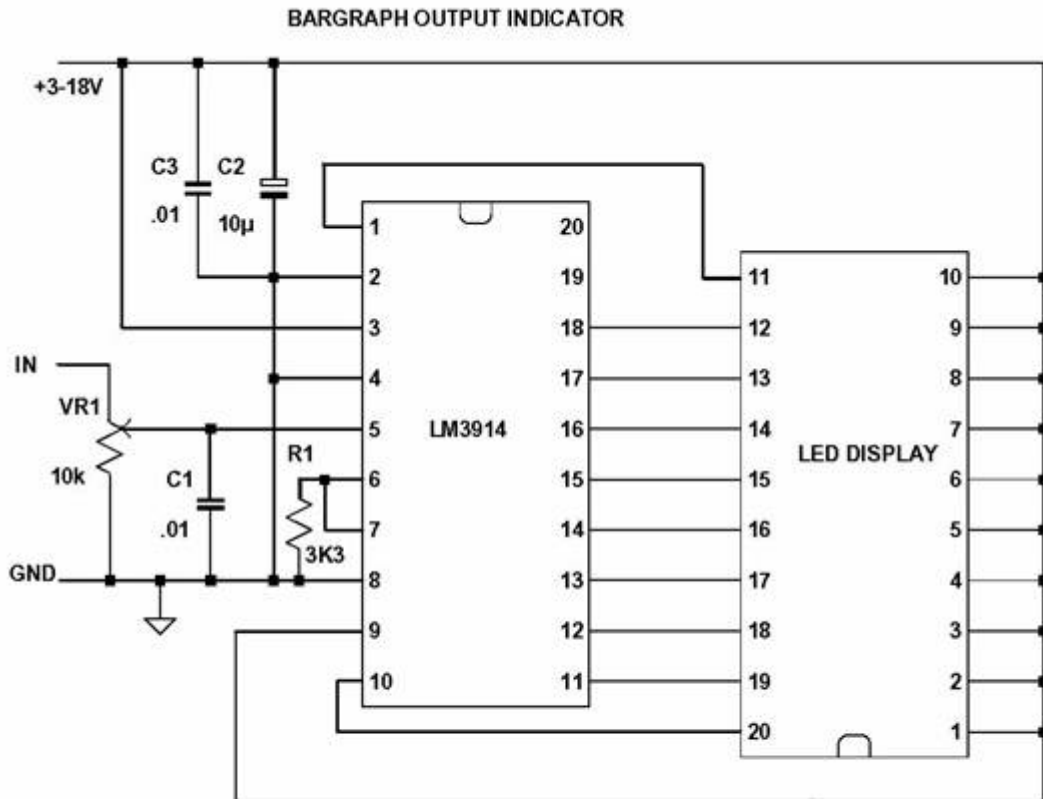


Fig 2: Layout

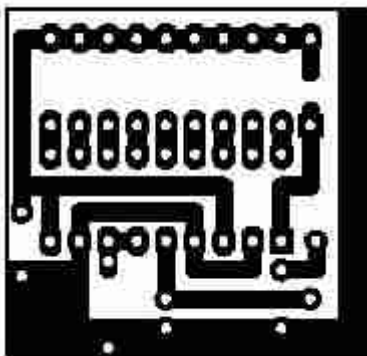


Fig 3: Overlay

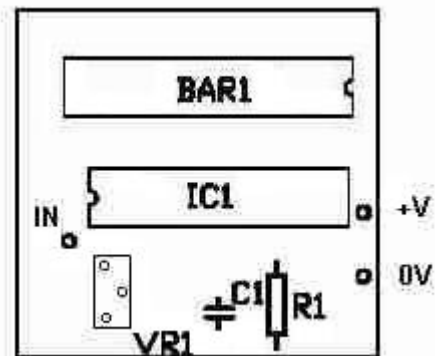


Table 1 Components for display

Component	Value
IC1	LM3914
VR1	1.0M vertical mount preset
R1	3k3
BAR1	10 LED bar display
C1, C3	0.01uF ceramic
C2	10uF 25V electrolytic

QST Review for July 2006

Well here is the second attempt at the review. I just erased the nearly completed document as I am getting used to a small laptop keyboard and miss hit the keyboard. Ah well!!

The normal sections of the magazine are there again, and I would encourage everyone to look at them as well as the construction articles. Some of the newer members may have some questions they would like to ask but may feel embarrassed to ask. Older club members may also find explanation for questions they have wondered about also. Always worth looking through.

Interested in Loop antennas for 432Mhz? Have a look at Lowe's Loop. While not really a closed loop its more like a bent dipole, but has a Omni directed beamwidth. The plumbers will love this for the sale of copper pipe will increase and also a lovely medium to work with. To increase gain you can stack them into bays easily and for that you will need a power divider. This also can be easily constructed using copper pipe and the coax linear transmission line is all enclosed in the pipe.

Have you a drawer of used but unknown condition diodes and don't know how to test them all. Why not build a very simple curve tracer using the computers sound card and download a program from the ARRL site and test the lot.?

A handful of resistors and two LM358 Op amps is all that you need to put together on a piece of vero board. Maybe someone would like to try and demo it at the club one night!

Into High power linears? Then see the article on pp37.

Three position coax switch for remote antenna switching. Useful for a single coax feed into the shack .

Build yourself a very simple CAT5 cable tester for a fraction of cost of buying a commercial one. Interested in propagation reporting then look at the World wide beacons and time stations and use them to understand band conditions. See article on p44 and visit

www.ncdx.org/Beacon.BeaconTools.html and to automate the computer visit the FAROS site at www.dxatlas.com/Faros/ and watch the bands alive.

The following pages discusses when will the bands improve, and refers to the bottoming of the present 23 sunspot cycle due to finish this October then rise ! to a max about Jan 2011.

Nobel prize winner Joe Taylor K1JT is interviewed about his life and his development of the now famous Narrow Mode WSJT software.

Have a look at the Doctor is in if you want to learn how good PL259 and SO239 coax connectors are at VHF & UHF. Where did the term of "73" come from that we fraternally use to say cheerio at end of a conversation.

The Doc also discusses the problems associated with height of antennas and the distance they can each see over terrain allowing for curvature of the earth.

Hands on Radio this month looks at Experiment #42 on Notch Filters.

Construct a simple Twin T filter for playing with your audio pass band. It uses a single 741 Op Amp and a handful of components. Give it a try and as the article says the notch can help copy a 40M signal while a foreign BC station has its carrier in your receivers passband. This may make a suitable club project for including in the audio line of the rig.

Hints and kinks looks at using kneedle nose pliers as a vise, inexpensive cable ties and a simple way of substituting a back up memory battery for the TS940 or similar rigs. Seems these

sets use the common garden variety CR2032 and CR2450 "coin" batteries but with solder lugs.

The cost is abnormal so W8JV has used two toothed washer solder lugs and a piece of heat shrink tubing to substitute. Well worth looking at his idea.

This month QST reviews a number of SMPS from well known suppliers and reviews the Alpha Power 4510 Wattmeter.

WICEN and Field day type should read the article by N3MRA on p73 and see what he takes away on field activities and compare to your kit. As he suggests you should check the gear out sometime to just see what you may have left out sometime. He has a basic survival pack, which is purely for his own comfort/safety then has extra packs with different gear for extended periods.

Finally there are the regular competition and DX reports and then the commercial part with all the advertisements which I enjoy reading. I even found a web site to look at for a digital rotor controller which I am considering at the moment.

Remember that reading always is enjoyable activity and you can learn things and go interesting places by reading.

The library is your's to use.

73 Craig

Propagation Report for July 2006

Well another month has rolled by and there doesn't seem to be much happening in the way of DX heard by me when scanning the various HF Bands.

A similar occurrence with the VHF and above bands as well with just the usual die hard amateurs working 2 metres SSB from VK3 to VK1/2/5 and VK7 on a fairly regular basis.

I attended the Gippsland Technical Conference in early July where Andrew VK3KAQ gave a presentation on the tests done by Ross Hull with ducting on the Eastern Seaboard of the USA. It helped explain some of the strange things that happen with our long distant contacts when inversions occur.

If you are interested in this topic then its well worthwhile looking out for the published notes when they become available.

Project Group.

At our last club meeting great interest was shown in the Antenna Analyser that appeared in AR magazine. At this time there are around 14 members who indicated they would like to take part in this project.

The suggestion is to make the printed circuit boards at our construction night and supply all the components for the printed circuit board only. It will then be the responsibility on the builder to get their own box, meter, switches and associated components to meet individual needs.

I hope to have a basic price for the pcb and its components at the July General Meeting.

73...Ilan vk3axh

Amateur scaling down for smaller QTH Sale

- ✓ Nally telescopic tower, 3 inch square, winches from 4 metres to 8 metres height. G.C. \$125.00
- ✓ Gal. ladder, purpose made to match the above tower. \$125.00
- ✓ YAESU SP-8 switched dual – input speaker unit with switched hi and low cut filters. New in carton. \$200.00
- ✓ ICOM IC-746 transceiver all-mode, 100 watts o/p, HF to 148 Mhz, etc. \$1500.00
- ✓ ATN 8 element yagi 144 – 148 Mhz. E.C. \$60.00
- ✓ MJF – 1701 HF antenna switch box with UHF connectors, 6 way output (or input)\$60.00
- ✓ MJF – 1112 Multiple terminals D.C. distribution panel. New \$60.00
- ✓ Emtronics EPS-30 regulated P/S. 13.8 V. DC at 30 Amps. \$300.00
- ✓ Digitor Model D-2510 RF Amp for 144 – 148 Mhz. 30 Watts out when driven by a handheld. Includes switched Gas-Fet receive pre-amp. \$45.00
- ✓ Multitester fet input, 22 Range with analogue display. \$45.00
- ✓ Marconi 100 dB step attenuator, TE 1073, 75 ohm in/out with bnc connectors. \$55.00
- ✓ 6 m, ½ wave, ground independent antenna \$20.00
- ✓

Numerous unlisted items.

Also available lots of ‘FREE BEES’.

Contact: Len VK3BMY, Lake Gardens. Tel. 03 53376450.

Visits and inspections welcome, pse arrange by phone.

FOUNDATION LICENCE COURSE.

BARG is running another FOUNDATION licence course on Sat/Sun the 16 & 17th Sept 2006 at the club rooms at Ballarat airport. I have two people who have responded to attend this course so far. If anyone wishes to sit for this licence on these dates then please contact me direct on vk3cmc@barg.org.au or by telephone on **5342 2448** for inclusion on the list. We only need a couple more names as a smaller group provides more interaction between participants. Copies of the Foundation Licence manual are available from the Wireless Institute of Australia at Caulfield, or through the BARG club Secretary. See www.wia.org.au

Craig Cook
VK3CMC
WIA Examiner

B.A.R.G. Inc.

(Ballarat Amateur Radio Group Inc. #6953T)

ANNUAL SUBSCRIPTION & CLUB REGISTER CHECK

DATE:.....

RECEIPT No:.....

NAME:.....

CALL SIGN:.....

ADDRESS:.....

PHONE HOME:.....

SUBBURB:.....

MOBILE PHONE:.....

POSTCODE:.....

PHONE WORK:.....

SUBSCRIPTION PAID:..\$......

E-MAIL:.....

If the Club decides to publish a Club Directory, are you willing to have the above information included?

Y or N

SIGNATURE:.....

B.A.R.G. Inc.

(Ballarat Amateur Radio Group Inc. #6953T)

ANNUAL SUBSCRIPTION & CLUB REGISTER CHECK

DATE:.....

RECEIPT No:.....

NAME:.....

CALL SIGN:.....

ADDRESS:.....

PHONE HOME:.....

SUBBURB:.....

MOBILE PHONE:.....

POSTCODE:.....

PHONE WORK:.....

SUBSCRIPTION PAID:..\$......

E-MAIL:.....

If the Club decides to publish a Club Directory, are you willing to have the above information included?

Y or N

SIGNATURE:.....