

# BARG News



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

**VOLUME 32 ISSUE 1 January 2009**



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

**NEXT MEETING - FRIDAY January 28, 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](mailto: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

| <b>CALLSIGN:</b> | <b>MODE:</b>  | <b>FREQUENCY:</b> | <b>TX OFFSET:</b> | <b>USER SETTINGS</b>                                 |
|------------------|---------------|-------------------|-------------------|--|
| VK3RBA A         | Digital Data  | 1298.700 MHz      | Nil (half duplex) | URCALL: VK3RBA<br>RPT1: VK3RBA A<br>RPT2: not in use |
| VK3RBA B         | Digital Voice | 439.9875 MHz      | -5.0 MHz          | URCALL: CQCQCQ<br>RPT!: VK3RBA B<br>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)   | 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](mailto: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 [yk3kgl@barg.org.au](mailto:yk3kgl@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

Two months between meetings is a long time I have been told by two members and yes it certainly is, members will be together and back to normal by the end of this month.

I hope everybody had a good Christmas spending time with friends relatives and close family its certainly a time to bring people together.

A few activities have been held since our last meeting e.g. Murray River Marathon, thanks to Craig 3cmc and Bob 3nbv

Setting up new investments..... New bank... accounts to name a few, committee have not been sitting idle.

An exciting announcement will be made at our January meeting re a successful application for substantial amount of money from a Federal Grant.

A great night was held at our rooms for the occasion of our Christmas breakup 33 members and partners attended, even Father Christmas arrived unannounced and he had gifts for all attending.

I will not be able to attend our January meeting but everything will be under control with a stand in President.

All the best and keep safe

Doug, vk3vba

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# QST Report with Craig, VK3CMC

## Content review of current QST in library

### QST Review 2008-12 Dec.



- P9 Next Spectrum Challenges. The Editorial.
- P30 Pounding Brass using the Sound card of a computer.
- P33 Modular Rcvr for Exploring the LF/VLF bands. Part 2. [See Nov08]
- P38 Low noise HF Loop and bonus 2M beam.
- P40 REVIEW. Perseus Software Defined Receiver 0-30Mhz.
- P46 Ghost QSO's. Olivia MFSK - The Magic mode.
- P48 "Make that list and check it Twice" Christmas is coming !
- P50 New Products: Smaller items.
- P51 BPL again. City takes over from private company.
- P58 Doctor is In. Answers a range of questions that are submitted.
- P60 Short Takes: Reviews The ARROW 2 146-4BP beam for 2M.
- P61 Time to tune up that straight key. For CW fans.
- P62 Hands on Radio. Ex #71 Circuit Layout. Using breadboards and effects to circuit wiring.
- P64 Hints & Kinks. Portable ant tripods. Corroded battery connections, Textured paint for cabinets, sound card caveats.
- P90 World above 50Mhz. "Maunder & other Minima"
- P93 Eclectic Technology. Promoting ATV on the Internet. Note picture from VK2RTS Sydney.
- P 94 Old Radio. Read logs from 1923 expedition to the North pole.
- P99` Reviews QST for Dec 1933, Dec 1958 and Dec 1983
- P101 Hamspeak. Lists word bibliography used in this edition.
  
- P158 Index to Advertisers
  
- P52 Interesting note that Pennsylvania is the 27<sup>th</sup> state in USA to pass law that guarantees Amateurs the right to erect towers up to 65feet without need for Special Use Permits. Could that ever occur in Oz??

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

That's all for Dec 2008.



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**Rob Knott**  
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|   |  | <p><b>KOHLER</b> engines</p>                       |  |

# Article from the past.....

## Vertical Antennas

This article was published in a BARG magazine years ago by Leo McPherson VK3ALM. These antennas on ten and fifteen meters were used by Leo and Geoffrey VK3ADB with great results at the Ballarat North Technical School. All three are now deceased. They were mounted on a large flat metal roof and at the height of the 10/10 awards saw Ballarat promoted all around the world. Leo was the local Chapter Head and instigator of local 10/10 activity at the time. He also “Fathered” other BARG awards. He gained a DXCC award as a mobile operator. **Bob, vk3bnc**

| WAVELENGTH  |        | OHMS |  | CAPACITANCE in P'FADS |       |       |       |       |       | ANTENNA HEIGHT in MM's |       |       |      |      |      |
|---|--------|------|--|-----------------------|-------|-------|-------|-------|-------|------------------------|-------|-------|------|------|------|
| DEG   | FRAC'N | R/R  | Xc   | 160m                  | 80m   | 40m   | 20m   | 15m   | 10m   | 160m                   | 80m   | 40m   | 20m  | 15m  | 10m  |
| 144   | 0.4    | 600  | Res  | -----                 | ----- | ----- | ----- | ----- | ----- | 63400                  | 31700 | 16154 | 8047 | 5365 | 3993 |
| 135   | 0.375  | 300  | 200  | 450                   | 220   | 112   | 55    | 37    | 28    | 59440                  | 29720 | 15090 | 7560 | 5030 | 3750 |
| 113   | 0.315  | 90   | 80   | 1125                  | 550   | 260   | 130   | 94    | 70    | 49680                  | 24870 | 12620 | 6310 | 4206 | 3140 |
| 103   | 0.3    | 72   | 60   | 1500                  | 730   | 375   | 185   | 125   | 92    | 47550                  | 23775 | 12195 | 6096 | 4023 | 2987 |
| 99  | 0.275  | 50   | 25   | 3600                  | 1750  | 900   | 444   | 300   | 220   | 43586                  | 21794 | 11065 | 5517 | 3688 | 2743 |
| * 90  | 0.25   | 36   | ¼ Wavelength shows only Radiation Resistance (R/R) |                       |       |       |       |       |       | 39624                  | 19812 | 10058 | 5030 | 3353 | 2500 |
| The above Antennas (Except 90 Deg) need capacitance. Antennas below (less than 90 Deg) require Inductance |        |      |  |                       |       |       |       |       |       |                        |       |       |      |      |      |
| 45  | 0.125  | 12   | * USE FORMULA BELOW TO CALCULATE INDUCTANCE        |                       |       |       |       |       | 19812 | 9906                   | 5030  | 2515  | 1676 | 1250 |      |

This table was used very successfully to design antennas for a Radio Club at Ballarat North Technical School. The original chart was discovered by Bob, vk3bnc from a NZ Publication, I think. Using the figures, Geoff, vk3adb and I built antennas for three different bands, 10, 15 and 20 meters.

Contacts were made all over USA and Europe, and weekly skeds were held with Anjo High School in Japan.

I lost the original, but fortunately kept some notes, and the table above is developed from them.

An explanation of the chart:

The left most column shows the antenna height in degrees.

The second column gives the same height as a decimal fraction.

The third column is the theoretical radiation resistance (R/R) at the input (base) of the antenna.

The fourth column shows the capacitive reactance to be expected from the antenna.

The next six columns show the value of the capacitance for the foot of the antenna.

The other six columns give the length of the antenna in millimeters – easy to convert to meters.

Example: say that a 10-metre (28MHz) antenna is required to match a 50 ohm coax line:

1. Run down the R/R column until 50 ohms is reached (opposite 99 degrees)
2. Move horizontally to the 10m (ten meter) column and find 220 Pico farads, the necessary capacitance.
3. Move further horizontally to the second 10m column and find the height of the antenna – 2743 mm ( 9.0 feet exactly)

# Craig's Page.....vk3cmc

Here are recent qsl RECEIVED for both 2M and 70cm contacts from 12Dec with Wally VK6WG and just earlier this month from Norm VK7AC. I am still waiting for a card from ZL3TY from last year on 2M SSB.

Hope there will be more openings this summer.

73 Craig

Confirming QSO with VK3CME on 4.52.1 mhz  
Date of Contact 12-11-08 Time 2.150 WAST hours

**VK6WG** OF84wx WIA  
WW Green, 10 Victoria St, Albany WA 6330

Antenna 15' OVER 15' 26' YAGI  
Transceiver IC-746  
Your signal R 4 S 2 T..... Remarks.....  
73 Wally

WW LOC. QE381P TASMANIA ISLAND - AUSTRALIA  
CQ ZONE 30  
ITU ZONE 59  
IOTA OC-006  
SMIRK #6473

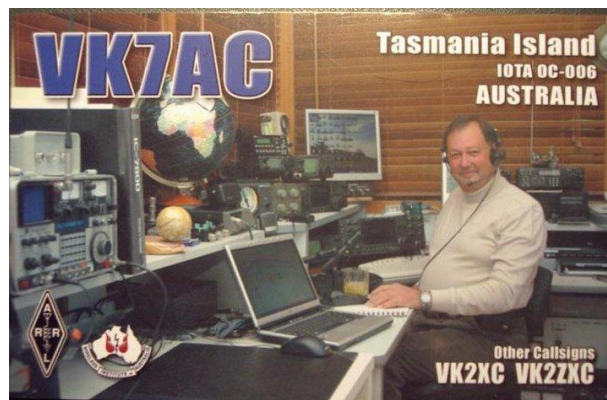
**VK7AC**

CONFIRMING QSO/SPL REPORT: QSL VIA.....

| TO RADIO | DATE |       |      | UTC  | MHz   | RST | 2-WAY |
|----------|------|-------|------|------|-------|-----|-------|
|          | DAY  | MONTH | YEAR |      |       |     |       |
| VK3CME   | 3    | 01    | 2009 | 2141 | 432.1 | 5.9 | SSB   |

NORMAN DEITCH  
19° Alpine Crescent  
7277 GRINDELWALD  
TASMANIA - AUSTRALIA  
E-mail: vk7ac@gmail.com.au

73's Norm Deitch  
PSE QSL TNX Q



Two antennas met on a roof, fell in love and got married.

The ceremony wasn't much, but the reception was excellent.

A man walks into a bar with a slab of asphalt under his arm, and says:

'A beer please, and one for the road.'

I went to buy some camouflage trousers the other day, but I couldn't find any.

A man woke up in a hospital after a serious accident.

He shouted, 'Doctor, doctor, I can't feel my legs !'

The doctor replied, 'I know you can't - I've cut off your arms !'

