

# BARG News



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

**VOLUME 36 ISSUE 1 JANUARY 2013**



President: John Kennedy VK3AIG  
Secretary: Doug Ellery VK3FDRE  
Treasurer: Roger De Valle VK3ADE

**NEXT MEETING - FRIDAY January 25, 2013**  
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)

We're on the web  
[www.barg.org.au](http://www.barg.org.au)

## BARG INC. LIFE MEMBERS

Maurie Batt *	VK3FGC
Gordon Cornell	VK3LBA
Norm D'Angri	VK3KGL
Harry Hekkema	VK3WN
Kevin Hughes	VK3AXH
Ian McDonald	VK3AQM
Phil Seddon	VK3DCS
Charlie Stewart	VK3BNC
Bob Terrill	
Stan Widgery *	
Jim Wright *	

**CLUB INFORMATION**  
**REPEATERS and BEACON**

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
VK3RBT	(2 m Voice Repeater) ( Uses CTCSS of 91.5 Hz to access)	146.650 MHz	Green Hill

\* **IRLP** Node 6310 using VK3RWA

**CLUB e-mail** [vk3bml@barg.org.au](mailto:vk3bml@barg.org.au).

**CLUB NETS**      VK3BML 3.608+/- QRM Thursday Nights at 8 pm E.S.T (Summer & Winter)  
146.650 MHz - Every Tuesday Night at 8 pm. (VK3RBT Repeater)

**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 [member.vk3kgl@barg.org.au](mailto:member.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, VK3KG**  
**Content review of current QST in library**

**QST Review**



**QST Review Jan. 2013**

- P4 Index page
- P13 Novel base for a J pole antenna in an apartment balcony.
- P24 Letters.
- P30 Cheap and Easy SDR
- P36 Down Periscope. Keep your vertical out of sight.
- P39 A Sampling Down Converter for LF Oscilloscopes.
- P44 A Tuned 2M hand held loop for transmitter hunting.
- P46 Build a Bias T that covers 1.8 to 230 MHz.
- P49 Best results if using a BALUN in your antenna System.
- P51 Review: ICOM IC-2300H 2M FM transceiver.
- P54 FX-2, A 40/30Metre QRP CW Transceiver.
- P57 Technical Correspondence: 1. Another Delta Loop Idea. 2. EMI Generated of Air Conditioner.
- P60 The Doctor looks at 1. Feed lines. 2.Third Order Intercept Point. 3. HF PSK31 reception concerns
- P62 Short Takes: A Four band Dipole Antenna.
- P63 Hands on Radio. Ex 120. Power Polarity Protection.
- P65 Eclectic Technology. New PSK-31 Apps for iPad and iPhone.
- P66 Microwavelengths. Antenna Measurement Methods and Equipment.
- P68 Hints & Kinks. Delay for T/R relays. Removing cores from coils. Stripping coax. Inexpensive mic Boom for shack. Setting True North.
- P70 Radio in Retirement- One mans Tale.
- P73 Spreading the Joy of CW. Old timers and newcomers.
- P75 A Trip to Homebrew Heaven.
- P84 US Postal Service seeking to phase out the IRCs.
- P91 Hows DX. Looks at the International Reply Coupons [ IRCs].
- P93 World above 50Mhz. The K5N Dxpedition.
- P97 Vintage radio. Looks at the ARRL emblem
- P102 Index of QST for Jan 1938, 1963 and 1988.
- P156 QST Index to Advertisers.

73 Craig.VK3KG

We are missing some Amateur Radio magazines that have not been logged in the library loan book.  
 Missing are: **JULY 2011, MARCH 2012, SEPTEMBER 2012, OCTOBER 2012**

All have been stamped with the clubs ID so they should be easy to see if someone has borrowed them and forgotten to put them in the loan book.

Although we do not have a large turnover of books being borrowed could those who do take copies try and return them in the month following so that others can have the opportunity to read them also.

We will soon be receiving copies of the Australian SILICON CHIP magazine [monthly] so that gives members a chance to read three different journals.

BA'S AUDIO WORKSHOP PTY. LTD. ABN 59 007 427 778  
trading as

# BALLARAT

**AUTO SOUND SPECIALIST**

and  
Radio Communications Systems Specialists  
Supply and Service

8 EASTWOOD ST., BALLARAT 3350  
Tel. 5333 4465 Fax. 5331 5851

**HEWITT & WHITTY** Pty. Ltd.  
Outdoor Power Equipment

Cnr Carrngham Road  
& Wiltshire Lane  
Ballarat VIC 3350

Phone: (03) 5336 1344  
Fax: (03) 5336 1027

**Damien Hennessy**

Sales / Spares

Mobile: 0417 313 811

Email: damo\_611@hotmail.com



**SupaSwift**

**Ariens TIGA**

**ECHO**

**CHIPPER  
CHOPPER**

**ep**  
Engineered  
Products Group

**KOHLER**engines

## COFFEE at the CLUB

(A Cuppa Tea is also available)



Join us for a Cuppa and a yarn or two on the  
2nd and 4th Thursday of each month  
(except January & December) at the Clubrooms.  
We start at 10.30am and finish at about  
11.30am, in time to get home for lunch.  
**COME ALONG AND JOIN US IN A NIBBLE  
AND A NATTER. (XYLs ARE WELCOME.)**



### B.A.R.G Items for Loan.

**Antenna Analyser MFJ269 HF-VHF-UHF**

**Antenna Analyser MFJ249 HF/VHF**

**UHF Antenna Analsyer**

**Antenna Analyser VHF. Autek.**

**Receiver Drake SSR-1.**

**Receiver FRG-7.**

**Transceiver TS-530.**

**Oscilloscope BWD 509.**

**Grid Dip Oscillator.**

**Safety Belt.**

**Antenna Gin Pole.**



## SILICON CHIP MAGAZINE NOW AVAILABLE IN LIBRARY

What's in this and next month....

December 2012

January 2013

### **PROJECTS TO BUILD—December 2012**

A 2.5GHz 12—Digit Frequency Counter, Pt.1

USB Power Monitor

High—Energy Ignition System For Cars, Pt.2

High—Power Class-D Audio Amplifier, Pt.2

Modifications For The Induction Motor Speed Controller

Hacking A Mini Wireless Web Server, Pt.2

### **PROJECTS TO BUILD—January 2013**

The Champion Preamp/Audio Amplifier Module

Build A Solar—Powered Skylight

Garbage & Recycling Reminder

A 2.5GHz 12—Digit Frequency Counter, Pt. 2

Performance Tweak For The Ultra—LD Mk. 3 Amplifier

### **AS WELL AS LOTS OF OTHER GOOD STUFF.....**

# BARG FIELD DAY PICTURES

Craig, VK3KG and Hutch, VK3FHUT busy at work.



Some pics of Bob's VK3NBV bicycle expedition to M R Power Reserve in Sebastopol showing the lavish open air portable shack.



## TECHNICAL CONSTRUCTION NIGHT MONDAY 7<sup>TH</sup> JAN 2013.

Well we made it through the silly season and returned to a new year. Although there was only six members at the club for our first meeting we enjoyed the company and heard about that mystery band up at 10,000 Mhz called 10Ghz. Kevin VK3WN gave an overview of the history and how World War two produced the Klystron valve which amateurs used initially to convert ex surplus radar and radios to allow them access to these previously unknown bands. He mentioned a plethora of articles in early editions of QST [circa the 1950's] that described how you can get active quickly. Later in the 1970's Philips produced some compact wave guide style horns for use in early type burglar alarms or door opening systems and the amateurs were quick to build some simple two way transceivers using them as stand alone or to feed into suitable sized dish antennas. The Philips devices used Gunn and Impatt diodes that were smaller than the klystron valves, didn't require high voltages and could be easily modulated.

Kevin then demonstrated his latest 10Ghz [3cm] transceiver using some locally produced pcb's and we looked at the latest way to generate drive signals and to lock the carriers to a stable reference frequency oscillator. One board available in the local market place will produce a number of selectable frequency outputs and allow the amateur to use the board for multiple setups.

Ian VK3AXH also brought along his compact 3cm unit and discussed his system and some construction hurdles that he found in his unit. Both units only produce output in the milliwatt region but there are suitable PA units that can be included in the future units. Although there were no antennas [dishes] present to see what Kevin and Ian are using there are plenty of designs about and small dish arrangements can be simply assembled.

Bob VK3BNC also brought along two tubular cavity filters he has constructed for use in his radio astronomy system and this shows how easily he made them from copper tube and pipe end caps.

These units were around the 400 Mhz band.

Thanks to Kev, Ian and Bob for the instruction.

# BARG EVENTS FOR

~ February 2013 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 Construction Night. 7.30pm  "Trapped with Craig"	5 2m Call Back 8.00pm	6	7 BARG Net 8.00pm	8	9
10 Kynton Hamfest!	11	12 2m Call Back 8.00pm	13	14 Coffee morning 10.30am  BARG NET 8.00pm	15 Dining Evening. "Lazy Moe's" Sturt Street	16
17	18	19 2m Call Back 8.00pm	20 BARG COMMITTEE 7.30pm.	21 BARG NET 8.00pm	22 BARG GENERAL MEETING	23
24 Wyong Field Day	25	26 2m Call Back 8.00pm	27	28 Coffee morning 10.30am  BARG NET 8.00pm	<b>Notes:</b> Any omissions or corrections please e-mail to VK3BNC.	

More Calendars: [Mar 2013](#), [Apr 2013](#), [May 2013](#)

Dead line for Magazine articles Sunday 17<sup>th</sup>. ( Last Sunday before the meeting!)



## Next Construction Night

**DON'T MIS IT!!!**

Next month [Feb] Craig VK3KG will talk about some HF trap design antennas and look at various construction ideas.

**'A fresh start to a new year'**

Hope one and all had a good break over the Christmas period and looking forward to the coming year.

We had a very enjoyable break up on Dec 14<sup>th</sup> and sincere thanks to the ever reliable band of helpers for arranging the set up.

With the first meeting coming up this Friday we will have a short snapshot of the workings of a typical Wind farm.

Should prove very interesting.

The Committee would like to have your ideas and input to make the group and meetings more interesting.

So please think hard and we will see you on Friday evening.

John, VK3AIG



## BARC VHF NET

VK3RBT 146.650Mhz FM

VERY TUESDAY NIGHT at 8 pm.

Control Station, JOHN, VK3AIG

## BARC HF NET

3.608 MHz +/- QRM

EVERY THURSDAY NIGHT at 8 pm E.S.T.

**VK3BML**



# BARG CHRISTMAS FUNCTION DECEMBER 2012 AT CLUBROOMS



**If anyone would like to see, 'What's in the VHF COMMUNICATIONS magazine, please let Craig know !**

**VHF COMMUNICATIONS.**

**Vol 44 2012-Q3 Autumn**

- P130 Results of Postal price Survey
- P131-146. Low Loss 10.7Mhz bandpass filter up to 500Mhz
- P147-154. Use of Electolytic Caps in DC power supplies.
- P155-163. Microwave Oscillators using Cavity resonators.
- P164-171. Directional coupler for the HF and VHF range.
- P172-181. An Electronic Compass. Use on the rotator that fails
- P182-189. . Using SMITH diagrams. [Reprint from 1/1984]
- P190-191. Internet Treasure Trove. Lists web addresses for various sites.

**Vol 44 2012-Q4 Winter**

- P194-203. High Stab osc with PLL multiplier for use with DDS components
- P204-206. 144Mhz power amp with feedback.
- P207-220. The Filter Bank Module.
- P221-225. Electronic Compass Windows display.
- P226-244. VLF Receiver with an Active Magnetic antenna & PC Sound card interface.
- P245-251. Modern Test set for Network Analysers.
- P252-253. Internet Treasure Trove. Lists web addresses for various sites.
- P254 Win 150 Euros worth of components.
- P255 Subscription form for 2013 [Direct mail]

See the web site <http://www.vhfcomm.co.uk>

To subscribe there is an Australian agent.

Mark Spooner c% WIA SA/NT Division GPO Box 1234 Adelaide SA 5001

**73 Craig  
VK3KG**

**If I agreed with you, we'd both be wrong.**

**Politicians and nappies have one thing in common.**

**They should both be changed regularly, and for the same reason.**