

BARG News



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

VOLUME 32 ISSUE 4 April 2009



President: Doug Raper VK3VBA
Secretary: Doug Ellery VK3FDRE
Treasurer: Peter Pollard VK3FPOL

NEXT MEETING - FRIDAY April 24, 2009
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 | SK |
| Norm D'Angri | VK3LBA |
| Phil Seddon | |
| Stan Widgery | SK |
| Gordon Cornell | VK3FGC |

CLUB INFORMATION

REPEATERS and BEACON

D—STAR

| CALLSIGN: | MODE: | FREQUENCY: | TX OFFSET: | USER SETTINGS |
|------------------|---------------|-------------------|-------------------|--|
| VK3RBA A | Digital Data | 1298.700 MHz | Nil (half duplex) | URCALL: VK3RBA RPT1: VK3RBA A RPT2: not in use |
| VK3RBA B | Digital Voice | 439.9875 MHz | -5.0 MHz | URCALL: CQCQCQ RPT!: VK3RBA B RPT2: not in use |

| | | | |
|--------------|--|-------------|---------------|
| VK3RBA (UHF) | (70 cm Voice Repeater (Uses CTCSS of 91.5 Hz to access)) | 439.275 Mhz | Mt Buninyong |
| VK3RBA (VHF) | (2 m Voice Repeater) | 146.750 Mhz | Mt Buninyong |
| VK3RWA* | (2 m Voice Repeater) (Uses CTCSS of 91.5 Hz to access) | 147.100 Mhz | Mt Ben Nevis |
| VK3RPC | (2 m Packet Repeater) | 144.750 Mhz | Mt Warrenheip |
| VK3RBU | (70 cm Voice Repeater) | 438.475 Mhz | Mt Hollowback |
| VK3RMB | (70 cm Beacon) | 432.535 Mhz | Mt Buninyong |
| VK3RBU-1 | (2 m APRS Repeater) | 145.175 Mhz | Mt Hollowback |

* IRLP Node 6310 using VK3RWA

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

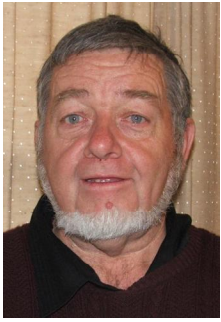
Broadcast Times and Dates on VK3RWA Repeater

Every Sunday at 11.00 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



QST Report with Craig, VK3CMC

Content review of current QST in library

QST Review 2009 – March, April



This month March is known as the Antenna Edition.

- P24 Incoming Correspondence.
- P30 Building a Five Band G3TXQ Broadband Hexagon beam.
- P34 Zip cord antennas and Feed lines for Portable Applications.
- P37 The 3Y0X Peter 1 Island 160 Meter Beam.
- P40 Designing and Building Transistor Linear Power amps,
- P44 Freestanding 2 Meter J Pole antenna.
- P46 Review Analogue HF/VHF Wattmeters.
- P49 Review. High end Dual lever Keyer Paddles. Compares six models.
- P53 Tech Correspondence. Ant's in trees, remote controls, Echo delays DX, Magnetospheric Ducting, DC power distribution.
- P56 DX 9X0R Rawanda 2008
- P59 US License activity is on the rise. Total US Amateurs now 663,500.
- P62 Emergency Communications
- P64 Doctor is In. Answer to a wide range of questions.
- P66 Short Takes; RTrak All in One APRS Tracker.
- P67 The W4SSY Spudgun, for launching Antenna wire into trees.
- P70 Getting on the Air. Living with RF Safety. EMR and safety calculations.
- P72 Hands on Radio Exp#74 Resonant Circuits.
- P74 Easy build 500W Mini Balun.
- P75 Hints & Kinks. Make front panels with a computer, Simple PCB Prototyping.
- P89 World above 50MHz. Comparing VHF+IF Strips.
- P92 The 2008 DX Year in Review.
- P95 Eclectic Technology looks at Digital "Weak Signal" FM?
- P96 Vintage Radio. A Hamfest that started in 1934 and still running today.
- P102 Review QST contents from Mar 1934, 1959 & 1984
- P103 Hamspeak. Glossary of terms found in this edition ,

Rest of magazine is filled with advertisements and ARRL club matters.

April 2009

- P24 Interesting topics in Correspondence
- P30 Bringing early SS Transceiver into the 21st Century. The Drake TR-7
- P34 Hairpin Tuners for matching Balanced Antenna Systems.
- P37 A 20Metre Moxon Antenna. Smaller than Yagis.
- P41 Removable HF/VHF Mobile Installation. Generic ideas.
- P44 REVIEW: DC to AC Power Invertors. Sine and Square types.
- P49 REVIEW: MH-C9000 Battery Charger.
- P51 "Where is Bob" Looking at APRS.
- P54 VK Alpine Winter Mini Expedition. By VK3SN & VK3GT.
- P57 Americas Oldest College radio club turns 100. Now known as W1MX.
- P59 Sky Chatting. DX Dialogue.
- P60 Party time on 40 Metres. Broadcasters to vacate 7100-7200kHz.

- P69 Skywarn ten year Anniversary day.
- P72 Doctor is In: Antenna baluns and 450 ohm feeders, Snow flake charges on the antenna, stranded versus solid copper wire for antennas.
- P74 Short Takes: New feed line choke available
- P75 Hands on Radio, Exp #75. Series to Parallel conversion.
- P77 PSK Ten Years On.
- P78 \$5 Boom mike arm is Superior audio.
- P81 Hints & Kinks. Assorted ideas for antennas problems.
- P91 The World above 50MHz. Looks at the rarest grids.
- P94 New IARU President elect. Tim Ellam VE6SH/G4HUA
- P98 Chinese to launch a Ham Satellite this year.
- P99 Vintage Radio. Jack Barnsley,9BP, Prince Rupert, British Columbia.
- P103 Hamspeak. Glossary of terms used in this edition.

Rest of magazine is filled with advertisements and ARRL club matters.

That's all for April 2009.

Also would like you to put request in magazine for the person who has borrowed the new copy of Swainstons "Radio Theory for Amateur Operators [Green cover] to return same to club or to at least sign it out correctly in the Library loan book. We went to use it at WE and its not there anymore. We only got it after our Hamvention last year.

Craig.
VK3CMC

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Doug, VK3FRDE

The Secretary's Page

Minutes of the BARG General Meeting – 27th March 2009

Meeting opened at 1930 by President Doug VK3VBA.

Apologies

VK3FPOL, VK3HRZ, VK3KGL, VK3AXH, VK3KP, VK3FIVE.

Attendance

Approximately 25 Members

Minutes of the Previous

(February) general meeting had been previously distributed, they were passed as correct.
Moved Bill PAL / Clem BVI carried

Secretary's Report

Correspondence In: Nil

Correspondence Out: Copy of Motion from Bob BNC to ARV, WIA and WICEN re: non-operational status of Mount Arapiles repeater, application to WIA for liability insurance.
Moved Bob BNC/ Stewart ASH - Carried

Other Reports

Social – Guest speaker following the meeting tonight, dining night at Beaufort Hotel had been enjoyed by all, next night to be at Crown Hotel Buninyong.

Repeaters – Roger ADE reported that Ben Nevis was operational and performing well, thanks in no small part to Nick Presser who had not only helped with the re-installation, but had supplied new co-ax cable and connectors, members voted that a letter of thanks should be written to Nick. Mt Buninyong was still only producing low power output.

Construction – Brian KQB has ordered Toroids for members wishing to wind a 4:1 balun, cost approximately \$11.50. A future project will be building of tone access boards to allow members using sets without this facility to access repeaters, Brian and Ian AXH both have access to a small quantity of commercial boards.

Amenities – Gordon FGC and John CFH have sprayed weeds at clubhouse, and picked up 6 sheets of chipboard from Ballarat Joinery

Education – Craig CMC Has 5 applicants for examination on 28th / 29th March, 4 foundation, 1 advanced. Craig had been contacted by two people as a result of our notice in “The Courier”. Licensing procedures and costs have changed recently.

Hamvention – Doug VBA has located about 26 trestles that may be available. Doug FDRE can access approx. 8

General Business

Bill Wells VK3PAL had a story to recount, through a series of misadventures Bill had been late paying his licence fee, and had lost his callsign. As it was still available when he did pay, he re-applied for it, and was told it would be OK, at the time of the meeting, Bill still hadn't had his callsign re-instated.

At the committee meeting Roger had suggested that we should approach our fundraising with some goal in mind, something tangible to apply our efforts to. A laptop computer was one suggestion, owning our own trestles another. David VK3BUR thought that there were probably better ways of spending our money than on a laptop, although this might be a good subject for a grant application. There was general support for the idea of targeting our fundraising.

Ted HHK was interested in ordering some heavy-duty 7 metre squid poles, a special price would apply if a box of 20 was ordered, it appeared unlikely that this number would be reached.

Stuart FSTU noted that we distributed our Newsletter to several other clubs, and asked if this was a reciprocal arrangement, the answer was that if they chose to send them, we made them available for our members to read.

Bob BNC asked if there had been any response from ARV re: Mount Arapiles repeater, answer was negative.

There being no further business, meeting closed at 2030 Next meeting 24th April at 1930

Following the meeting Gordon FGC spoke about his experience with WICEN at the Kinglake / Whittlesea and Alexandra bushfires in February, WICEN had about 30 operators active during the Victorian fires, and the responsible officer had worked for 168 hours co-ordinating and organising the WICEN activity. Gordon said that the way the emergency services adapted to the circumstances and co-operated with each other was a real eye-opener, and a credit to all involved.

***Disclaimer:** While I have endeavoured to make these minutes an accurate record of the meeting, I may not necessarily have succeeded. If I have upset anyone by error or omission I apologise.*

Doug Ellery

VK3FDRE

Secretary BARG

VK3RWA - Tone Access

For those Amateurs that have older equipment that does not have the ability to generate sub audible tones we would refer you to the following PCB's and Kits that are made available by the Waverly Amateur Radio Club in New South Wales.

http://www.vk2bv.org/2001-website/w_freq.htm#F0

In addition to the Waverly Club information her is a link to the original designer's instructions and installation information for a few of the older rigs.

http://www.vk2bv.org/w_ctcss.htm

At this stage BARG is contemplating a bulk order for these kits to be used as part of a member's construction night in the near future.

Roger, vk3ade



Now I know what he looks like.

Bill – VK3PAL

Mujibar was trying to get a job in India ..

The Personnel Manager said, 'Mujibar, you have passed all the tests, except one. Unless you pass it, you cannot qualify for this job.'

Mujibar said, 'I am ready.'

The manager said, 'Make a sentence using the words **Yellow, Pink** and **Green** .'

Mujibar thought for a few minutes and said, 'Mister Manager, I am ready'

The manager said, 'Go ahead.'

Mujibar said, 'The telephone goes **green, green**, and I **pink** it up, and say, **Yellow**, this is Mujibar.'

Mujibar now works at a call centre.

No doubt you have spoken to him. I know I have.

He also works for AMEX, ANZ, NAB, Telstra etc etc....

CTCSS???

(By Brian, vk3kqb)

Why???

In this age of electronics with IT, elaborate communication systems, computers, electronically controlled industrial and domestic devices and general interference from power lines etc. all this crud can enter the circuitry of repeaters locking up the system and timing it out.

So we need to control our repeaters so that only our equipment can operate it.

This can be achieved by fitting a circuit to the repeater which allows the transmitter to be turned on by a low frequency tone which is below the audible range of the modulation of the transmitter. This sub-audible signal is supplied by the user's equipment and must be generated constantly to hold the repeaters transmission open.

How???

An encoder device, which is an oscillator tuned to the correct frequency, is these days retro-fitted to the transceiver we own. If not it has to be installed to it.

This oscillator when turned on has to run constantly and has to be fitted to the modulation circuit after the normal modulation has been generated. The reason for this is that the microphone output is usually processed by the audio circuits in the amplifier to limit the audio response and gain to give the best input to the modulator and would not pass the ctcss tone.

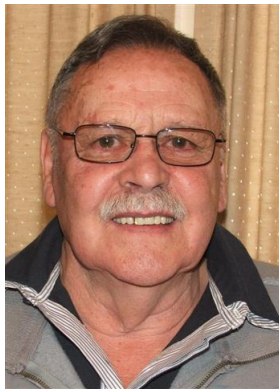
Requirement???

The encoder can be fitted at a convenient site and requires normally 5 to 12 volts DC which can be connected permanently so no on/off switch is required.

The frequency generated must be correct for the repeater to be used.

The encoder input should be set to give a deviation of the transmitted signal of 0.5 to 0.7 kcs and set when the microphone signal is not present.

There are sources of the necessary equipment to set the frequency and deviation if required within the Club and can be arranged during the "Construction Nights".



Doug, VK3VBA

Presidents Report

Hi to all members.

March produced a varied event month, an enjoyable day on the bus to EMDRC hamvention, deposit paid for our venue for our hamvention in October, we had a good roll up in April for our construction night when Brian 3kqb guided members through the process of construction of Baluns.

Whist on the subject of construction next month we will be manufacturing CTSS boards for 2m radios that do not have this function cost is approx \$ 20-00 so make the most of this offer and up date your radio.

Next month is our annual George fowler auction so have a search of your shack and see what quality (ha ha) items you would like to dispose of.

As you may remember April the 15th was a very windy day and for Roger 3ade and some other members including myself delight that no crackle on the repeater on Mt Ben Nevis it would appear that the second antenna on the mount has done the job.

It was moved at our last committee meeting that a board be installed in the club rooms to allow members to advertise that they have equipment for sale or want to purchase items.

We are looking for volunteers to tutor students at Damascus College next month approx two hour sessions on two days it's a great day out and the food is splendid.

Congrats to Craig vk3cmc and his team on a successful weekend 28th—29th of March four candidates trained and where successful in passing their Foundation license.

And one other candidate sat and passed his Standard license.

Well done by all concerned.

That's all for now keep safe see you on Friday the 24th

Doug vk3vba

I HAVE NEVER WONDERED WHY. (From Brian, vk3kqb)

Carbon is black, coal, pencil lead, graphite, tar on the road, chard wood and many other forms of carbon are BLACK.

Why then is bicarb of soda white?

Why is a diamond transparent?

Why is carbon dioxide not black but invisable?

Have a think about this puzzle of nature, just think that if carbon dioxide was black what our air would be like. When we breathed out in a confined space the air would get darker until we would loose vision even if we turned on a light.

Perhaps some bright spark can tell us why. I am sure someone can put pen to paper for the next months Mag.