

B.A.R.G. News



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

VOLUME 29 ISSUE 10 October 2006



President: Bob Pitcher VK3NBV
Secretary: Ian McDonald VK3AXH
Treasurer: Gordon Cornell VK3FGC

NEXT MEETING - FRIDAY 27, 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: vk3bml@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.



Presidents Message.

Bob, VK3NBV

Hi all,

Once again we are heading for the most important part of the year for BARG's finances. **The Hamvention.** This is when we ask all members to put in for the greater benefit to all.

Sunday November the 5th is the day, our arrival needs to be 7am to set up the tables etc. Traders are let in at 8am to start their setups, and the public at 10am. Thanks to you all in anticipation. The location of course is The Great Southern Woolshed on the Western Highway, Melbourne side of Ballarat. Let's have all members there with our BARG name tags on.

By the time you read this JOTA will have been a big success, thanks to John VK3CFH.

Good to see the Queenslanders back from holidays and rearing for action,. I'm very pleased to see Harry back to seat himself in the Editors chair.

Saying that, a great big thank you to David VK3UR for stepping in and putting in a big effort to get last months edition out.. Thanks from us all David..

Next club meeting is October 27th at 7.30pm, Final arrangements will take place for the Hamvention.

Also a reminder memberships subs are now due and will be accepted at the meeting..

Congratulations to new persons to pass the Foundation License.

They are Karen VK3FVTX

Hutch VK3FHUT

Ed VK3FEDD

Ben VK3FBLT

Peter V~~k~~3FPUB

Interesting lot of callsigns aren't they ?

Congrats to Craig 3CMC and his merry band of helpers for getting us these new amateurs on the air, let's all make them feel very welcome..

Great job done by all those that attended the recent working bee. It all looks bright and shiny out there. Great !!!

That's it from me, see you at the meeting and Hamvention.

73's Bob Pitcher VK3NBV.

From our Secretary.....



Ian, VK3AXH

Minutes of General Meeting September 2006

Meeting opened by President Bob VK3NBV

Apologies VK3WN, VK3KGL, VK3BNC, VK3HRZ, VK3CAZ, VK3DCS

Welcome to Hutch who has just successfully completed the Foundation Licence exams and the return from UK Murray VK3AAI

Minutes of August meeting as circulated Moved VK3KQQ/VK3CFH. Carried

Business Arising from minutes Nil

Correspondance In: Rotary Club Ticket info, Award info from WIA re grant, Subs VK3PH

Out:: letter to Ross VK3SR for his donation of equipment to BARG Moved VK3ADX/VK3HHK Carried

Finacial statement Tabled by Gordon VK3FGC/VK3BEB Carried

Reports:

Ammenities: Doug VK3VBA reported on a few areas in need of repair which included the library door, both toilets. It was suggested a Working bee be held on 14th October

Club Nets: Clem VK3BVI all is well with plenty in attendance on 3610KHz Western Zone 2m hook up still well attended

Dining Night To be held at the Ballarat Leagues Club 20th October

Construction Night: Analyser project progressing well.

Education: Craig VK3CMc reports that 5 candidates sat for and were successful. Committee to look into resources to conduct Exams for members of the Scouting Fraternity

Newsletter Thanks to David VK3UR for this months newsletter in the absence of Harry

Radio Modernisation Project: David VK3UR that a computer was kindly donated by Roger VK3ADE for use at the club rooms.
David also attended the presentation of the City of Ballarat Grant award and was presented with a cheque for \$1995 which can be used fund some of the other items of the upgrade.

Ross VK3SR donated a 25 amp power supply to BARG and a new SWR meter was purchased from Strictly Ham. The shack console is undergoing upgrade with the help of Merv VK3ADX. The WIA grant cheque will be presented either at the next General Meeting of BARG or the Hamvention.

Hamvention: Hiring of tables going ok. A few things to sort out namely the Home Brew Equipment location, and Catering requirements

JOTA: John VK3CFH reported the event will be on 21/11 October at Pax Hill – some assistance required

Publicity Coug VK3VBA has approached the Courier/News for club activities and that Ballarat Auto Sound has paid for advertising space in the newsletter for the next year.

General Business

A letter to be send to Dick Smith Wendouree re attendance at the Hamvention.

BBQ on 8th October at Laanacoorie. Meeting and leaving from Maxi carpark at 10am








List of Keyholders to be updated and some means of making a key available to gain access to the clubrooms to be resolved by the committee

Mailing address for Len VK3BMY is PO Box 1256, Wendouree Village.3355

Motion: Moved VK3UR/VK3BEB that the club purchase a UPS Rotary Dipole as part of the Radio Modernisation Project Carried

Damascus College 25/26 October re demo of Ham Radio VK3CFH, VK3AIG and VK3AXH to attend.

Meeting closed 9:00pm

<p>HEWITT & WHITTY Pty. Ltd. Outdoor Power Equipment</p> <p>Cnr Carngham Road & Wiltshire Lane Ballarat VIC 3350</p> <p>Phone: (03) 5336 1344 Fax: (03) 5336 1027</p> <p>Damien Hennessy Sales / Spares Mobile: 0417 313 811 Email: damo_611@hotmail.com</p> <p></p>	<p>     </p>
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Propagation Report October 2006

This month I am unable to report of any activity on the HF bands as like so many other I haven't been listening around.

However I can report on the higher band activities as there has been some lift in propagation over the past few weeks.

Kevin VK3WN reports some activity on 6 metres with an opening to VK4 between Brisbane and Hervey Bay. Its been a couple of months since Kevin has heard any signals on this band. Perhaps the onset of early summer may be providing early propagation on the "Magic Band"

2 metres has been quite good with regular openings to VK1, VK2, VK5 and VK7 with locals VK3WN, VK3AIG, VK3KQB, VK3IDL, VK3CMC and VK3AXH amongst those involved.

On Wednesday evening from around 8:30 onwards there is a local SSB group on 144.160 so why not join in the discussions. This group commences after attempting to register with the 144.150 SSB group run by Rob VK3EK from Bairnsdale which is always challenging. If you're interested come up and see what you think about the challenges that weak signal operators attempt to achieve

70cm – Both VK3WN and VK3AXH have had contacts into VK5 with varying reports.

1296 and 2400 – Progress is being made in a couple of shacks with these bands. I'm told there is some activity taking place in the Cape Clear and Ballarat North area's so it shouldn't be long before we hear Craig and John up and running

2400 – I can report that the two Ian's had a successful test on this band on the 3rd of October when portable stations were set up at Green Hill and the Black Hill area. With both station running around 50mW and using modified MDS antenna's signals were 5x9+ over the short distance of approx 9 km's. It is hoped this distance can be extended in the next couple of weeks.

The next effort is to get the power level up so several watts.

Construction Group

There's a bit of a buzz around the place now that several participants have completed the Analyser project. The next construction night will see some evaluation being undertaken to determine just how well they are working so come along and join in the fun.

Brian VK3KQB is getting some bits and pieces together for some possible projects down the track.

If you have any ideas and want to participate in this very worthwhile activity then please let the group know. Remember you don't have to do what someone else is doing. If you have a project that is of interest to you then bring it along and share the experience with others attending.

73's Ian vk3axh



QST Review August 2006

Craig, VK3CMC

Well its another month and again another QST review. Seems just like I looked at the July edition and here's the next one.

This month is hailed as the annual antenna issue, so the first article covers "building UHF yagis the practical approach" pp28. The author W6PQL likes using the DJ6WU wideband yagi design and uses the John Drew VK5DJ web site for *Yagi Calculator* at www.vk5dj.mountgambier.amateur.radio.html for additional usage. If you are just a beginner in rolling your own antennas for VHF and UHF then this design is well tried amongst the VHF fraternity. Also the saying that "a picture is worth a thousand words" bears looking into as there are some fifteen close up photos of how to make the folded dipole driven element, the matching balun for these units. Another secret is shown as how to accurately measure the same distance along a circular boom when you need to make two or more booms for stacked beams. Very simple really. And how do you drill multiple holes thru a round tube so that all the elements are in the same plane at the end? Read this article.

More interested in an 15 & 20M loop antenna. It has two elements and droops downwards. An extra bonus of this one is that it will resonate on 10M as well although the SWR is slightly higher [less than 3:1] but a good ATU will make it better than that with about 9dBi forward gain.

Pp35. Read about going mobile on VHF and the effects of the path and propagation when using a repeater. It considers the multipath signals from various buildings and other natural formations.

A compact Quad multiband antenna is discussed on pp38 and how to easily match to it for four band coverage. The loop covers 40 to 15M and uses 18G enameled wire. It uses 72 feet [they still use feet in the USA] for the loop and another 72 feet for the open wire matching section. An advantage of the loop is its resonance on all multiples of the fundamental frequency design allow it to be used on 80 through to 10M but not the newer WARC allocation bands.

The famous Dayton 2006 Hamvention is given a run through on pp40. This must be a place to see if you are going over stateside. Only problem is fitting some of the heavier bargains there into the cabin baggage on the return home. The theme this year was towards newer licences and accent on young people.

The Doctor answers queries on making ones own ladder line feeder [see previous article for the quad antenna] and how to calculate the desired matching impedance using different sized wires AWG. Another question deals with fusing BOTH the positive and negative leads on a vehicle mounted unit and where to connect the leads to the power source.

Another query concerns power line noise and haow to locate the source for remedy.

A review of a new Free charge portable energy source is very similar to the early Alf Treager pedal radio power source for the RFD service in out back Australia. Used for low powered battery equipments [7AH capacity] it can be recharged with 15minutes of pedalling.

Are you keen to know how good earth's really are in antenna installations then read the article pp48 in the getting To Know Your Radio section. Worth knowing best way to protect your station when lightning is nearby.

Want a simple dual 2M and 70cm vertical antenna for home or even to take to field day or WICEN activities. Look at the article on pp50 and see how simple it is to make from pvc plumbing and aluminium tubing. Having broad band characteristics and acceptable SWR on both bands, well under 2:1 its another idea for the home constructor.

Hands on Radio pp52 looks at RF Oscillators Exp #43. Following on from Phase shift oscillators last month #17 the author describes how to make an amplifier oscillate by use of positive feedback. Some simple mathematics and we look at the basic oscillator configurations of the Hartley and Colpitts and the relative advantages and disadvantages of each one.

They encourage construction of simple circuits to try your own hand at "homebrewing" and describes a simple breadboard or "ugly" construction to make a usable base for next months article which will allow you to build your own tunable Hartley oscillator for a 40M transmitter. Give it a go.

Hints and Kinks this month pp54 looks at 1. Errors in the May H&K article on making your own High Voltage capacitors. 2. A tuning fork as a Tuning Aid for CW. 3. Repairing a damaged boom on a beam antenna.

REVIEWS this month are on medium to HP antenna tuners. For low power units look at the review in May 2004 QST [100-200W max]

MICROWAVE interests may care to look at pp76 and read about: how to read frequencies accurately at these frequencies. The article discusses GPS and the REFLOCK systems for doing this.

Another section in the magazine takes us back 75, 50 and 25 years ago and reviews what was in the August edition in 1931, 1956 and 1981. Makes for some interesting memories for old timers, [especially Gordon!! In 1931 Ross Hull describes his transmitter for "Duplex Phone on 56Mc." Well worth a look at what I would call MEMORY LANE.

Who knows we may just have one or two copies of the old editions in the Library for members to peruse.

Finally there are the commercials to look at and if you are into contesting and such like activities. I notice that our Presidents mother is up in the DXCC with a score of 341 overall score also. Well done Gwen.

That's all for this months review. Look forward to seeing the magazine, and all the others doing the rounds of individual shacks in future weeks.

73 Craig VK3CMC

QST Review September 2006

Well here is another month and another review. Hope there's something for you all this month. Starting with the regular features. The Doctor is In, they answer a couple of questions. What about a soft start in rush circuit for a high power linear? Also a perennial problem with out of band intermod problems on 2M. What can be done to minimise the effect using modern radios? Running a high current rig from a battery and float charging it also discussed .

Finally some additional discussion about an earlier Doctor response. [Jun 2006] about Velocity factor in coaxial cables, and use of hard drawn copper in wire antennas. There is a correction to the earth's radius given in a previous calculation. Did you know the radius is just under 4000miles. ? They still use miles in the US yet the military uses Km? Strange.

HANDS ON RADIO is a continuing series of Experiments in basic electronics. This month we look at RF Oscillators Pt2 on the standard Hartley oscillator. This circuit is easily recognised as it utilises the tapped inductor.

HINTS AND KINKS. Has a number of topics but the one that caught my eye was about making your own trophies for a club presentation. Have a read of this one.

TECHNICAL CORRESPONDENCE. An interesting discussion on RELAY versus PIN Diodes for RF switching. And a lengthy coverage of using an antenna analyser.

SHORT TAKES. Has a review for the MFJ-4712 Two position remote antenna switch. At US\$80 this may seem a bit high but the unit can be used with 1Kw from 1.8 to 150Mhz. The unit is powered up by running DC to the remote through the coax cable via a "Bias Tee" box. Connectors used are the SO239 [UHF?] type.

Articles this month are:

Frequency Counter modules. Two designs are offered for a stable Direct Digital Synthesis [DDS] VFO and a Frequency counter.

Looking for an Uninterruptible power system for 24/7 operation have a read of this article on pp33. Antennas again in the "Revisited Extended Double Zepp" which is a one and a quarter wavelength long doublet fed by open wire and a Balun to convert to coax cable. The pattern is best at broadside to the wire and has about 2.5 to 3.0dBi over the standard dipole. A very low SWR can be obtained.

Home brewers may care to look at the low cost morse key article. Tie it in with the Hints and Kinks article on trophies and it could be a "chippies" project.?

Interesting article on using Bird Wattmeters and how to get an extra range without the need to buy another slug. Pp49.

PRODUCT REVIEW: Ten-Tec Orion 2 HF model 566 Transceiver. Heil have a Handy mobile microphone.

The Wireless Institute of Australia again mentioned in the look around the borders. A cover copy of AR and article acknowledges the success of the Foundation licence in this country and also the UK. Other countries and their Amateur bodies are mentioned along with overview of their current activities and subscriptions. Pp79

OLD RADIO Looks at the WCY/MCY Cape May, New Jersey radio station from 1910 when Marconi built the first station on the roof of the Hotel, Cape May. It includes a letter from one of the earliest operators who started as a telegraphic in 1906 with the Western Union company. Some photos are included.

APRS on the satellites and the ISS pp82

Of course the usual contests and advertisements abound at the end.

Craig, vk3cmc



from Rick, VK3BEB

...But is it Amateur Radio (Revisited)

Amateur radio has gone through many changes since it's inception. The early experimenters such as Marconi, Hertz, Tesla and of course my personal favourite and Kentucky melon farmer of note, Nathan Stubblefield have all added to the knowledge base of technology that has grown to become the pastime we love so much.

But with new innovations came the inevitable controversy. When CW replaced spark, when SSB overtook AM, when no-code licenses were adopted, all these events and more were pronounced as sounding the "death knell" for Amateur Radio. Fortunately the doomsayers were not entirely accurate in their predictions of the eminent demise of the hobby.

My latest foray into the "is it Amateur Radio" realm comes in the form of a new computer based radio the "Cormac CQ-100" and a VoIP system called "QsoNet". <http://www.qsonet.com>

This system is quite new and has been developed by VE3EFC – Doug, a 56 year old software developer in Thunder Bay Ontario and the folks at Cormac Technologies in Canada.

Quoting from the Company FAQ:

"The CQ-100 transceiver is the first software program that provides access to the QsoNet ionosphere. This program looks and feels like a real hardware radio transceiver. Radio operators can switch to their favorite HF band, tune in a frequency and call CQ. They may choose to listen-in on other conversations ("QSO's") while tuning across the band. The computer microphone provides voice modulation, or the keyboard may be used to send Morse code. Several stations may engage in a round-table QSO. Operators are expected to use standard radio procedure, and call sign identification. Access to the system is restricted to amateur radio stations holding a valid radio license issued by the government of their country."

"QsoNet is designed to avoid the complicated configuration of router ports demanded by some Internet voice programs. The system will work from most airports, hotel rooms, and Internet cafes. Secure Socket Layer (SSL) encryption technology is used to protect call signs and passwords at all levels."

Although the system does have a cost associated with it (\$32.00 USD per year) it is available as a free trial for 90 days and the software is available for free download until November 1st.

This system is only available to licensed Amateur Radio operators and I found the registration and set-up process quite easy and painless. After a brief on line sign up I received an email with links to the pages to complete the registration process. A photo of my license was sent via the page link provided and in about 2 hours (on a Sunday afternoon) I was verified, up and running. The software for the radio is about a 2.5 Meg download and is said to work with Windows 2000 and XP systems although I have it installed on a Windows 2003 Server system here and that too seems to work with no problems.

The software displays a modern digital radio and is pretty much plug and play with no port forwarding or router configuration necessary. All I needed to tweak was the audio level for the microphone in Windows volume control panel and I was off and running making my first “contact” in about 30 seconds. The radio features a pan-adaptor display and signals are indicated as pips in the display window. Tuning and other control adjustment is accomplished via the mouse and can also be done through keyboard shortcuts. A copy of the operating manual is available as a free download from the site, but operation is very intuitive and is much like most other modern radios.



The audio of the system is excellent and FM quality. The S metre moves in sync with the incoming audio and there is even background noise to provide a more realistic radio like experience...but when you tire of the hiss the squelch button can be activated to suppress the sound effects and provide true FM style operation.

CW is generated in the radio by entering text via the keyboard but the author has plans for a key input in future releases. Decoding the code is done “The Old Fashioned Way” via the operators ears interface. As an interesting note there are CW practice stations in the 20 metre band that are available to hone your skills.

While some would argue that this isn't the way Amateur Radio was meant to be it does provide a break from the doldrums during the current lull in the sunspot cycle. And because the operators using this service are all licensed Amateurs, they have all been courteous and a pleasure to “work”.

There is little doubt that with more hams moving into space and deed restrictive properties and still wanting to chat with like-minded individuals, these alternate modes of communication will be considered and used by many in the Amateur Radio community to supplement conventional radio contacts.

Now, if the IARU, WIA and ARRL will only institute some awards for these new modes, maybe I can finally snag my CDXCC (Computer DX Century Club)!

73,
Rick
VK3BEB