

# Craig's Edition

# B.A.R.G. News



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

**VOLUME 29 ISSUE 5 May 2006**



President: David Tilson VK3UR  
Secretary: John Kennedy VK3AIG  
Treasurer: Gordon Cornell VK3FGC

**NEXT MEETING - FRIDAY 26, 2006**  
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: [vk3aig@barg.org.au](mailto:vk3aig@barg.org.au)



### BARG Inc. Life members

Kevin Hughes	VK3WN
Ian McDonald	VK3AXH
Charlie Stewart	VK3DCS
Bob Terrill	VK3BNC
Jim Wright	VK3CFB
Norm D'Angri	VK3LBA
Phil Seddon	
Stan Widgery	dec.

## CLUB INFORMATION

### REPEATERS and BEACON

VK3RBA	(Voice)	146.750 Mhz	Mt Buninyong
VK3RWA	(Voice)	147.100 Mhz	Mt Ben Nevis
VK3RPC	(Packet)	144.750 Mhz	Mt Warrenheip
VK3RBU	(Voice)	438.475 Mhz	Mt Hollowback
VK3RMB	(Beacon)	435.535 Mhz	Mt Buninyong

**IRLP** Node 6310 using VK3RRWA

**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 [vk3kgl@barg.org.au](mailto:vk3kgl@barg.org.au)

### Broadcast Times and Dates on VK3RWA Repeater

Every Sunday at 10.30 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

## MOWING ROSTER



It is that time a gain when we publish the mowing roster for the Club rooms. The mower and fuel are at the rooms, but when the fuel is getting low please contact the committee to get a refill. Any new “mowers” will be fitted in.

**There is NO roster.....**

**President's Report:**

This is your radio club and it is important that your thoughts are heard. One of the best ways of achieving this is by nominating and being elected to the Committee. The 2006 Annual General Meeting will be held in August so now is the time you should consider who you want on the Committee. It is not an onerous commitment however you will have a means of influencing the direction of the club. There was considerable discussion at the May Committee Meeting about a range of different topics, some of which have the potential to impact on the club and its activities for considerable time. It was good to see healthy debate on these topics and forward thinking demonstrated by the Committee members present.

We have another busy couple of weeks at BARG including the George Fowler Memorial Auction and a number of guest speakers who will be present at our May General Meeting. The George Fowler Memorial Auction is a major fund raiser for the club and has the potential to make or break prospective club activities.

Nine of our club members were able to take advantage of Doug, **VK3VBA's**, suggestion of hiring a mini bus to transport members down to the Moorabbin Hamfest and safely back again. Thanks for organising this initiative Doug.

Yours in amateur radio,

David Tilson, **VK3UR**

**George Fowler Memorial Auction:**

The annual George Fowler Memorial Auction will take place on Sunday, 28 May, at the club rooms. This activity is open to both members and visitors and we encourage everyone to come along. Lunch, comprising soup and rolls, will be served at 12:00 noon and the auction will commence at 1:00pm ably led by our chief auctioneer Bob, **VK3BNC**. A 10% donation on all items sold will be retained by the club to assist with its fund raising activities.

**Foundation Licence Training:**

Craig, **VK3CMC**, advises that he has only received interest so far from 1 person wishing to undertake a Foundation Licence Training Course. If you know of anyone who would be interested in undertaking training please notify Craig so that he can commence planning for the next course.

**Radio Modernisation Project:**

The Committee agreed to move forward with the club's radio modernisation project aimed at providing modern radio facilities in the club's radio station. A staged plan was presented to the Committee aimed at initially replacing the radio equipment, through to enhancing the club's antenna farm and providing remote access to the club's radio facilities for members via the internet. This is a large project designed to provide modern facilities from 160m to 70cm, however the Committee agreed that the initial phases should only cover

160m to 6m. The project included a costed funding model, which the Committee is now seeking outside financial support for. David, **VK3UR**, will provide an overview of the project at the May General Meeting.

#### **Financial Grants:**

The Committee has agreed to submit proposals to the Ballarat City Council and the Wireless Institute of Australia seeking financial assistance to fund various projects. As the timeframe for applications has not closed yet, stay tuned for further information as to the type of projects we are seeking assistance for.

#### **BARG Mugs:**

Following enquiries from a number of members the Committee reconsidered a previous motion which did not permit BARG mugs to be sold to members. Previously the BARG mugs were restricted to being gifts for guest speakers. It was agreed that BARG mugs would be made available to club members in a colour different to those being presented to guest speakers. Doug, **VK3VBA**, is currently obtaining colour / pricing details. We will be seeking an indication from members at the May General Meeting as to who might be interested in purchasing a BARG mug, before an order is placed.

#### **Ballarat APRS Digipeater (VK3RBU-1):**

The Ballarat APRS digipeater, **VK3RBU-1**, is currently off air due to site vandalism of the electricity supply power board. A new power board is currently being constructed and we hope to return the repeater to normal service in the near future.

#### **May Guest Speakers:**

Jack **VK3WWW**, Peter **VK3QI**, Keith **VK3FT** and Max **VK3WT** will be guest speakers at our next General Meeting to be held on Friday, 26th May. These 4 gentlemen have been busy activating various IOTA (Island On The Air) stations over the last few years and creating dogpiles where-ever they go. The expedition they will present is **VI5PN** St. Peter Island which was last activated during Easter 2005, which follows on from other expeditions including **VI3JPI** Lady Julia Percy Island, **VI5WCP** Waldegrave Island and **VI5BR** Baudin Rocks. The lads have agreed to bring along some of their portable equipment as part of the evening's show and tell.

#### **Annual General Meeting:**

The 2006 Annual General Meeting will be held on Friday, 28 August, when all positions will be declared vacant. Our current President David, **VK3UR**, has stated, that for personal reasons, he will not be available to stand for Committee this year.

#### **Dining Night:**

The next Dining Night will be held at 6:30pm on 16 June. Venue details to be advised.

## LIBRARIANS LAMENT.

Well another month has gone by and closing onto middle of the year soon. I hope members like the QST reviews that we are doing as soon as they arrive in the library.

Obviously we do not all take an interest in the same types of activities so the reviews may be a bit one sided at times and you are encouraged to have a look for your self some and maybe borrow a magazine as well. Although the committee has suggested that a month is reasonable time to borrow a magazine for so please endeavour to get it back before the next months meeting. You will note that the folder boxes for magazines each year have some marker papers there showing a missing edition. If you have an old copy of any of these magazines marked as missing and not making a collection your self perhaps you may care to donate it to the club to fill the gaps. We are trying to have a complete set of QST and Amateur Radio to which we subscribe, for a ten year maximum period. We do however have copies dating back much further to the late 40's 50's etc and we have sorted them as appropriate. Other magazines for perusal are the old ARA which we have a full set and also Radio Communication [which hasn't been sorted out yet] and various R&Hobbies later known as RTV&Hobbies and still later as Electronics Australia. There is still a large pile of them on the floor which I have not been back to sort just yet. We do have a limited set of some back Silicon Chip magazines that were donated but somehow there are a few missing now out of the complete sets. If you can help again there with missing eds that would be great.

On the book borrowing front no one seems to want to borrow a book. Does that mean that we know all there is to know about the hobby?

Maybe we could should start a competition with a prize to the club member who finds a special passage in a book. Off course there would have to be a few books borrowed wouldn't there? Maybe I should pick a paragraph from any book then publish the clues in the next newsletter. The winner would be the first one to borrow the book and declare it before the following months meeting. Maybe the President would like to donate a nice radio as the prize??

**Well good reading and see you at the next meeting**  
**73 Craig**



**Congratulations to VK3KQQ Neil and XYL Gwen**

## **QST Review Feb 2006.** **By Craig VK3CMC**

Well the February edition of QST is again a packed edition. Just scanning the adverts causes the juices to flow seeing the range of gear that is around in the US of A. I always like to look at the **Doctors In** section first as many times there are those questions that you wanted to ask but didn't, and the answers are so easy to understand. This month it explains how to match two Yagis into a stacking array. So that the SWR is still usable at the TxRx Very simple really.

Another question concerns the old Windom off centre dipole popular from the 1920's before coaxial cable was popular. The debate still continues with some arguing that it is really a top loaded vertical as much as it's a horizontal antenna. Doesn't matter if it really works for you. An unbalanced ATU is required though.

Also do you want to connect multiple receivers to one antenna? Then chase up QST May 2004 pp31-38 to find out how. The Dr then discusses the matching of a linear input to a modern transceiver output and how to adjust the drive matching.

**HINTS AND KINKS** pp69 Has an idea for a small antenna base that can be used around the shack when experimenting with small beams etc or on field days when you need a base for that mast and the ground is rock hard solid. This idea will also allow you to mount a sun umbrella on the patio when required. The idea is to pour cement into a five gallon bucket and mount a 1.5M aluminium tube in the centre and to assist ease of carrying mount a "Stanley" chest handle onto the top with lengths of threaded rod. Very nifty idea. Telescopic sections of mast can then be added to the base unit to a suitable height. Guy wires can be utilised with a rotating ring if you require it to rotate.

**HANDS ON RADIO.** Experiment #37 Decoding for Display. Want to learn how the Seven segment display works? How does the BCD make the display work. Read it on pp67-68 Next month the author will build a simple linear regulator [Exp 8] and add some extras to make a charger for gel-cell batteries.

**RcoIP Remote Control over the Internet** Ever thought about how to use the home station from some remote location, say while you are away on holidays etc.? read this article and find out how to do it. Some discussions followed this very activity after the January meeting with a couple of members. Pp62-64

**Transmit/Receive Switching.** Read about PTT and CW Break In operation. Then see how the VOX works on the modern radio. What advantage/disadvantage is VOX to the operator. Find out about the ANTI VOX GAIN control. Pp65-66

Interested in mounting a small microwave dish on side of tower and being able to rotate it. Read article on pp42-45. It may give some new ideas.

What do you know about **Automatic Position Reporting System APRS**? See the article on pp 39-41. You may get enthused to try it out in the car.

Construction article for a **50Mhz linear using a 8877**. Its been designed to be light and small for field day operation.

**HyGain DX-88 Vertical.** Looks at some adjustments that can be done to improve performance on lower bands. Pp36

**CW Telemetry for planes and Rockets.** Pp28

## QST Review Mar 2006

By Craig VK3CMC

**P28** Combined wire yagi and two flat top with twin wire feeders in restricted space. One mans effort.

**P31** ANDERSON POWER POLE connectors for high current DC connection. Can be used up to 250Amps. Used by US and UK emergency service amateur groups. \P34 Build your own high performance transceiver. Find out how one man decided to do it himself. Not a technical article but motivational. Discusses use of UGLY boards and sources of other readings. Bet that Drew Diamond will read this one. !

**P44** Amateur radio at the boy scouts National Jamboree in Virginia USA.

**P46** "I got my ticket in Iraq" Amateur radio exists in the war zone. Five out of six candidates passed there test. The "Workbench" Doctor is in.

- IRC uses – Do you do Dxing
- Recharging batts for handhelds.
- Max permissible exposure limits for licencees, how to calculate it-  
Some tips on soldering

**P52** Hands on Radio - Exp #38 Battery charger Part 1. See Apr QST for the conclusion.

**P54** modify cheap DMM for a LP SWR meter.

**P61** Review FT DX 9000 Contest transceiver

Review Alnico DR635T Dual band FM transceiver 2/70]

**P69** This months reading in Technical Correspondence has an Auto Digital Interface, also Use an SWR Analyser to measure coaxial cable stubs. "Club members with their own analyser can now have a play"

**P82 AUSTRALIA AUSTRALIA AUSTRALIA** We have been read by the yanks and they now know of our new licence review and the introduction of Foundation licences. Has a photo of Michael Owen VK3KI and Amanda Gray VK4FRST the very first to gain a foundation licence. Bit of old news now to us as they have passed something like the 250<sup>th</sup> licence by now.

**P86 Microwaves.** -Look at lossy feed cables  
-Periscope or Flyswatt feed systems  
- Method has been around for some time in commercial installations but why not for amateurs.

**P129** Check out the future of Amateur Radio ??

**P24** Correspondence - Lets Metricate !! An American proposal to go metric like the rest of the world?

73 Craig

### Just for laughs...

A retired gentleman went to Centrelink office to apply for the age pension. The woman behind the counter asked him for his driver's license to verify his age. He looked in his pocket and realized he had forgot his wallet. He told the woman that he was very sorry but he seemed to have left his wallet at home. "I will have to go home and come back later", he said. The woman says, "Unbutton your shirt." So he opens his shirt revealing curly silver chest hair. She then says, "That silver hair on your chest is proof enough for me," and she processed his age pension application. When he returned home, the man excitedly tells his wife about his experience at the Centrelink office. His wife says, "You should have dropped your pants. You might have gotten a Disability Pension too!"

**QST Review May 06**  
**By Craig VK3CMC**

Well another month since the last review. This month has 169 pages of technical articles, competition details, reviews and of course all those interesting advertisements.

We start off with an article on Amateur TV fitted into a local Police helicopter that broadcasts to the town and area every time its flying. All instigated by an amateur.

Are you interested in fox hunts and tracking. Here is a simple [single chip LM555C] for phase switching any signal from a two element tracking beam to obtain a “sense” bearing for feeding into a hand held or other device. Used here on a UHF frequency it can be connected to any frequency in the VHF or UHF band and uses the principal of Time Difference of Arrival tracking. [TDOA] Is a companion unit for the miniature UHF Fox transmitter described in QST Mar 2005. Check our library out for that article also. See p32

Into CW and have a Bug? Read about the Auto-Bug keyed with memory on p36.

Revisit the Quad Loop antenna. For those interested it works as a three element beam on 3600Khz. P39  
An article on power line noise . p41

Interface audio into your transceiver using this simple interface box. Simple. P4

Now The Doctor is in page answers questions sent in by readers. One that is interesting reading concerns the change in the EU countries to ban Lead content in solder. Reader wants to know if they should stock pile or is the alternative to Sn/Pb solder any good. ARRL did some tests. Find out about higher temps and effects on tips. Other questions cover the long wire antenna on multiple frequencies, and coaxial cable losses using some popular brand examples.

Article on using LCD as metering devices instead of meters [PMMC devices] p55

Have you wondered what and how a VOX works or should be correctly set up? See Hands on Radio p59  
Experiment #40

Hints & Kinks p62 always has some gems of ideas. This month learn how to make your own weatherproof capacitor for outside use. Its as simple as rolling out two sheets of aluminium and suitable dielectric material. Uses in antenna beams and matching networks. Helpful to explain how a capacitor works also.

The feedback on amateur responses to Hurricane Katrina receives close scrutiny as high up as in the countries Congress. Lessons learnt show that amateurs can be more “first responders” in any disaster and much more flexible. Our training in competitions and in club nets and abilities to go portable or mobile makes the service a much higher profile now. The FCC is also aware of such service and the ongoing problem with BPL in the US has now given the ARS a better position to bargain with. See article starting p73-75 Also while looking at emergency responses see article on ARES activity called “Twisted rail” on p78-80. WICEN operators or “want to be’s” should read this one.

Portable Microwave section at p86. Read how one man goes portable.

Reviews.

1. MFJ 4116 Bias Tee Power injector for use at HF. Use it to remote switch multiple antennas onto one coax cable to the shack. P54
2. ICOM IC-7000 HF-UHF transceiver. P64
3. Heil dual sided headset. P72
4. Not so much a review but assembling an old radio station with DRAKE 2-NT Tx and Drake 2B Rx and the 2-BQ Multiplier set. C1961 vintage. May be some of this gear still around.
5. Satellite software Predictions. SCRAP pgm. See [www.amsat.org](http://www.amsat.org) p88



## Propagation Report for May 2006

Thanks to Steve VK3SE for his continued support with this HF segment. It seems he has been busy with some good openings throughout the world.

40 Mx

YJ0ADX, plenty of VK's/ZL's

20 Mx

In view of the vast range of contacts made I will list the country names only. This clearly shows that contacts are available if a bit of time is taken to tune across the band.

Yugoslavia, Russia, Slovak Republic, Slovenia, Italy, Azerbaijan, VK0 – Davis Base Antarctica, Bulgaria, Greek, Balearic Isles, Kiribati Isles, Spain, Switzerland, France, Hungary and Indonesia.

Steve reports there is some activity from down in the Arctic area's with VK0AG and VK0JLX both active. In addition there is a K6E special event station in the USA celebrating 150 years

17Mx

VU4AN/VU3CHE from the Andaman and Nicobar Isles, YX0LIX Aves Isle.

Steve also reports hearing Doug VK3VBA on 15 meters in contact with VK0JLX. Another local Michael VK3KVV has been heard working plenty of stations on 20 meters

### VHF/UHF

With the colder weather setting in there has been a noticeable downturn in activity on these bands. The usual contacts and propagation tests on 2 mx continues each morning between Ballarat and VK1/2/3/5 and 7 most days. Kevin VK3WN is active most mornings checking out propagation to VK5ZK in Goolwa (Nr Victor Harbour) and Bill VK3LY at Nhill and sometimes Doug VK3KAY from Dimboola. Bob VK3BNC is continuing his charge to improve his receiving capabilities to receive noise from Space and is currently preparing to install a larger dish to pick up those illusive signal changes.

Why not blow the cobwebs out of you 2m SSB rig and join the local group on a Wednesday evening at around 8:40pm on 144.160. At this time you are likely to hear Vk3CMC, VK3IDL, VK3AIG, VK3KRC Rod at Cobden, Brian VK3KQB and Ian VK3AXH. If you feel like spending half an hour or so catching up with the local gossip please join in.

### Project Group

Bob VK3BNC brought along some completed switch mode power supplies for the project group to have a look at. In addition some of the 23cm project pieces were also on display and for discussion. Les VK3JFM brought along his project to do some performance checks whilst Ian VK3IDL has done some calculations for the Light Modulation transmitter and receiver boxes.

Overall a very interesting time was had by all that attended. Why not bring your project along and show the rest of us what you have been doing in your shack.

Till next time, 73 Ian VK3AXH

**Ballarat Amateur Radio Group**  
**Minutes of the 28<sup>th</sup> April 2006 General Meeting**

President David, VK3UR, opened the meeting at 1935.

Apologies: VK3AIG, VK3KQQ, VK3KQB, VK3TCV, VK3HRZ, VK3BVI, VK3DET, VK3BMY, VK3CAZ

Visitors: None

Minutes of the Previous Meeting: "Moved that the minutes of the March General Meeting as circulated in the newsletter be accepted." Proposed VK3BEB, Seconded VK3BNC, Carried.

Business Arising: IRLP / Packet interconnection. John VK3TJW reported that work is slowly progressing on this project.

Correspondence: "Moved that the correspondence as tabled be accepted." Proposed VK3ADX, Seconded VK3FGC, Carried.

Treasurers Report: Gordon VK3FGC tabled the current financial report. "Moved that the Financial Report as tabled be accepted and bills passed for payment." Proposed VK3FGC, Seconded VK3ASH, Carried.

General Business:

David, VK3UR, reported that there was no Committee Meeting in April as a quorum could not be raised due to illnesses and members away.

Bob, VK3BNC, reported that Tanya, daughter of Frank VK3CFF (SK), had success selling quite a lot of equipment at the Castlemaine Hamfest and that she had donated the remaining equipment to BARG for the George Fowler Memorial Auction. She sought some form of acknowledgement for her father which would be discussed at the Committee Meeting.

David, VK3UR, reported that the proposal for the club radio modernisation project was provided to the Committee in March and is to be discussed at the next Committee Meeting.

David, VK3UR, reported that the April Dining Night had been a success at the Beaufort Hotel, but it was a shame that more members could not attend. David thanked Ian, VK3CIS, and Kathy, VK3HRZ, for their efforts in coordinating the evening. The next Dining Night is to be held at Zagamies Bistro in Main Rd, Ballarat, on 19<sup>th</sup> May at 6:30pm. David, VK3UR, has booked for 20 people.

Doug, VK3VBA, discussed the proposal to hire a mini bus to transport interested club members to the Moorabbin Hamfest on 13<sup>th</sup> May. There was sufficient interest and Doug was approved to coordinate the booking and arrangements. There was discussion amongst the members as to whether any vacant seats could be made available to non members. David, VK3UR, was unsure if our insurance would cover this instance. It was agreed that the Committee would investigate for future activities.

David, VK3UR, advised that the George Fowler Memorial Auction would be held on Sunday, 28<sup>th</sup> May, and is open to members and visitors. Lunch would commence with soup at 12:00 noon and the auction would start at 1:00pm led by our chief auctioneer Bob, VK3BNC.

David, VK3UR, provided members with a brief update on the light modulation project that Chris Long presented on at our March General Meeting including a new VK3 record which had just been set from Mt Donna Buang to Gippsland (over 100km).

David, VK3UR, read a proposal from Greg, VK3VT, that was to be tabled at the Annual General Meeting of Amateur Radio Victoria (ARV) that discussed transferring some of ARV's financial assets to the Wireless Institute of Australia. There was considerable discussion amongst the BARG members at the meeting. They were advised that it is not BARG's position to comment on the proposals but members of ARV should be aware and vote accordingly.

Bill, VK3PAL, reported that the club's tribander appeared to have a droop. To be investigated in daylight hours.

Merv, VK3ADX, raised the possibility of accessing the club's radio station outside of club meeting times. David, VK3UR, advised that keys can be borrowed from any of the Committee for this activity and that the radio modernisation project may also offer some opportunities in this area.

Gordon, VK3FGC, provide a WICEN update about the recent event in the Ballarat area.

Harry, VK3KGL, reported that he is always looking for input for the newsletter.

Doug, VK3VBA, advised that the carpets had been cleaned and asked people to wash up their cups at the end of the meeting.

Craig, VK3CMC, advised that he has been doing some more work in the library.

Bob, VK3BNC, reported that the Construction Group is active. Current projects include modification of computer power supplies for use as 12VDC power supplies and construction of the 23cm kits.

The meeting closed at 20:45 and David, VK3UR, invited members to have something to drink and chat.