



*Ballarat Amateur Radio Group
Inc. #69537*

*September
Monthly Newsletter*

Box 1261, Mail Centre, Ballarat, Victoria, 3354, Australia

Next Meeting

26th September 2014 @ 19:30 hours
(7.30pm)



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Monthly Calender

- Construction Night:** 1st September 2014 @ 19:30 hours
- Committee Meeting:** 17th September 2014 @ 19:30 hours
- General Meeting:** 26th September 2014 @ 19:30 hours
- VHF Net:** Every Tuesday night at 20:00 hours
- HF Net:** Every Thursday night at 20:00 hours

Special Events

- Hamvention:** Sunday 19th October 2014 @ 10:00 hours
- Special Guest:** Friday 26th September 2014 @19.30 hours

Important News

Presidents Corner

Hello to all members,

Just a quick note to let you know that this month we have a special guest speaker for our meeting on the 26th September at 7:30 pm.

Our Guest speaker for this month will be Peter Cossins VK3BFG who will be attending on the night to talk about ATV.

Everyone is welcome to attend the evening for a chat and nice supper afterwards.

Looking forward to seeing you all there.

The President,
Ballarat Amateur Radio Group.
Darren Lancaster VK3FAOE

Club Key Audit

Would any member who has a key to the club rooms please bring it to this month's meeting so I can check it against the key register. Over the years some keys have been lost and I would like to officially "write off" missing keys.

Gordon VK3FGC
Security Officer

Library Audit

Could all members who have books/magazines from the library, please return them to the library, place them in the returns box and sign them back in, so that everything can be catalogued and numbered.

Thanks Craig VK3KG and Julianne

General News

Key Security System

The new key security system is in place at the club rooms. Any member that would like to access the rooms, please contact a committee member for the code.

Doug VK3VBA

Damascus College

This is a reminder to those members that our next sessions at Damascus College is Wednesday 29th and Thursday 30th of October.

We would welcome any other members who would like the experience with the students to join us. I would like names at this months meeting.

Gordon VK3FGC

Scuttlebutt Report

On the club HF net last Thursday night [11 Sept] was heard a new call sign logging in. Appears that Nic VK3COW has now acquired another call sign for his activities down south. Nic logged in as VK7BEE from his new apiary. Running an old TS43 to a long wire running North/south he intends to have a better antenna up soon although his sigs back here were still good at 5/7 to 8. Would be nice to hear a few more club members up on the net as we are being outnumbered by visitors some times. Heard this time were, VK's 3ALM Locky, 3BVI Clem, 1CJ John, 7BEE Nic, 3CAZ Reg, 3KG Craig, 3VBI Ron, 3FCOE Andy, 7ALH Rosco, 3LTA Trevor, 3FDRE Doug & 3HGN Alan with a late check in from 3CB Cliff.

End of report.

Craig VK3KG

Standard and Advance licences

Looking for expressions of interests, for Standard and Advance licence upgrades. If you are interested please let me know.

Craig VK3KG.

More News

Some statistics from the Federal President of the Wireless Institute of Australia's recent annual report.

At the end of financial year 2013 there were 14,190 licenced amateurs in Australia. All classes. The same time in 2012 there were only 14,376 showing a drop in 186 members.

This number is made mainly from Silent Keys and those who decide to move on in the hobby.

In 2013 there were 625 new licences issued made up of 414 Foundation, 118 Standard and 93 Advanced.

Membership of the WIA was 4,538 at end of 2013 being a 32% of the national total..

As the WIA speaks on behalf of ALL radio amateurs when dealing with the ACMA and other government departments it really behoves us all to support the WIA by being members. Yes it seems that subscriptions are high but we must look at the costs of legal representation to the ACMA and also to the world Telecommunication bodies as we try and protect what we already have, and try to gain extra privileges and conditions.

Currently our frequencies are under attack and we are likely to loose two either in part or total. The ACMA has been requested by the government to review the 9cm band [3400 -3542Mhz] for use

exclusively by the NBN network in areas where its not feasible to use cable. There are many Australian amateurs that are using this band for terrestrial communications and also for EME contacts. While you may have no interest today or ever at all in this band you should show concern and support those who do use it. The WIA is currently defending our access to this band. It has also been reported that the 23cm band [1296 to 1300 MHz] is also about to be taken away from us. We need strong support when putting our case to the authorities and the WIA is the only body of amateurs who can do so. Please support the WIA now.

The existing Amateur LCD's are due to reach their sunset date in 2015 as they are ten years old. We have a short time to put suggestions up to the ACMA to evolve the LCDs some what and the WIA has already made submissions in a number of areas that will affect all grades if accepted. These areas are power levels for all grades and a number of assessments to modes that Foundations are allowed to use now. Also raising the difference in our conditions compared to other countries. Looking on the bright side a bit we are getting closer to gain some frequencies in the 60M band [around 5.3Mhz] as the secondary service user though

73 Craig VK3KG

What's on your workbench

Does anybody use the VK-VHF logger? You have to sign up which is simple and once you have done so you can access what others are doing and on what bands and also provide your own input. There is also a Forum that enables you to ask questions and get sensible answers to any problem you maybe experiencing.

One of the segments is "What's on your workbench" It gives a picture of what others are doing which can be very interesting. I'd be happy to provide details to any interested member or perhaps show the website at a club meeting or construction night. Have a look at :- <http://www.vklogger.com/>

73, Ian - VK3AXH

Microwave Corner

Last month an update was given about the progress some members were making with their 3.4G band transverters. I can report that John VK3AIG's unit is working albeit at low power. Craig VK3KG's unit has been aligned and tested and ready for testing and hopefully in the near future David VK3KQT who recently has taken over from Nic VK3COW (due to other commitments) will get started shortly.

As a result of several units being ready to test it was decided that on Saturday 13th September short range testing would be done in the Ballarat area. With Ian VK3AXH located at Green Hill, Craig VK3KG in the Ross Creek area and another local amateur Ian VK3IDL near Black Hill and using 2m FM for liaison we scheduled a start at 10:30am

Ian VK3IDL initially called on 3400.1MHz running only 25mW using a pcb log period antenna and Ian VK3AXH copied him at S9 over a distance of 8km and soon reciprocated with a S9 report as well. Craig soon let us know he was ready and using only a Campbell's Soup Can with a probe inside as his antenna was easily copied by both Ian VK3IDL and Ian VK3AXH. It was a wonderful event for the 3 of us and a great achievement for the microwave enthusiasts in our area. Although both Ian's attempted a qso on 5.7GHz we had no luck so more investigation is required to determine why this occurred as all appeared ok on the bench.

The picture below shows the Green Hill setup with the 3.4G offset dish and the 5.7G transverter and feed horn pointed in the direction of Black Hill. Early days with more improvements to be made.

From Ian VK3AXH

Pictures from Microwave Corner



VK3AXH set up for 3.4G and 5.7G



VK3KG setup for test on 3.4G

9cm Contacts

On Sat 13th Sept I finally managed to get some RF to air on 3.3Ghz and worked my first two stations on that band. Setting out for a 1030AM set up and using a 2M FM channel for liaison I experienced a serious hiccup when the handheld decided to cease transmitting after it had been flashed with a reverse 12V lead. I could copy the other stations but not tell them I was there. The solution was solved by using the FT817ND on 2M initially to let them know then unplug and change to 70cm for the IF unit. Once there I only had to come up on UHF [9cm] and 3AXH could acknowledge me on 2M.

Ian VK3AXH was on Green Hill [9.5Km away] just on Ballarat side of Mt Buninyong and Ian VK3IDL was on Black hill to the North East of Ballarat. [13.5Km away]

I set up at the Napoleons telephone exchange on corner of Tom Jones rd and Laceys rd. At an altitude of 401M I had a direct open view to Green hill which was 9.7Km away from my position. Ian VK3IDL was somewhere on Black Hill near the WIN TV site and although I could see the horizon for a good 130 degrees I had difficulty in initially aligning my antenna to find him. VK3AXH was so strong to me due to his higher power and location was able to be heard even with my antenna pointed away from him towards IDL.. From the map I worked out that I was 9.7Km from Green Hill and 13.5Km from Ian on Black Hill.

To check map data I used Pythagoras to calculate the Hypotenuse side distance between me and Black hill and as a grose error check I confirmed the distance at 13.5Km. Now the signal reports for vk3IDL received was 5/5 and I had 2/2. Not surprising as Ian only had 20mW out and I had 20Watts. Not sure what antenna Ian was using but mine was a "coffee can" special with a probe antenna and the can was held onto the top of the ex surveyors tripod. See the picture 1. As time didn't permit me to construct a proper mount bracket for the ex pay TV dish I only used the coffee can for the test. The dish is shown on the ground in the second picture. The second contact was with Ian VK3AXH on Green Hill and I was copying him at 5/9+ and as it was an elevated line of sight, and he was running 20Watts his report to me was the same. The RxTx are boards from the South Australian supplier that others have used and the Power amp is a 20W unit from off Ebay. The intermediate drive and receive IF is using 70cm from a Yaesu FT817ND with the RF drive throttled well back to about 1.5W into the mixer. There are still some improvements to be done but its now the time to look out for some suitable mountain tops and see what maximum range I can work others from. 73 Craig VK3KG



Did you suffer any wind damage to your Antenna's

Monday 8th September 2014 will be a day I'd like to forget. Sitting at home and listening to the branches and twigs crashing onto our roof is not my idea of fun.

Living in an area with some sizeable trees we get this when there is any kind of strong wind so I do get nervous about my antennas at this time.

However you can imagine my thoughts when putting our dog out for its nightly ritual I happened to look up and instead of seeing 4 yagis I could only see 3. After grabbing the torch and pointing it upwards into the darkness sure enough there was the 4th yagi lying across the one below with its front on the flat roof of our house.

Although I've had two other failures over the past 12 years there hasn't been the damage that occurred this time with badly bent and broken elements and support stays to 2 of the 4 yagi's. However a couple of days later I tipped the mast over and began to survey the damage the main cause being the failure of the support structure on the top of the "H" frame. After removing and re-welding where the metal support had fractured and putting in a couple of extra braces it all went ok. I managed to straighten most of the elements however one has broken off and still needs to be replaced. The coax cable to the yagi that came adrift also looks a bit second hand so will probably have to change that down the track as well.

After almost a full days work I stood it all up again and still have to do some tests to check its performance which I suspect won't be at its best but as the weather improves I can have another go at it.

It's hard enough putting antenna's up but when they unexpectedly come down that's even worse. Did any other members experience antenna problems? If so why not share your experience with us as well.

For the technically minded the yagi's are designed by Gunther DJ9BV and optimised by Lionel VE7BQH for operation on the 2m band.

Each boom is 10 metres long, each yagi has 18 elements. All elements are insulated from the boom and fed from a 4 way home built power divider with low loss coax cable similar in size to RG213. The feed from the shack is low loss LDF450. The antenna is used for weak signal terrestrial contacts and EME having both azimuth and elevation control. Although this is done manually hopefully it won't be too long before PC control is operational.

Ian - VK3AXH



SILICON CHIP MAGAZINE

for September 2014.

Review by Craig VK3KG

FEATURES:

- P12 Read about the OMEGA navigation system we used before GPS.
- P32 Review of New Bluetooth hearing aid programmer.
- P57 ELECTRONEX exhibition in Sydney 10-11 September. A Review.
- P90 The Canberra Radio Fest. 19-21 Sept at ANU University Canberra.

PROJECTS:

- P20 The Opto Theremin. Play music with your hands.
- P40 Build a Wideband active differential Oscilloscope probe Very little circuit loading and 80Mhz Bandwidth.
- P74 Tiny IC produces 10W/channel Class D audio or 25Watts in parallel. Amazing size.
- P86 Improved Tweeter Horn for majestic Loudspeaker.

SPECIAL COLUMNS:

- P34 Servicemans log.
- P84 Circuit Notebook. Micromite controller for 230V LED Downlights, Safe measurement of Frequency output of a Induction motor speed controller.
- P92 Vintage Radio

DEPARTMENTS:

Includes letters from readers, mailbag, Product showcase, advertisements, the publishers Letter [Editorial], Notes and errata and the Advertisers index.

English Practical Wireless Review

Reviewed by

Craig VK3KG

9 PW Sep 2014. Vol 90. No 9.

P6 Editors vision

P 7 Latest News in UK and the world.

P10 Review The Wouxun UV-8D Handheld.

P12 The 50th Anniversary IOTA Convention.

P16 Emerging Technology.

P21 VHF from Anywhere.

P24 Doing by Design.

P practical Wireless's 70Mhz comtest.

P30 Ham Radio at Friedrichshafen radio show.

P33 Data Modes.

P what Next.

P42 HF Highlights.

P45 World of VHF.

P50 In the Shop. Talks about analogue meters and oscillator stability.

P54 A working QRP transceiver.

P60 Valve & Vintage.

P64 Rallies.

P66 Book review. The club does not receive copies of this magazine although we have some older editions on the shelf but the local library may have current ones.



**QST August
Reviewed by
Craig VK3KG**

P4/5 Index. Volume 98 No 8.

P9 Editorial. FCC gets it right. Some changes to Examinations.

P13 ARRL Exam Review software.

P24 Letters.

P30 Valve based Bench supply for valved Equipments.

P33 Vertical Antenna uses a Tape Measure. Great idea for Field day "Go Kit".

P36 Noise – Dealing with the Buzz. Blankers & DSP.

P40 Antenna feed line Control Box. Protection for off air Grounding remotely.

P45 Review: TEN-TEC Model 506 Transceiver.

P49 Review: Tecsun PL-880 Multiband Portable Receiver.

P51 Review AAPS3-1P Receiving Array and DXE Active Antenna Phasing array.

P55 The Doctor: Running power to a shack: HF Loop antennas : Fusing a Neg lead.

P57 Eclectic Technology: Doppler with a speeding Spacecraft.

P57 Android App to Calculate E-Skip above 50Mhz. *EsSense*.

P58 Hands on Radio. Ex 139 Digital Code Basics.

P60 Hints & Kinks. Various ideas to help.

P63 Forgotten hero of the *Italia* airship crash May 1928. Giuseppe Biagi.

P90 How's DX? How are expeditions funded.?

P92 World above 50Mhz. New 902Mhz Tropo record.

P97 Vintage Radio. TEN TEC Power Mites. PM1 & 2.

P99 Personal Visions. An Invitation to Innovation.

P102 QST Index from August- 1939, 1964, 1989.

P156 QSTs Index of Advertisers.

QST 9 Sept 2014

**Review by
Craig VK3KG**



- P4 Index.
- P9 Editorial. Looks at land covenants & amateur radio access.
- P24 Letters.
- P30 Antenna Masts: Safety & Selection.
- P33 XP to Linux: The "Why" for Hams. Dual booting.
- P37 New life for the SB-610 Monitor Scope.
- P43 New Product: SigTrax Signal tracking App.
- P44 A CTCSS Generator & 12/24 Hour clock. Add to a vintage radio.
- P48 Eclectic Technology. Communication without Infrastructure.
- P49 Review: Yaesu FTM-400DR and FT1DR Dual band Analogu/Digital Transceivers.
- P57 Hy Power Antenna LD 8073. Much shortened 80M dipole.
- P59 The Doctor. Q&A on various antenna concerns from readers.
- P62 Wideband Digital Quadrature LO Generator.
- P64 Hands on Radio. Ex 140. RF Measuring Tools.
- P67 Hints & Kinks. Android APRS, a good fit, & Weight control. Uses the Baofeng UV-5R transceiver.
- P69 TN2MS Dxpedition to the Congo.
- P72 Public Service. MS Society Challenge Walk.
- P88 World above 50Mhz. 2M Sporadic E lights up June. Rare event occurs. Try dxmaps.com to calculate MUF's
- P91 How's DX.? Tromelin Island in the Indian Ocean is the Ninth most wanted DXCC entity. Now to be activated Oct/Nov by French amateurs.
- P95 Vintage Radio. The dawn of SSB with the Drake 1-A.
- P100 Amateur Radio World: David VK3ADW receives the Michael Owen VK3KI Memorial Awarded for work with the IARU
- P104 QST index for Sep 1939, 1964, 1984
- P164 Index to Advertisers.

Jokes, Bits and Pieces

I tried to catch some fog. I mist.

When Chemist die, they barium.

Jokes about German sausage are the Wurst.

A soldier who survived mustard gas and pepper spray is now a seasoned veteran.

I know a guy who's addicted to brake fluid. He says he can stop at anytime.

How does Moses make his tea? Hebrews it.

I stayed up all night to see where the sun went. Then it dawned on me.

This girl said she recognized me from the vegetarian club, but I'd never met herbivore.

I'm reading a book about anti-gravity. I can't put it down.

I did a theatrical performance about puns. It was a play on words.

They told me I had type A blood, but it was a type-O.

This dyslexic man walks into a bra.

PMS jokes aren't funny, period.

I didn't like my beard at first. Then it grew on me.

A cross-eyed teacher lost her job because she couldn't control her pupils.

When you get a bladder infection, urine trouble.

What does a clock do when it's hungry? It goes back for seconds.

I wondered why the cricket ball was getting bigger. Then it hit me!

Broken pencils are pointless.

What do you call a dinosaur with an extensive vocabulary? A thesaurus.

England has no kidney bank, but it does have a Liverpool.

I used to be a banker, but then I lost interest.

I dropped out of communism class because of lousy Marx.

All the toilets in London police stations have been stolen. Police say they have nothing to go on.

I took the job at a bakery because I kneaded dough.

Velcro— what a rip off!

Cartoonist found dead in home. Details are sketchy.

Husband's message (by mobile phone)

Honey I got hit by a car outside the office, Paula bought me to the Hospital. They have been making tests and taking X-rays. The blow to my head though very strong, will not have serious or lasting injury. But I have three broken ribs, a broken arm, a compound fracture in the left leg, and they may have to amputate the right foot.

WIFES RESPONSE: Who is Paula ?

FROM SALGUOD

List of items for sale

VK3PUD Radio equipment for sale

Universal Aerial Coupler
Emtron EAT 300A ATU
Brass Morse Key
2 Gang capacitor
Power Supply (home brew) in computer case
Viacom VC-2 SWR/Power meter 3.5 - 150 MHz
4 Position Antennae Switch
ICOM IC-720A HF Transceiver
ICOM 22A 2m FM Transceiver
SX200 AM/FM Scanner
Extendable Tower
3 element beam
Round DC7075 Controller & Rotator
Transwest regulated power supply
Hanimex UHF/VHF/HF receiver
Realistic DX receiver
Assorted speakers & headphones
Kenwood MC 50 desk mike
assorted power outlets

For more information contact Gordon Cornell (VK3FGC)

On phone: 0411 138 197

B.A.R.G Items For Loan

Antenna Analyser MFJ249 HF/VHF
Antenna Analyser MFJ269 HF-VHF-UHF
Antenna Analyser VHF. Autek
Antenna Gin Pole.
Grid Dip Oscillator.
Oscilloscope BWD 509.
Receiver Drake SSR-1
Receiver FRG-7.
Transceiver TS-530.
UHF Antenna Analyser

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Cnr Carngam 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
	     

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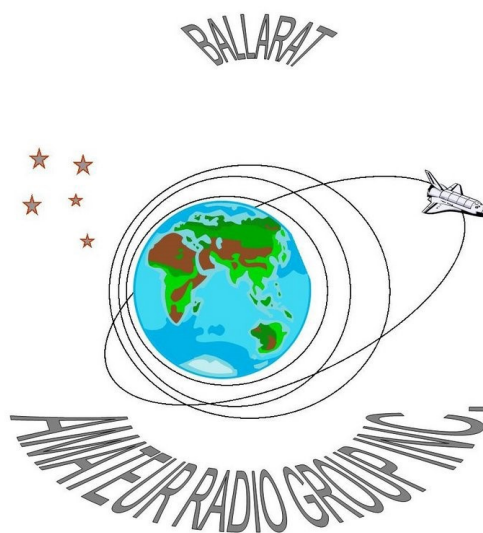
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Notices from the Editor

The cut off date for articles to be submitted for the October newsletter, will be 27th October 2014 by 12:00 hours. This will allow me time to produce the newsletter, and send hard copies to the members by 18:00 hours mail. Anything that is received after this time will be placed into the next newsletter unless it comes to me marked urgent then i will endeavour to put it into the current newsletter. Items can be sent to me by email on news_editor@barg.org.au or by post to the address on the front of the newsletter. Thanks All.



*Disclaimer: I have attempted to produce a fair and accurate newsletter from the information provided to me. If I have failed by error or omission, I apologise.
The newsletter editor.*