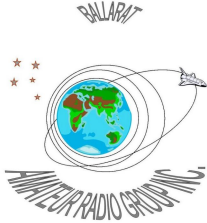


# BARG News



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

**VOLUME 32 ISSUE 9 SEPTEMBER 2009**



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

**NEXT MEETING - FRIDAY September 25, 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

Gordon Cornell	VK3FGC
Norm D'Angri	VK3LBA
Harry Hekkema	VK3KGL
Kevin Hughes	VK3WN
Ian McDonald	VK3AXH
Phil Seddon	
Charlie Stewart	VK3DCS
Bob Terrill	VK3BNC

## 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 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](mailto:vk3bml@barg.org.au).

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

**WIA Broadcast** Sunday 11.00 am 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](mailto:vk3kgl@barg.org.au)

#### Broadcast Times and Dates on VK3RWA Repeater

Every Sunday at 11.00 am, WIA National News.

Every Monday night at 9.30 pm, ARRL News

Every Tuesday night at 9.30 pm, WIA National News Repeat



**QST Report with Craig, VK3CMC**  
**Content review of current QST in library**  
**QST Review 2009 - 8 August**



- P9** Editorial. The ARRL finding out what the FCC didn't want to let the public know about the BPL saga.
- P20 Read about how an Australian VK4XH Paul Mason helped win the battle of Guadalcanal in WW2.
- .P30 Diamonds in the sky. High performance omni on 2Meters.
- P33 Build a MOXON antenna for 10Meters.
- P37 A Four output bench supply.
- P41 No special Tools SMD De-soldering technique.
- P42 The Ignition Switch.
- P43. Errata or Feedback on past editions. Check to update your articles.
- P44 Bluetooth and Ham Radio. Look Ma No Hands.
- P46 Product Review. Alinco DJ-175T 2M FM handheld.
- P48 product Review: Four power supplies.
  - 1. Daiwa SS-505. 2. Jetstream
  - 3. JTPS45.,MFJ4245MV, 4. Samiex SEC1235M.
- P53 Technical Correspondence. Build a Ferrite Antenna current Probe. Clean up AGC induced AF Distortion in the Yaesu FT1000.
- P55 The Doctor. Clock Pgm for UTC on the screen. CW. Straight or Iambic keys. Double fusing in car radio installs. Tower grounding's & Coax choking before shack entry. RFI and computer speakers.
- P57 Hands on Radio. Experiment #79. PI and T Networks.
- P59 Short Takes. The PIEXX SO2Rxlat to LPT Translator.
  - SO2R = Single operator two radios.
- P60 Hints & Kinks. Anchoring Coax cable.loose connections on the house fusebox.. Auto duco discolouration under clamp antenna's.
- P66 Catch a Net on your radio. Listen and learn about Protocols.
- P68 Contents of QEX for July/Aug 2009.
- P73 Public Service.. Emergency Communications. Send data on HF.
  - Program uses MT63 protocol.
- P84 How's DX? ZL7T Chatham Is DXpedition 2009.
- P86 World above 50Mhz. Long Dist Es Propagation On 50Mhz at Solar cycle Minimum . Part 2.
- P89 The DXCC Honor Roll.
- P95 Eclectic Technology.
  - 1.Your Hard Drive is Going to FAIL.
  - 2. Fiber alternative to BPL?
- P96 Vintage Radio. Looking at Vintage Oscilloscopes.
- P100 Strays. Read about QST on Tape for Visually impaired for 28 years.
- P101 QST Index for Aug 1934, Aug 1959 and Aug 1984.
- P103 Hamspeak words and descriptors.
- P156 QST Index of Advertisers and Emaqils.

Advertisements galore.

That's all for August 2009.

Craig.

## By Reg, vk3caz An Active D.C. Dummy Load

What, in heavens name, would you need an active dummy load for?

Well consider your nice expensive 13.4 volt rig sitting on the operating bench being fed from a mains power supply.

Now if your power supply is what we call a 'linear power supply' the only thing between your rig and a d.c. supply of at least 18 or 20 volts (maybe higher) is the best behaviour of a pass transistor or two. Should that transistor go 'short-circuit' then the 18 or so volts feed straight onto the poor rig.

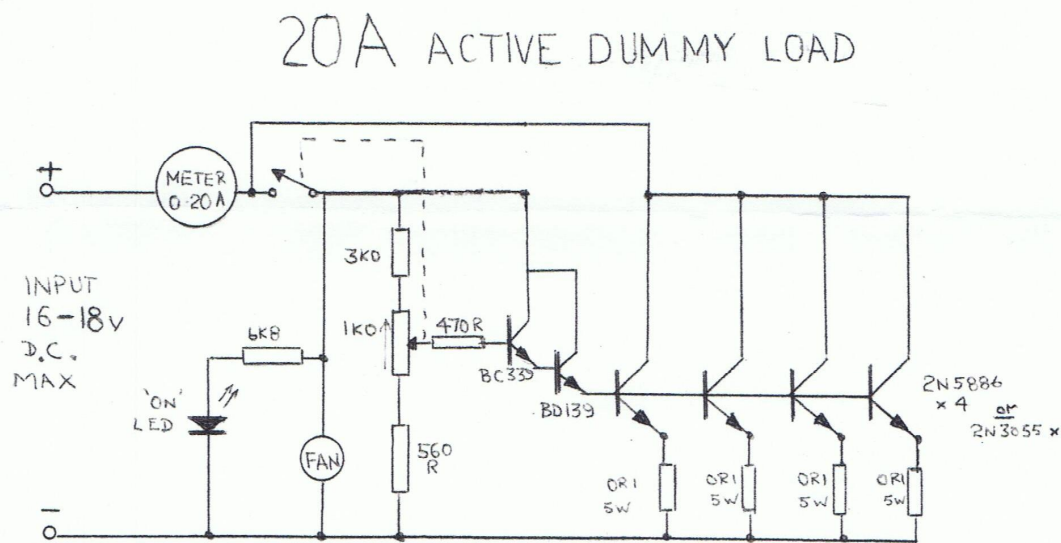
So the best thing to do is to subject the power supply to a long 'soak test' and this is what the active dummy load does. The four transistors act as very low value resistors, cooled by the fan and drawing a suitable value of load current from the power supply as controlled by the variable potentiometer and measured by the ammeter.

With a bit of care and modifying the whole thing can be built into a Computer power supply case using the fan already present to blow cooling air over the heatsinks on which the power transistors are mounted. I used 2N5886 transistors which were handy but 2N3055's will do equally well.

The BD 139 is mounted on a separate heatsink in the bowels of the case. If you use a computer power supply case it is possible to open the cooling slits at the rear of the case using a pair of pliers to increase the flow of cooling air over the heatsinks.

Equally, if your power supply is one of those dreadful 'switch mode' units (which I don't trust since they are built 'down to a price' rather than up to a standard) then this unit can test it under heavy load to ensure it will be satisfactory before trusting your rig to its mercies.

'T'aint difficult' and you can relax a little about the safety of your rig when using it for long periods if you know the PSU is capable of delivering all the current needed.



## **10GHz Record from Mount Buninyong to Mount Barrow Tasmania**

On Thursday 10<sup>th</sup> September an attempt was undertaken to break the 10GHz digital communication record by Australian amateur radio operators.

Ian VK3AXH together with David VK3HZ from Melbourne and Ian VK3YCQ from Portarlington met at the foot of the fire watch tower on Mount Buninyong around 11:30am with the view of setting up 10GHz equipment near the top of the tower with an attempt to establish communications with Rex VK7MO and Joe VK7GJ on Mount Barrow in the northern part of Tasmania.

Not much time was needed to lug all the necessary bits and pieces up to the top of the tower where access was gained to the communication hut above the fire watch observation level to setup David's equipment.

Frequency of operation was to be 10.368100GHz using the WSJT digital program in the JT65A mode. Frequency accuracy was achieved by using a GPS locked frequency reference and the low frequency transceiver on 144.1MHz was the small FT817 all mode transceiver.

We were contacted by Rex to say he was ready to commence transmission and no sooner had he started we could clearly hear the audio tones coming out of the FT817. A two way digital contact was quickly completed with signal levels of around -11 to -15dB.

After several overs we decided to try SSB and with some lift in propagation we were able to communicate using voice with signals up to S9 both ways. All participants took turns to exchange call signs and reports albeit using the equipment of David VK3HZ.

The equipment comprised of a FT817 for the 144MHz IF and a DEMI (downeast microwave inc) transverter running around 8 watts of power to a 450mm dish mounted on a tripod and aimed towards Tasmania through the Perspex window of the hut.

In the pictures you can see the dish, laptop, and various other bits to make up the installation. Equipment on the top shelf is part of a commercial service and not part of the 10GHz setup.

We then went on to have a contact with Alan VK3XPD in Melbourne and even though the dish was realigned and firing through the timber and cladding of the hut wall we were still able to get up to S8 SSB signals from Alan's home qth.

A great result with the VK digital record on 10GHz now out to 510km's. A very satisfying day was had by all and at last the weather was kind to us with only a slight breeze and no rain.

Hopefully this story will inspire others to get stuck into some home brewing and get the satisfaction that can be reached with this great hobby of AR.

73, Ian VK3AXH

## Some photo's from Mount Buninyong to Mount Barrow



**Owing to a very generous donation to BARG of a complete HF station we are asking for expressions of interest from members interested in purchasing this complete set up.**

Condition can only be described as excellent.

ICOM IC-725 with UI-7 AM/FM board. Has owners manual ( original owner ) circuit and microphone.

ICOM PS-55 power supply

MFJ-914E ATU with coax and open wire facility. Unit has cross needle SWR meter inbuilt.

SWR meter...Nondescript type no brand.

Multimeter type ECS-820B. Also no brand.

Expressions of interest will be received up till September 16th.

Anyone interested in viewing the item please contact the writer before this date.


Doug Raper

53323565.....0408323565

dougr@ncable.net.au

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The boss walked into the office one morning not knowing his zipper was down and his fly area wide open. His assistant walked up to him and said, 'This morning when you left your house, did you close your garage door?' The boss told her he knew he'd closed the garage door, and walked into his office puzzled by the question. As he finished his paperwork, he suddenly noticed his fly was open, and zipped it up. He then understood his assistant's question about his 'garage door.'

He headed out for a cup of coffee and paused by her desk to ask, 'When my garage door was open, did you see my Hummer parked in there?' She smiled and said, 'No, I didn't. All I saw was an old mini van with two flat tires.'

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**Next DEADLINE for articles is the 20th of June!!!**

## BARG Calendar for 2009/2010.

Month:	Construction Group:	Committee Meeting:	Dining Night:	General Meeting:	Notes: Other Activities
October	Mon 12 <sup>th</sup> 7.30pm	Wednesday 21 7.30pm	Friday 16 <sup>th</sup> 6.30pm	Friday 23 7.30pm	<b>Hamvention 25</b> <b>Coffee Morning</b> <b>Thursday 22 10.30</b>
November	Monday 9 <sup>th</sup> 7.30pm	Wed 18th 7.30pm	Friday 20 <sup>th</sup> 6.30pm	Friday 27jth 7.30pm  7:30pm	<b>Coffee Morning</b> <b>Thursday 26th 10.30am</b> <b>Beechworth Bakery</b>
December	Mon 14th 7.30pm	No Committee Meeting	Fri 18th 6:30pm <b>XMAS</b> <b>BBQ</b>	<b>No</b> <b>General</b> <b>Meeting</b>	No Coffee Morning
January	<b>No Construction</b> <b>Night</b>	Wed 20 <sup>th</sup> 7:30pm	Friday 15th 630 pm	Fri 29th 7.30pm	Coffee Morning Thursday 28th 10.30am Beechworth Bakery
February	Mon 8th 7:30pm	Wed 17th 7:30pm	Fri 19th 6:30pm	Fri 26th 7:30pm	Coffee Morning Thursday 25th 10.30am Beechworth Bakery
March	Mon 8th 7:30pm (12th Labour Day)	Wed 17th 7:30pm	Fri 19th 6:30pm	Fri 26th 7:30pm	<b>John Moyle Memorial</b> <b>Field Day Contest</b> <b>Coffee Morning</b> <b>Thursday 25th 10.30am</b> <b>Beechworth Bakery</b>
April	Mon 12th 7:30pm	Wed 21st 7:30pm	Fri 16th 6:30pm	Fri 30th 7:30pm	Coffee Morning Thursday 29th 10.30am Beechworth Bakery
May	Mon 10th 7:30pm	Wed 19th 7:30pm	Fri 21st 6:30pm	Fri 29th 7:30pm	<b>Sun 30th May George</b> <b>Fowler Memorial</b> <b>Auction</b> <b>Coffee Morning</b> <b>Thursday 27th 10.30am</b> <b>Beechworth Bakery</b>
June	Month 14 <sup>th</sup> 7.30pm	Wed 16th 7:30pm	Fri 18th 6:30pm	Fri 25th 7:30pm	Coffee Morning Thursday 2 <sup>4th</sup> 10.30am Beechworth Bakery
July	Mon 12th 7:30pm	Wed 21th 7.30pm	Fri 16th 6:30pm	Fri 30th 7:30pm AGM	Coffee Morning Thursday 29th 10.30am Beechworth Bakery
August	Mon 9th 7:30pm	Wed 18th 7:30pm	Fri 20th 6:30pm	Fri 27th 7:30pm	<b>14/15 August</b> <b>Remembrance Day</b> <b>Contest</b> <b>Coffee Morning 26<sup>th</sup></b> <b>10.30am. Beechworth</b> <b>Bakery</b>
September	Mon 13th 7:30pm	Wed 15th 7:30pm	Fri 17th 6:30pm	Fri 24th 7:30pm	Coffee Morning Thursday 23 <sup>d</sup> 10.30am Beechworth Bakery



