

BARG News



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

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

NEXT MEETING - FRIDAY March 27, 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



Doug, VK3VBA

Presidents Report

The calendar year is flying by, March has gone now looking at April.

A lot was achieved in March although the Group did not participate in the John Moyle other things were done, booking venue for hamvention, putting repeater back on Ben Nevis, bus to EMDRC and a lot of people looking at instruction manuals of radios on how to program CTTS to access Ben Nevis.

A lot of work was done behind the scenes without the knowledge of some members but its all good fun.

A very good attendance was recorded at our construction night Brian vk3kqb gave a lecture on the use of oscilloscopes and what they can do for you in the shack, many thanks Brian.

Call books will be available at our March meeting.

A request for trestle tables to be available for our Hamvention in October so if any members can help please speak to a member of the hamvention committee it would be greatly appreciated.

That's all from me see you at the next meeting 27-03-09

Doug vk3vba

Two old radio hams sitting in the park

One said to the other me missus said what are you doing

He said nuthin

She said that's what you were doing yesterday

He said I haven't finished doing it yet

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Repeater Tone Access.

I have been asked to summarise the use of **tone access** on the Ben Nevis repeater and its relationship to **CTCSS**.

Strictly speaking Ben Nevis has a **tone access** requirement and in order to open the mute and key the repeater a sub audible tone of 91.5Hz must be included on the caller's transmission, without the tone present it is impossible to key the repeater.

Once the repeater is keyed the 91.5Hz tone must be maintained for the duration of the transmission or the repeater will de-key.

The WIA has recommended two frequencies for tone access for repeaters around Australia, the primary is 123.0Hz and the alternative is 91.5Hz. Because VK3RGL at Mount Anarchy and VK3RBA the Mount Buninyong UHF repeater use 91.5Hz we decided to use the alternative frequency of 91.5Hz.

Any of the older rigs that are modified to produce tone access could then find use across all of the currently tone access equipped repeaters in the Western region.

Why did we decide to modify the Ben Nevis repeater and include the requirement for tone access?

I think most VK3RWA users would be aware that prior to the modifications we had some problems with the repeater.

1. The repeater was being keyed by a very low level, intermittent signal from some unknown device in its coverage area. I think this has been a long standing problem and goes back to the previous incarnation of the repeater.
2. The interference was compounded by an internal fault in the 'noise rectifier' of the repeaters receiver that once keyed on the interference kept it keyed for extended periods, this was not evident on normal voice transmissions, this fault has been rectified.
3. We regularly experienced interference from the users of the Bass Hill repeater in Gippsland, several times a day we would hear one way conversations through the repeater. If the Bass Hill repeater ever incorporates tone access then it will more than likely use 123.0Hz as the access tone to ensure we do not revert to the original problem.
4. On a note that has nothing to do with **tone access**, users will have noticed a 'crackling' in the transmitted signal from Ben Nevis when the wind gets to a reasonable speed. This has been an ongoing problem for a long time. In an attempt to isolate this problem a separate and temporary receive antenna has been installed at the site. The original antenna is now only used for transmission.

There has been a lot of reference to **CTCSS**; a full implementation of **CTCSS** on the repeater has **NOT** been implemented. As a rule of thumb **tone access** is used on the repeater input and **CTCSS** is used on the output.

CTCSS or **Continuous Tone Coded Squelch System** is used control the users receiver mute level, if the correct sub audible tone is present then the receiver mute will open otherwise it will stay closed. There is a sub audible tone on the output of VK3RWA but it has been configured to track the input signal. No tone is transmitted on the repeater tail or during CW identification, the sub audible tone of 91.5HZ on the repeater output and is present only to assist with the control of the IRLP link back to the BARG clubrooms.

If you have an older rig then that does not support **tone access** of repeaters then all is not lost, there will be some discussion of your options at the next general meeting as well as the possibility of assembling some modules to supply the tones during the regular construction nights. The ideal situation will be to produce a module that is switchable between 123.0 Hz and 91.5 Hz, note, there is no need to switch the module off on when using repeaters that do not have **CTCSS** or **tone access**.

A further question has been put as to where users can get the latest repeater information including settings for **CTCSS** and **tone access**. The WIA maintains a very up to date list of repeaters on their web site and this can be down loaded as a 'pdf' file. The correct URL is,

<http://www.wia.org.au/members/repeaters/data/documents/Repeater%20Directory%20090314.pdf>

For those that do not have internet access, just remember that there are a number of computers at the BARG club rooms that have internet access and also a printer attached, if you need help then just ask, we have a large base of members who can help.

We hope this answers some of the questions around the changes at Ben Nevis and undoubtedly you will see more repeaters following the same path as the community generated interference increases and repeater density also increases.

Regards - Roger VK3ADE.



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