# BARG News

Official Newsletter of the Ballarat Amateur Radio Group Inc. # 6953T
ABN 44 247 200 143
**VOLUME 35 ISSUE 1 January 2012**

President: Craig Cook VK3CMC
Secretary: Doug Ellery VK3FDRE
Treasurer: Bill Wells VK3PAL

## NEXT MEETING - FRIDAY January 27, 2012
**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**

We're on the web
www.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

| | | | |
|---|---|---|---|
| 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 91.5Hz to access) | 146.650 MHz | Green Hill |

*** IRLP** Node 6310 using VK3RWA

**CLUB e-mail vk3bml@barg.org.au.**

**CLUB NET** VK3BML 3.608+/- QRM Thursday Nights at 8 pm E.S.T (Summer & Winter)
VK3BML VK3RBT 146.650 Mhz Tuesday nights 8 pm.

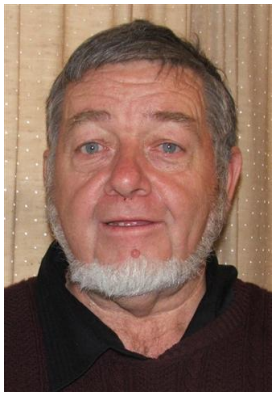
**WIA Broadcast** Sunday 11.00 am via VK3RWA (IRLP Node 6310

**NEWS ITEMS Send to Harry VK3KGL**

Or mail to Box 1261 Mail Centre BALLARAT 3354 or e-mail membermember.**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**



**Craig - VK3CMC**

# *Presidents Report*

Jan 2012

PRESIDENT'S RAMBLINGS.

Its January again and I hope you all had a great Christmas and ready to look into some new activities for the coming year.
An application was made to ACMA via the WIA to move the two beacons on 70cm and 23cm to our club site on Green hill. We await the approval.
I have been told that the new position will still be of benefit to distant stations when gauging the bands performance. Over the break there has been a number of excellent VHF opening to VKs 4,5,6 and 7 with a later opening across the Tasman to a number of ZL's. Ian VK3AXH has just received his QSL from ZL3TY and is celebrating his personal achievement of working into a couple of ZL call areas.
Just today I note that there is a new distance record for the 10Ghz band between VK3HP/p at Mt Macedon and VK7MO/p at Pt Lincoln S.A. a distance of 843 Km. There is a small group of Ballarat amateurs constructing 10Ghz gear and they will be looking at these achievements with envy. Records of course are meant to be broken so shortly it may be a local on one end of that prized distance contact. Well done to them.

Mark up your diary now for the clubs next field day activity on the 15 April. Again we are encouraging members to get out into the field and operate for the day and work as many portable members as possible. You need to be in the field to win the prize and get into the fun and fellowship that is what field days are about.

The committee has decided to commence the Jan meeting at 1900hrs this Friday as that will give us a fair amount of daylight hours to conduct some outside activities before holding a short formal meeting. There will be no guest speaker this month so allowing plenty of time for chatting afterwards.

Our next activity will be the construction group on Monday 13th Feb.

73 Craig.
VK3CMC

| | |
|---|---|
| Attorney: | What was the first thing your husband said to you that morning? |
| Witness: | He said, "Where am I Cathy?" |
| Attorney: | And why did that upset you? |
| Witness: | My name is Susan! |

## QST Report with Craig, VK3CMC

**Content review of current QST in library**

**QST Review 2012-1 Jan.**


What to find in this months edition.

QST Review for December 2011

P4/5 Index.
P9 Editorial.Discusses the Solar cycle #24.
P30 A Laptop QRP Station.
P34 Inverted V Wire yagi with switchable pattern rotation for 14Mhz.
P38 A 2W Logic chip Transmitter.
P41 Dual 2M/70cm Slim Jim antenna uses plumbing copper.
P45 Product Review. Flex Radios SDR HF+6M QRP Transceiver.
P51 The Doctor is in.
P53 Handson Radio. Ex 107. PCB Layout Part 1.
P55 Short Takes. The Argent Data Systems SSTVCAM.
P56 Hints & Kinks. Simple Tap guide plate. Securing mic connectors, Piggy back RF ammeter and a Plumbing ground bracket.
P58 Storage of ARRL Kistory archives.
P61 An HF Beam looks at different types and designs.
P63 Contesting in the slow lane. [Sunday drivers]
P64 Review. New ARRL Antenna Handbook
P65 Happenings: US now has 700,000 amateurs. See the breakdown by classes.
P65 European proposal for MF allocation. Band in 472-480kHz section.
P66 High Solar flux numbers good for higher HF bands
P67 Heathkit to return to Kit business after several decades absence.
P70 Eclectic Technology looks at Reverse Beaons.
www.reversebeacon.net
http://pskreporter.info
http://jt65.w6cqz.org/receptionship.php
P71 Has results of Field days and other activities.
P94 World above 50Mhz. The Sun Spots are back. F2 on 6Metres.
P98 Vintage Radio. W9EVT's museum shack with over 1000 radios on display And all operating. See the eight foot high shelves on three walls, and you can stay at his B&B to boot. Situated on Washington Is in Lake Michigan.
P101 75, 50 and 25 years ago in QST.
P156 Some interstings answers to QST questions.
P165 INDEX to QST Advertisers this month.

QST for December 2011

Craig, vk3cmc

## National VHF/UHF Summer Field Day

On the weekend of January 14/15 the BARG callsign VK3BML was used to take part in the 8 hour section which for us was on Saturday 0100-0900 UTC. Using the portable setup of Ian VK3AXH near the trig point on the top of Green Hill support was given by club president Craig VK3CMC and Roger VK3ADE who visited for a couple of hours.

There was plenty of activity with stations in VK3, VK2 and VK5 active from both the field and home stations. Although the wind was quite fresh when the station was setup operation of the equipment inside the covered in trailer proved to be quite comfortable.

During the 8 hour period we had contacts on 6m, 2m, 70cm, 23cm and 2.4GHz contacting stations as far away as Mount Gambier in the West to Mt Tassie in the eastern part of VK3. He heard VK2KRR from Wagga and VK2EMA but had not contact.

Power for the station was achieved with 2 x 12 volt batteries float charged from a mains operated 13.8 DC supply. 240 VAC was from a 850 watt petrol generator.

One of the difficulties when there are multiple operators in the same small area was coordinating contacts on the various bands. This is something we need to refine for future events.

Whilst we don't expect to be a winner in the section undertaken it was certainly a lot of fun. So why not brush the cobwebs out of you portable equipment and plan for the next BARG field day to be held in a few months time or get ready for one of the many national field days that occur throughout the year.

Antenna setup with president Craig VK3CMC near his truck.

73, Ian – VK3AXH

# The 2011 BARG Christmas Breakup

This year 24 members turned up for the breakup. Everybody seemed to enjoy themselves.

And the night was enjoyed by all. Thanks go to our cook, Warren, VK3FWJW

Also thanks to Bet and Theresa for setting up tables and decorations. Some photo's courtesy Harry (vk3kgl)

















# BARG Equipment Loan Book.

**Please fill out book as you borrow items.**

**Maximum duration for loan is four weeks (meeting to meeting) and must be signed in and out again if you wish to re-borrow item for a further period.**

**Please report any malfunction or damage to the Secretary, preferably in writing or e-mail thank you.**

**This book is not for recording Library borrowings!**

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

**Antenna Analyser HF/VHF MFJ.**
**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.**

# A FEW SOLAR FACTS

From Rodney VK3UG

Quite a few members have chosen to install Photovoltaic Solar electricity generating systems on their homes or free standing. Most are grid connected so depending on your arrangements with the electricity supplier you may be getting up to 66 cents per kilowatt (this varies with suppliers and states) for every kilowatt that you actually export to the grid. You will be charged for the power that you consume from the grid at whatever the going rate is that you pay. When your solar cells are producing power but not as much as you are currently using, the amount of solar energy being produced will come off your bill at the normal rate that you pay for your power.
Examples assuming that power from the grid costs 20 cents kWh and you are paid for excess power into the grid at 60 cents per kWh:

You are using 10kW per hour, your solar is producing 3kW then your meter will show that you have used 7kW. With no solar energy fitted you would pay $2.00 (10x20c=$2.00), but with the solar array producing power you pay $1.40 (7x20c=$1.40).

You are using 2kW per hour and your solar is producing 3kW, your meter (chargeable section) will show no increase, whilst the input to the grid will be 1 kW. You will pay nothing but the 1 kW will be credited to your account at 60 cents. If you have not using power at the time you will be credited 3x60c=$1.80.
These figures assume that the usage of power is continuous over a period of an hour as is the amount of electricity generated by the solar cells and fed into the grid.

A 3 kW array of solar panels will generate around 15 kW in a day in summer. If you didn't use any power during the day you would get a credit for the whole day of $9.00. You can use quite a bit of power at night and you are likely to have an account in credit over a billing period. I trust that these few figures are of help for current users and possible future users of solar panels.

In this area, members solar panel arrays vary in size from 750 watts to 3 kW of rated power. The inverters used seem to be mostly Latronics, SMA Sunny Boy and Fronius, with a smattering of Chinese and American units. Some inverters meter just the output of the system in kW whilst others record the output total, temperatures, mains voltages peak and through values, peak watts output, etc.

One interesting thing I noted, I have a 1400 watt array and my inverter has shown readings as high as 2097 watt. Whilst I believe the inverter is reading between 10 and 12% high this would bring this peak reading down to around 1900 watts, which is much higher than 1400 watts. Solar cells are rated to give their rated output at around 25 degrees with the sun shine directly at right angles to the panels and it drops off as the angle deviates from this angle and as they get hotter. As the temperature goes below 25 degrees the panels become more efficient and produce more power. Also these peak outputs occur on cool sunny days with clouds. When the sun breaks out from behind white fleecy clouds on these cool days the output jumps dramatically for a while. In this instance the white fluffy clouds diffract some of the sunlight onto the solar arrays as well as getting the direct sunshine.

These are just a few observations I've made. Others may care to contribute to the forum too.

Rodney Champness VK3UG

# BARG HF FIELD DAY SUNDAY 15th. APRIL 2012.

Building on last year's event another fun day for BARG members is planned for Sunday 15th April. We hope that you will take the opportunity to operate portable at the place of your choice for as long as you want and even invite friends to join in. There are a few rules and to top it off there is a nice prize offered to the winning station which will be presented at the April BARG meeting. The winning station will have to have participated as a "field station" and not deriving its power from the mains! Field stations can score from any other amateur stations.
If operators can provide photos of their field stations for inclusion in the BARG News this will certainly add to the spirit of the day.

.Event. BARG HF Field Day.
Band 40m. 7050khz to 7100khz.
Mode. Voice Modes.
Time. 10.30am – 3.30pm.

-Members may operate as long as they wish within the above time slot and may change portable QTH as required but must be shown on Log sheet.
-Members exchange numbers as per standard contest procedure, eg 59001 as the first contact including call sign worked, time and frequency.
-Score 5 points per contact with each club member.
-Score 1 point per VK3 non club member.
-Score 2 points per VK1/2/5/7 non club member.
-Score 3 points per VK4/6 non club member.
-Score 1 point per DX contact.
-Score 6 points for contacting the club station VK3BML.
-For scoring purposes only one contact per hour per station is permitted.
-Record time of contact but no grid square information is required.
-Transceiver power to be shown along with antenna details.

-Log sheets are to be forwarded to Harry, VK3KGL, 29 Cromwell Street Sebastopol, 3356, and showing your claimed score.
Your log sheets can be submitted electronically, posted, or hand delivered.
All logs must be submitted by 5pm on Wednesday 25th of April 2012.
The decision of the adjudicator will be final and no correspondence will be entered into.

There will be a prize for the winning club station and will be presented at the April BARG meeting. The committee is considering an annual Trophy for this event so your input would be most welcome.

Log Sheets are available on the BARG WebSite.