



BARG News

Ballarat Amateur Radio Group

Inc. #6953T

November 2021

Monthly Newsletter

Next Meeting

6:00pm, Friday 26th November 2021

At the Airport

All Welcome



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 1218
Mail Centre
Bakery Hill Vic. 3354

Or E-Mail : vk3bml@barg.org.au

We're on the web
www.barg.org.au



Presidents November Report



Hi All,

Welcome to the November newsletter for the Ballarat Amateur Radio Group. As we come up to the end of the year, we're seeing the impact of Covid on our ability to meet face to face finally relaxing. So, the next two meetings will be face to face.

November Meeting: Friday 26th at the club house. This was originally planned to be a Saturday meeting, however that would clash with the Summer UHF / VHF field day and a few members also had other commitments. So instead, the meeting will be Friday night, starting at 6pm. The formal meeting will be at the end of the evening, followed by some light refreshments.

The evening will still be a working bee, making the most of the longer daylight hours. There's a bunch of things to get done:

- Installation of the EFHW antenna and associated coax
- Installation of the larger rotator on the UHF / VHF tower
- General clean of the interior of the club house, including the kitchen and toilets that all have suffered from mouse infestations and general lack of use
- General gardening clean up, including a mow and a solid trim back of many of the bushes at the front.

To clean the yard we'll need line trimmers, fuel for the mower, hedge trimmer, shovels to break up the various rabbit burrows.

VK3BYD, Ian, is planning to bring a mulcher. Please do not cut back material that can't be disposed of on the night. (Don't create piles of rubbish to be taken away later, unless someone is actually arranged to take it away.)

6pm start!

The December meeting will be the club breakup. That'll be held Friday 17th, also starting at 6pm. It'll be a BBQ out at the club.

We looked at a couple of other options, but this seemed like the best option give the changing Covid state.

Hopefully 2022 allow us to do a lot more face to face radio activity that we have had in 2021.

I look forward to seeing everyone soon

VK3OAK

Club Nets: **VHF NET:** Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA
HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML
6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU
REPEATERS: VK3RWA - 147.100, VK3RBU - 438.475, VK3RPC - 144.750, VK3RBT - 146.650
VK3RBA, Mount Buninyong - 146.750 & 439.275 & 1273.925
VK3RBA and VK3RWU on Mt William, VK3RCU on Mt Moliagul, VK3RBH in Geelong and VK3RAD in Mitcham are linked. All on 70cm.
VK2RWB, Mt Gwynne added to the linked system. The system can be accessed via IRLP node 9503.

| <u>For VK3BML club station of Ballarat Amateur Radio Group.</u> | | | | |
|--|-----------------|-------------|----------------|-------------|
| BARG THURSDAY NIGHT NET CONTROLLERS LIST. | | | | |
| DATE | OPERATOR | NAME | BACK UP | NAME |
| 25-Nov-21 | VK3TXR | PAUL | VK3QY | CHRIS |
| 2-Dec-21 | VK3QY | CHRIS | VK3HMY | ANDY |
| 9-Dec-21 | VK3HMY | ANDY | VK3DRE | DOUG |
| 16-Dec-21 | VK3DRE | DOUG | VK3MCL | SCOTT |
| 23-Dec-21 | VK3MCL | SCOTT | VK3AXH | IAN |
| 30-Dec-21 | VK3AXH | IAN | VK3KG | CRAIG |

Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

VHF and Above for November 2021

This year is rapidly coming to an end which unfortunately hasn't been all that we had hoped for with the higher frequency bands for those keen on weak signal activity.

This past month has been much the same with only a very few openings on any band. I'm only aware of one occasion I heard both the 2mx VK5VF and VK5RBV beacons and even then, they were quite weak.

Paul VK3TXR has had good success on 6m meteor scatter so is flying the flag for us all. However, with the hopefully warmer weather coming along some of the club's enthusiasts can get going with their gear that's been sitting idle for some time.

This coming Saturday/Sunday is the WIA Spring Field Day weekend. If the weather is kind to us we hope to be operating from Mount Buninyong on the Saturday. I'm aware of around 6 members that are planning to take part on frequencies from 6m through to 10GHz. In addition to this group Chris VK3QY will be operating from One Tree Hill near ARARAT so hopefully we can have some good contacts with him and the many stations in and around Melbourne.

If you are interested in this activity, I suggest you come along and have a look or if you have the gear, take part as well. It's proposed that those taking part use their own callsign and keep their own log. The rules regarding this event can be found on the WIA website under contests. Logs can be submitted using the electronic version or paper logs set out according to the requirements as listed. Mt Buninyong Grid locator is QF12XI.

Let's hope the weather is kind to us this time. 16 degrees is the forecast with no rain so let's hope it's correct.

Till next time 73 VK3AXH



A PHOTGRAPHIC COLLECTION OF AMATEUR RADIO PICTURES

Tom VK3DMK

Jim Watson, VK3NQ, lived in Darlington, Victoria and in the 1930's before the war was an Amateur Radio Operator.

He was my great Uncle, my grandfather's brother on my mother's side. I did meet him at a family reunion sometime in 1970's.

Jim was in the 1930's and still up to the 1970's an avid twitcher, my cousin has the many notebooks he carried with him on bicycle travels, noting the birds and location.

My late mum was fortunate enough to be given these photographs from his estate. She can remember Jim using the width of the local Darlington recreation reserve, footy ground, to erect some large wire aerials to do some experimenting.

The photographs show the very basic wireless gear that they had to build, no Strictly Ham or ICOM in those days. Apart from equipment photographs there are many of the operators themselves and various Amateur Radio field days.

I am posting some of these photographs (over 100) on the BARG Facebook, but for those who find it easier, I will keep posting here in the newsletter. I will try and make each presentation a mix of gear and social photographs of the hobby in the 1930's.



Figure 1.
VK3NQ QSL card, "Wattleville" was the name of the small property about 3kms outside of Darlington.



Figure 2.
Jim, on the left, with a mate outside his shack.

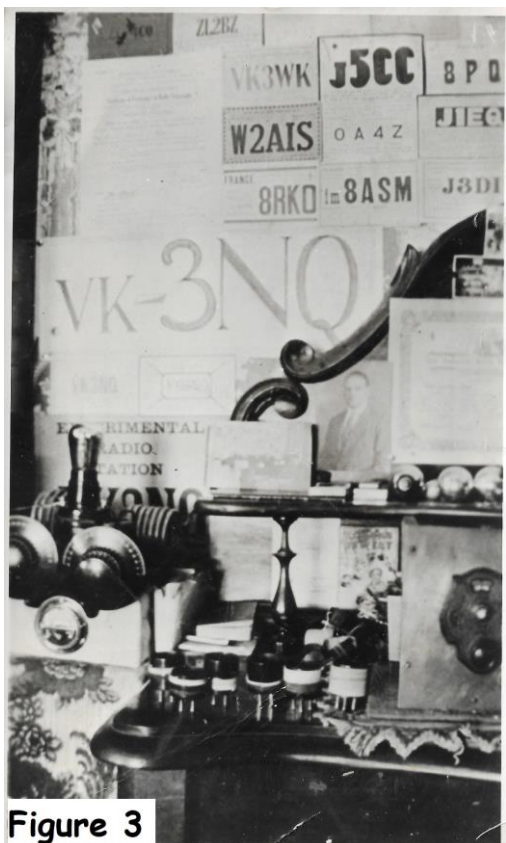


Figure 3

Figure 3.
Part of the VK3NQ shack.

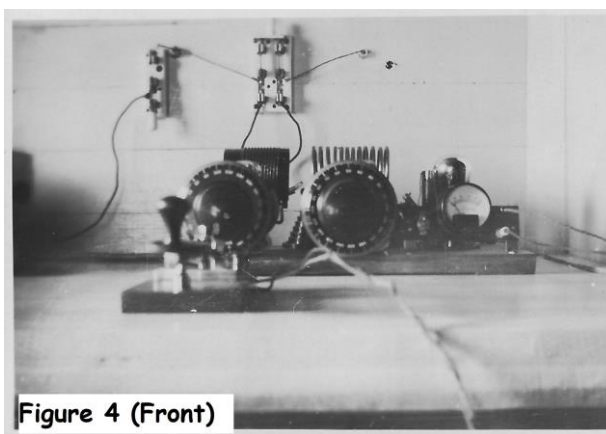


Figure 4 (Front)

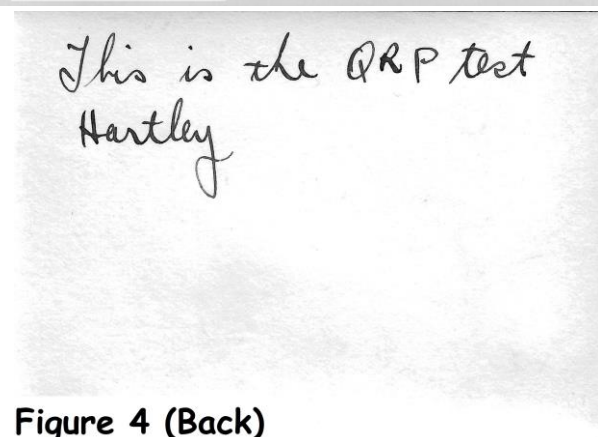


Figure 4 (Back)

Figure 4.
Front and Back. A QRP Hartley
oscillator rig.

| | | | |
|---|---|---|------------------------------|
| QRA. WATTLEVILLE. DARLINGTON. VIA CAMPERDOWN. | | | |
| VICTORIA, AUSTRALIA | | | |
| RADIO. VK-3NQ | UR. REPT. RECV. AT. "LISTENER-IN" ON TIME | | |
| QSA. GUD | QRM. NIF | QRN. NIF | QRH. 7000 KC. MANY |
| XMITTR | | WX. FINE ~ MUP | |
| HARTLEY W/ | | RECVR | |
| 6 WATTS FM "E" | | 4 TUBS. ATT. WAVE. SG. | |
| 5 ATTS ON 1A2Q1A | | 3 TUBS. FI. | |
| ANTENAE. 1/2 WAVE. TEF | | DX. 7F. 1, 2, 3. RE. VK | |
| 1/4 WAVE. FEEDERS | | DOPE. MANI. INX. PER. FB. REPT. IN "E.I". THOUGHT U. MITE | |
| FINE. TUBE. ON. QRM. SHOUSER. HI!! | | UP. SIGS. CC. R. 6. HR. | |
| LAST. SUNDAY. WEN. WKING. "WATIE". FB. | | VY. 73 es best DX | |
| PSE | QSL | OM | CHEERIO FER NW. J. D. WATSON |

Trawling the net, I found this, an older VK3NQ QSL card, it came up for auction a couple of years ago, sold for \$36.00 I believe.

Note: A lot of abbreviations accustomed to morse communications.

Editors Bit:

Anyone with material for the Newsletter, reports, pictures etc.

Please email to tomvk3dmk@gmail.com

The Inaugural Warrnambool Hamfest 2021

A joint Warrnambool District Amateur Radio Group
and Portland District Amateur Radio Group event.

When ?

27th December, 2021

Open To Public: 10am

Where ?

91 Hyland Street

Warrnambool, Vic

Entry

Only \$5.00 per person

includes one entry into Door Prize draw

Trading

Trade Tables \$20 each

[See Traders Information](#)

Sponsors

Strictly Ham

PR Electronics



The inaugural Warrnambool Hamfest is a new event on the Amateur Radio calendar.

One we hope will continue on beyond this event.

It came about from the desire of us hams here in the Western District to get something happening post lockdown.

With restrictions easing we felt the time was right to organise an event that was local to us.

Whilst most of us travel to other hamfests, an event of our own was appealing.

With active operator numbers growing in the district, we now have the manpower, and enthusiasm, to take on an event like this.

We hope to provide everyone a good fun radio day. Come along and catch up with everyone.

Contact: wdarg21@gmail.com

Repeater Call In Callsign: vk3way

Contact on the day via VK3RWL 2m repeater

147.050 MHz with +0.6 MHz offset and 91.5Hz CTCSS.

COVID SAFE Due to Government regulations, this must be a covid safe event.
All attendees will have to scan/sign in AND provide a double vaccination
certificate. We thank you for your understanding.

How I Started Amateur Radio



Colin VK3NCC

We all have different stories to tell about how we discovered Amateur Radio.

Mine started when I heard this strange voice saying "America, London Zanzibar" and coming out of the TV set. This occurred as I was turning the channel knob and it landed on channel 5

It turned out it was a local amateur who lived about 250m away.

I then started using an old mantle radio, every so carefully twiddling the dials. I recall being able to resolve SSB by having another radio close by.

This is one of the first QSL cards I received and if you can decipher the doctor's handwriting you will discover that he offered to loan me a small communications receiver for a month. I gladly took on that offer, and that really opened my eyes to what was happening on the bands.

It's one of my favourite QSL cards received as an SWL.



WIA -L3371

To Radio..... confirming QSO

of 25/6/1968 at 1155 G.M.T. E.A.S.T.

on 14 E VK3BV on SSB, Ur CW/Fone sigs

R.....S.....T..... Transceiver Galaxy 3

2 el Quad 12' spacing 50' high Ant

Pse. TKS QSL 73.....

Personal Note:
Born 1920, graduated in Medicine in 1944. In general practice with group in semi-industrial suburb. Late interest in radio and licenced in 1965.
XYL Yvonne and 5 harmonics.

Thanks Colin for your report & congratulations on resolving sigs. If you would like to borrow a little communication RX for a month, only be happy to lend it - not very stable on 14 megs but good on 7+3.5. Best of luck with hobby
Heath



FEATURES AND REVIEWS.

16 **Big brother is Tracking You.!** Pt 1.

Just think about all the trails we leave behind as we go about our business these days. Is it possible to have a “zero” footprint trace amongst all our life activities? Dr David Madison ask’s What can you do about it.?

37 **El Cheapo modules** 6GHz Digital Attenuator. Compares last month’s 3.8GHz unit however this one is more versatile due to its 0.25db steps between 0 - 31.7dB covering from 1MHz up.

40 **Review:** The R80 synthesized aviation band receiver kit which costs only \$50. Suitable for “bird watchers” around the local airports. Although well packed components and a double conversion superheterodyne with a four digit display. Box supplied is 130 90 x48 and author has cut his down by a few mm so it could be mounted in a dashboard or glove box without being too obtrusive in family car. Alignment easy without any lab equipment. A very minor modification was necessary to alleviate a squelch problem with the AM received signals. A full description of this job is given. Author gives this device a well placed score and recommendation

CONSTRUCTIONAL PROJECTS.

28 **USB cable tester Part 1.** Very handy device to have as it will test Type A&B leads in full size and Micro-B and Mini B along with the newer USB-CV connectors. Using a four line digital display read out reports not only S/c and O/c can tell if LED’s have too much resistance and causes excessive voltage drops etc. The “roadies” cable tester for the computer person. Kits available SC5966 from Silicon Chip with a warning about current supply delays with some components. Cost is \$110 + postage and \$99+postage for subscribers. There are a couple of SC articles referenced about USB history and description of the differences in what the numbers mean.

56 **Pocket Wx Station** for beginners with a pocket-sized unit and a OLED readout. A parts list given but no reference to a supplied kitset yet.

60 **Model Railway Carriage lights.** For the OO gauge enthusiast uses just two chips and a handful of components with a 3V Lion battery or AAA cells with bit more space management skills. You will need to do some programming of the PIC device though. The project drives five white LEDs from the derived 24V source.

78 Continues the two or three way audio crossover network from last month. Describes the loading of the pcb and some troubleshooting activities

YOUR FAVOURITE COLUMN.

53 **Circuit Notebook.** Where you can submit ideas of your designs.

1. Modifying the Micromite software to use a 3.5”: display
2. A very interesting concept and construction for operating a lift [or other devices] by voice command and proximity control. Developed for use at a workplace there may be many things that can be controlled by a user around the shack or into the home environment. Two separate designs using relays to switch higher current devices one has an ARDUINO UNO for voice control and the other using an ATMEGA 328P.

64 **Vintage radio** looks at Stromberg Carson model 486 from 1936.

84 **The Serviceman’s Log** talks about the 1980’s gear.

EVERYTHING ELSE.

- 4 Editorial
- 6 Mailbag. Your feedback
- 92 Ask Silicon Chip.
- 90 The Silicon Chip online shop.



FEATURES AND REVIEWS.

12 **Big brother is tracking you!** - Part 2. Still. It's not North West Cape or the Chelsea GHQ sites we need be worried about but ones set up by bodies that can listen or scan our computer files from afar, or maybe just gathering statistics on how many times we use a particular site or search a site of interest. How can windows post a request on your behalf to look at a photo you took three years ago.? Is it easy to locate a person by the footprint left from the use of their mobile phone?

What can be gained from looking at your use of electricity account? Have you heard of the "Weeping Angel" program that creates a FAKE OFF program for a TV but leaves it on and it can still act as a microphone for someone to listen in to conversations?

No, it can't be done!! Or can it?

Authorities have been able to monitor sewage in their endeavor to track drug use in various areas and to also track COVID outbreaks interesting reading with number of web sites to check out.

30 **SMD Soldering tips and tricks.** It's a long way from soldering with a plumbers "half pound weight" gas /blow torch heated soldering iron. Things improved when the locally built SCOPE iron evolved, and components were usually wire leads wrapped about "tag or terminal" strips. Problems started when wires were substituted for copper tracks of various thicknesses and wired components poked thru the laminate board. Too much heat held for too long a time and the copper track would lift off. Smaller irons developed with controlled heat detection as copper tracks shrunk smaller and smaller. When the ½ watt resistors shrunk to ¼ and 1/8th size the development in capacitor technology also changed with moves away from a wet polarizing composition and aa shrinking size. Smaller and smaller came ALL components and instead of picking the components out of a box as individual items the devices were now so small they were placed on a paper/plastic ribbon and you tear them off the roll as required. Components now are graded by the footprint package they make. See the diagram showing some like: SOT-143, DO-221AC, SOT-223-3

Tools like tweezers wicking braid and assorted types of soldering iron tips now are used to handle components. Soldering of complete boards are also done with the flow on soldering technique.

Remember the advert on tv where Solly is told "Oils aint oils Solly" well solder has changed also now. Once we used stick solder with a cleaner called Baker's flux.!! Which wasn't the kindest material around electrical components then to a resin cored solder that applied its cleansing flux as it melted the solder combination. Called 60/40 then 63/37 where the ratio of Tin[Sn] and Lead[Pb] changes to give either greater strength to the bond or allows both metals to melt at the same temp simultaneously. Now with Health and safety in mind the use of lead[Pb] has been taken away from solder.

43 **El Cheapo Modules:** 35MHz to 4.4GHz Signal generator Jim Row looks at the Geekcreit's simple modules again. Only \$48 + postage it has a ADF43451 wideband digital synthesizer chip and an OLED display. You only need supply the +5V power and the signal is available on two different USB sockets. With only five small pushbuttons to operate and control it the device will make 0 dB[1mW] output over the stated range BUT it does have some issues like very rich output harmonics above 1200 MHz and in need of shielding and line output filtration if serious use as a signal generator required.

48 **The Raspberry Pi Pico Microcontroller.** Part of a range of inexpensive single board computers which are very well disposed for educational markets and used in many other applications found by the experimenters.



CONSTRUCTIONAL PROJECTS.

18 **Humming Bird Audio amplifier.** 60W into 8 ohm or 100W into 4 ohms. And make it into a multichannel amp using one heat sink mounting.

38 **SMD Trainer board.** Dabble with the Surface Mount Devices [SMD] using tweezers and maggi lights to observe these very small grain like components. Good eyesight will be a winner along with sufficient white light.

61 **Digital Lighting** Use this controller on any of the SC's slave lighting units designed from 2010 to 2011

85 **The USB cable tester Part 2.** Final construction and how to fault find and how to use it for different cables and connector series.

YOUR FAVOURATE COLOUMNS/

68 **Serviceman's Log** of various jobs by Dave Thompson. He calls it Odds, sodds, ends and Bobs.

76 **Circuit Notebook** Make your own Orry or planetarium using a Micromite LCD Backpack.

A No contact Cloud based temp sensor switch with a Speech output.

Device for switching Li on cells between series or parallel charging.

Connecting two pushbuttons to an input only pin.

94 **Vintage Television.** Restoring a Sony 5-30ER Micro TV From 1962 and of course its Black and White and a miniature set.

EVERYTHING ELSE.

2 Editorial 108 Ask Sil chip

4 Mailbag

112 ERRATA: Oct 2021 Tele-com intercom, June 2021 Hybrid Lab supply with WiFi

As Heard On the Bands.

From Craig, VK3KG.

Garry VK3NN on 2m SSB last night, Tuesday 23/11/2021, on 144.120 answered a CQ call from Craig VK3KG who was beaming south towards Tasmania.

Nothing heard from VK7 although the beacon was heard faintly.

Garry called Craig and a contact made. from Cape Clear to Shelford.

From Peter, VK3PWG 24/11/2021

Quick update on GD-77 activity, now that I've actually downloaded and read some of the manual/guide for the new firmware for the GD-77, I'm learning new stuff all the time.

I've worked AO92, ISS and AO91 today with stations from VK6, VK2, VK4, but my arm is getting pretty tired swinging the beam around it's a bit of a handful after a while. Anyway, it's great portable activity and I think now my GD-77 has become my permanent satellite radio.

I've even learned a better way to set the time and also discovered how to add additional satellites, you need your laptop, but it does make the job much easier.

So, anyone with a GD-77, I would highly recommend the new firmware from OpenGD77.com, it makes the GD-77 so much more versatile.

Thanks to Rob VK3PTW for pointing me in the right direction.

From Steve, VK3ZAZ 24/11/2021

I have become reinvigorated with the idea of working sats today I heard VK6GC working TD0AVY and YC2YIZ on FM 145.895 down +/- but can't find this bird on AMSAT

Anyone know its ID and up and downlinks please.

I run full tracking here