Ballarat Amateur Radio Group Inc. (BARG)
HAMVENTION
Sunday 5 February 2023
At the Ballarat Polo Club, Ballarat Airport
Next to BARG clubrooms
Display and Sales (setup from 0800)
Trade Tables $20.00 each (includes one admission)
Plenty of parking, simply follow the signs
General Admission $7.00 (under 15 free)
General Entry: STRICTLY 1000
BBQ and drinks available
Enquiries & bookings: hamvention2023@barg.org.au
Details: www.barg.org.au

BARG News

Ballarat Amateur Radio Group
Inc. #6953T
January 2023 Monthly Newsletter

Next Meeting
11:00am, Saturday 28th January 2023
At the Airport

All Welcome

Contacting us
You can e-mail the secretary

vk3bml@barg.org.au
We're on the web
www.barg.org.au
https://twitter.com/vk3_barg
https://www.facebook.com/groups/VK3BML/

Presidents Report January 2023

Here we are at the start of another year.

Hamvention is next month 5th of February if you have not already Volunteered to help on the day please do so via the form or email me directly. BARG Members volunteering for 2 or more time slots on the form will get free entry on the day. The form can be found here on the BARG website at https://www.barg.org.au/

We also need some help to set up on Saturday the 4th of February time to meet at the clubrooms will be put out soon or at the General meeting on the 28th of January.

The IRLP and Echolink node that is on the VK3RWA repeater is once again broken and we have now deemed it beyond repair. An upgrade to a AllStar Node with Echolink, and Maybe IRLP is now being planned. For the time being there will be no WIA broadcast and if you still want to listen to it you can by going here https://www.wia.org.au/members/broadcast/wianews/. The current node has been disabled until further notice. Trying to enable it again may make David or Myself pull out the large hammer…

VK3RBA 70cm… As I outlined in my members email on the 2nd of January this year. There have been some issues with a Melbourne based operator not liking our publicising of the new details every time they are changed this is now a non-issue it is only one person not in control of the 70cm repeater the details will now remain live on the website for all to see and also on our Facebook Group. Details will only be taken down on request from the repeater owners. Now there has been and still to be heard again an alleged pirate on the RBA 70cm repeater, I again ask for a call to arms if anyone hears this alleged pirate and has the ability to direction find maybe we can triangulate the person and do something about it. Please submit any direction and signal reports to me vk3nrd@gmail.com, you will know this person by the yelling of Bernard apparently, I am still to hear this it often was happening within the welfare net at 10 am on weekdays. Small note for those who use Repeater Book and the BlueCAT option to program their radio the VK3RBA 70cm Details are no longer listed on Repeater book due to this Melbourne based operator, so you will need to program it in manually.

Chatter emails, why I have to do this is completely an annoyance and seems to have become the bane of my existence. To my knowledge chatter was created for random emails that did not fit into any of our other email list, but recently there has been a spate of what could almost be regarded as spam to this list. If you have a new toy, you like playing with as someone did recently find out who would be interested and do it in a different way by emailing those that are interested. What I call in an email the other night “Dad Jokes” are fine I may have a few prizes at the end of the year for the Worst and Best ones, yes, the score card has started as there are 2 main members who post these and yes I do read them now.

The HF Net Controller Roster, some of you need to learn patience again. The amount of whinging this week about it running out and there not being a new one

has been massive. Craig VK3KG who puts this together has some minor computer issues over the last few weeks, some of us did offer to help when this was heard about but the current roster does not run out until the end of the month, so I don't see a problem here, yet some did why is completely beyond me.

What is on the President's Radio project list at the moment, this will be an occasional list of the amateur radio project I am working on some may even turn into newsletter articles. My current on the bench project is finishing off the MST-3 transceiver I started to build earlier this year, I am a couple of components away from completion now, just waiting for Hamvention to find some of the missing bits rather than buying new.

Another project on the go is an Hourglass Loop Antenna for 2m SSB, I had planned to have this finished before Christmas and be portable some mornings on 2m SSB but due to other commitment keeping me busy this one had been put on hold, not for much longer though I hope. If you are interested in the Hourglass Loop Antenna, just use Google and look for a PDF Article from ARRL by John Stanley K4ERO it is the one I am using to build mine.

If you have got this far into my report which must be almost a record length for a president's report, there is one final thing I have left for last. We need some interest items for discussion after each meeting again and projects for Construction Night. What do you want to have a talk about or what would you like to build. Let any of the committee members or myself know so we can set something up for a presentation or a Club construction project. We are no longer restricted by COVID so let's get back into it again.

Small note the Hamvention will be being promoted on Voice FM 99.9 MHz on Wednesday the 25th of January. As I seem to have ended up Co-Host/Producer on a Wednesday now rather than just a producer.

Until next month 73's Ben Daniel VK3NRD.

Scanned copies of the BARG Newsletter

There are available on the BARG website scanned copies of old BARG Newsletters.

Colin VK3NCC with the copies supplied by Craig VK3KG has been scanning them and adding to the collection on the website.

Great job.....

Times and dates of nets as per below

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

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*
Access details for this repeater have recently changed.
For full details of this linked network and access details see https://www.qrz.com/lookup/vk3rba
You can listen to the system live http://vk3rba.dyndns.org:441/
This linked system may be accessed via IRLP node 9503.

BALLARAT RADIO AMATEUR STATION PASSES ON URGENT MESSAGE FROM U.S.A.

MELBOURNE, November 30.

While experimenting from his amateur wireless station, VK3WD, at Ballarat, on short waves yesterday, Mr W. G. Mather heard the New York amateur station W2LKV seeking contact with any Australian amateur with an urgent message for Commander Yancey, officer in charge of the luxury flying boat Guba, which is now at Port Phillip, that his brother had died. The message was passed on, and later Mather was able to inform the American station that the message had been delivered.

Contributor; Colin VK3NCC

Melbourne, November 30

While experimenting from his amateur wireless station, VK3WD at Ballarat on short waves yesterday. Mr W.G.Mather heard the New York amateur station W2LKV seeking contact with an Australian amateur with an *urgent message for Commander Yancey* officer in charge of the luxury flying boat Guba which is now at Port Phillip, that his brother had died. The message was passed on and leter Mather was able to inform the American station that the message had been delivered.

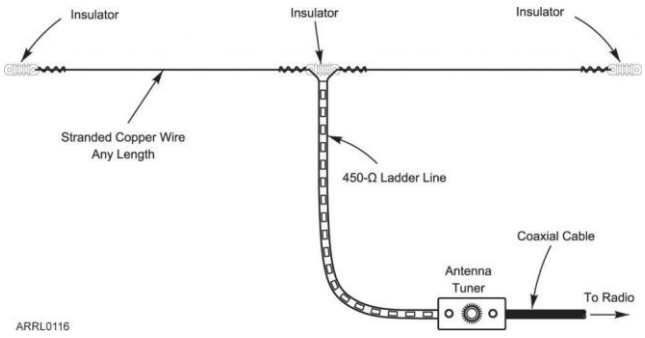
VK3BML HF ROSTER.

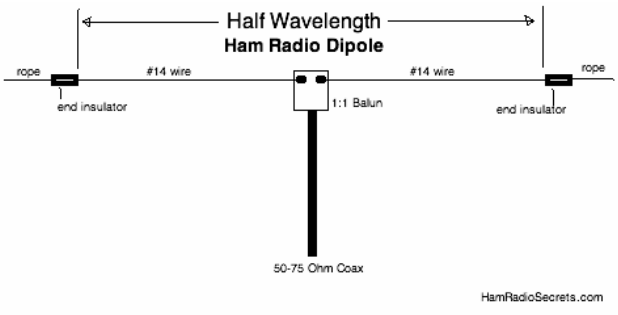
New roster Jan-Jun 2023

80M CLUB HF NET EVERY THURS NIGHT AT 8PM ON 3608Khs +/- QRM.

BARG THURSDAY NIGHT NET CONTROLLERS LIST.

DATE	OPERATOR	NAME	BACK UP	N.C.S. NAME
19-Jan-23	VK3DRE	DOUG	VK3MCL	SCOTT
26-Jan-23	VK3MCL	SCOTT	VK3AXH	IAN
2-FEB-23	VK3QY	CHRIS	VK3COE	ANDY
9-Feb-23	VK3COE	ANDY	VK3DRE	DOUG
16-Feb-23	VK3DRE	DOUG	VK3MCL	SCOTT
23-Feb-23	VK3MCL	SCOTT	VK3AXH	IAN
2-Mar-23	VK3AXH	IAN	VK3KG	CRAIG
9-Mar-23	VK3KG	CRAIG	VK3TXR	PAUL
16-Mar-23	VK3TXR	PAUL	VK3QY	CHRIS
23-Mar-23	VK3QY	CHRIS	VK3COE	ANDY
30-Mar-23	VK3COE	ANDY	VK3DRE	DOUG
6-Apr-23	VK3DRE	DOUG	VK3MCL	SCOTT
13-Apr-23	VK3MCL	SCOTT	VK3AXH	IAN
20-Apr-23	VK3AXH	IAN	VK3KG	Craig
27-Apr-23	VK3KG	Craig	VK3TXR	Paul
4-May-23	VK3TXR	PAUL	VK3QY	CHRIS
11-May-23	VK3QY	CHRIS	VK3COE	ANDY
18-May-23	VK3COE	ANDY	VK3DRE	DOUG
25-May-23	VK3DRE	DOUG	VK3MCL	SCOTT
1-Jun-23	VK3MCL	SCOTT	VK3AXH	IAN
8-Jun-23	VK3AXH	IAN	VK3KG	CRAIG
15-Jun-23	VK3KG	CRAIG	VK3TXR	PAUL
22-Jun-23	VK3TXR	PAUL	VK3QY	CHRIS
29-Jun-23	VK3QY	CHRIS	VK3COE	ANDY
6-Jul-23	VK3COE	ANDY	VK3DRE	DOUG
13-Jul-23	VK3DRE	DOUG	VK3MCL	SCOTT





BARG

THURSDAY

COFFEE CLUB

EVERY THURSDAY 10:00AM

FOOD SEDUCTION ON DOVETON

524 DOVETON STREET NORTH

ALL WELCOME…

VK Repeater Linked System

VK3RBA70 FM 439.675MHz (-7MHz offset) 91.5Hz Site: Mt Buninyong (Ballarat)

VK3RSU70 FM 438.100MHz (-7MHz offset) 91.5Hz Site: Mt View (Glen Waverley)

VK3RWU70 FM 438.675MHz (5-MHz offset) 91.5Hz Site: Mt William (Grampians)

VK3RCU70 FM 438.350MHz (-7MHz offset) 91.5Hz Site: Mt Moliagul (Maryborough)

VK3RBH70 FM 438.175MHz (-7MHz offset) 91.5Hz Site: Geelong

VK3RUT2 FM 145.075MHz (Simplex Gateway) 118.8Hz Site: Warrnambool

VK3RGV FM 439.775MHz (-5MHz offset) 123.0 Site: Mt Wombat (Shepparton)

VK3RRU70 FM 438.525MHz (-5MHz offset) 91.5Hz Site: Merbein (Mildura)

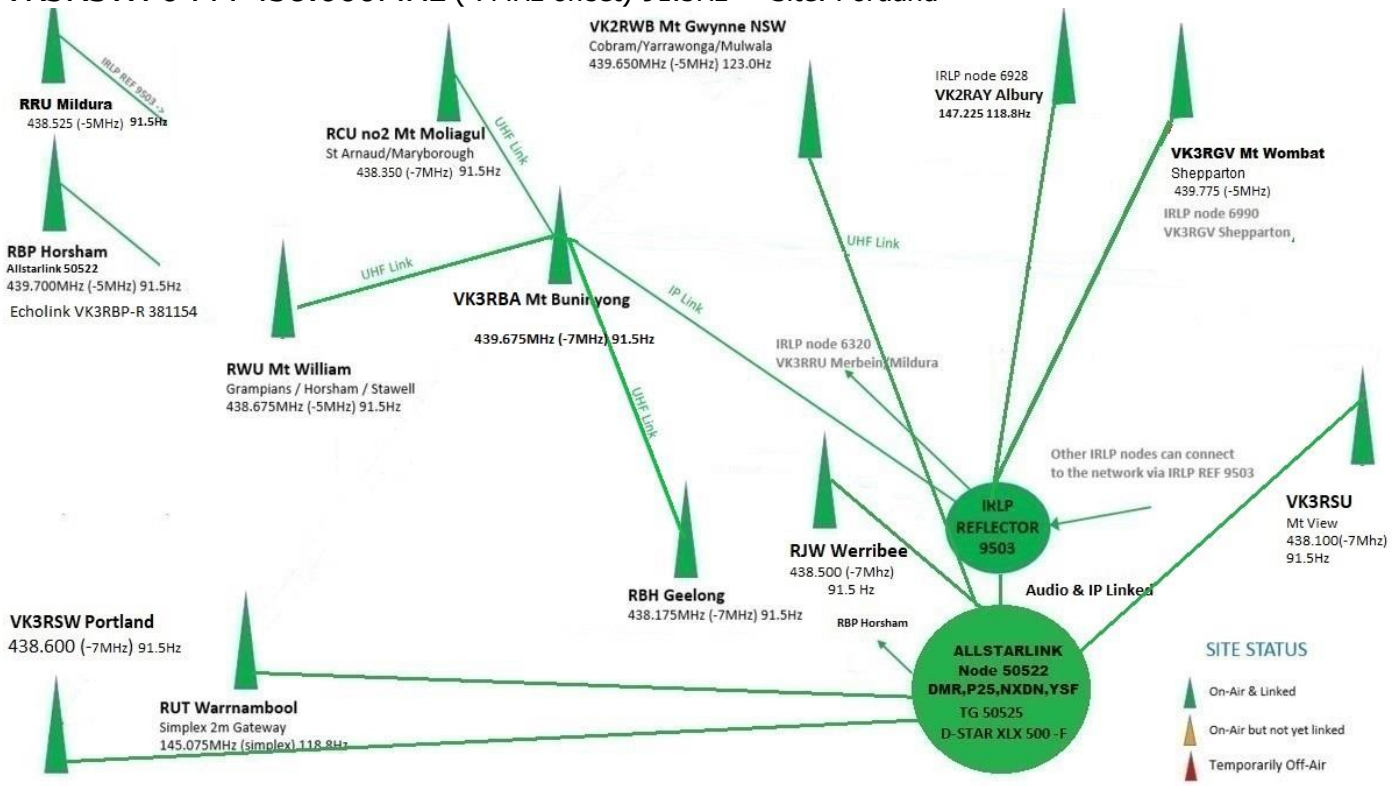
VK3RBP70 FM 439.700MHz (-5MHz offset) 91.5Hz Site: Horsham

VK2RAY2 FM 147.225MHz (+600Khz) 118.8Hz Site: Albury NSW

VK2RWB70 FM 439.650MHz (-5MHz offset) 123.0Hz Site: Mt Gwynne NSW (Yarrawonga)

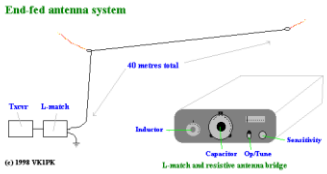
VK3RJW70 FM 438.500MHz (-7MHz offset) 91.5Hz Site: Werribee

VK3RSW70 FM 438.600MHz (-7MHz offset) 91.5Hz Site: Portland

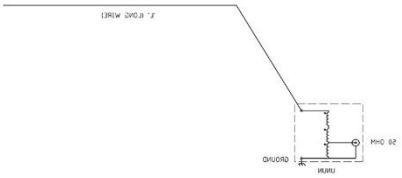


To link to this repeater system when not in RF range:
IRLP connect to reflector 9503.
Allstarlink connect to Node 50522.
Echolink via VK3RBP-R 381154
Digital modes P25 ,DMR,NXDN and YSF use Talk Group 50525 and D-Star Reflector DCS500 F .

Some IRLP node repeaters such as in Mildura, Albury and Shepparton are usually linked to IRLP REF9503 by default. https://www.qrz.com/db/VK3RBA



40m EFHW



Contributed by Peter VK3PWG with
inspiration from Peter VK3YE

I wanted something quick and easy to deploy and self-contained (except for the Squid pole). I had another that some may have seen me use in the past, but I didn't like the way it rolled up or unrolled. This is a dream to unroll and roll up and surprisingly quick to get on air and it all fits on one reel.

Knocked this up this morning (well finally finished it this morning) and made a couple of contacts just after lunch. Conditions weren't all that good, but it worked, with just 5 watts.

I still have a couple of modifications from my original idea, but pretty happy with how it turned out. There are heaps of these around and this is not entirely my idea, but a combination of other ideas. It suits me and is cheap and easy to make as well as easy to use. At this stage it's just a single band but experimenting with other ideas.

And yes, I know . . . what's wrong with a dipole . . . absolutely nothing . . . this just fitted my criteria and works.

Quick, easy, compact, cheap, fits in the bag, simple to make, no bits and pieces to go missing, rugged (and could be even more so, wait for my next one) only needs to handle 5 watts.

FROM THE WIA BROADCAST

26th January Australia Day Contest

After last year's successful running of the Australia Day contest, comments were in favour of making the contest a global event. There was a strong indication for distance-based scoring and the inclusion of FT8/4.

A suggested rule set was forwarded to the contest committee for their input. On agreement with the new rules, we now have the following outcome.

1. The contest is open to all amateurs worldwide on 160, 80, 40, 20, 15 and 10 meters.

2. Scoring is based on distance, calculated on 4-character grid squares exchange.

3. Phone, CW and Mixed categories with a separate digital category for FT8/FT4. a. A log can contain all modes and on submission, digital contacts will be pulled from the log and put into the digital category while also keeping an operator in the phone and CW sections.

4. WSJT-X users can operate as normal as the .adi file can be imported into N1MM logger for scoring and log creation. Make sure anew .adi file is used for the contest. As no serial number is needed, the standard 4-character grid square used during normal operation is all that'?"?'s required.

5. VKCL will not cater for this contest, so make sure N1MM logger is ready to go.

6. The User Defined Contest required to be loaded with N1MM is available from vk4sn.com under contests.

7. It is evident that a lot of operators are migrating over to N1MM. For new users a N1MM help file for this contest is available at the end of the rules. Download it from the WIA contest pages. tinyurl.com/5n88j3fn

The contest is the first Australian distance based scored and digital contest.

Best 73 Alan VK4SN

Norwegian Amateur Visits Ballarat

VK3/LA6FTA/P was recently heard calling CQ SOTA from Mt Warrenheip. Being an unusual call for regional Victoria I responded and got to speak to Gudleik. He shared that he was out here visiting his daughter and was particularly keen to make the most of the opportunity and activate a couple of SOTA summits. I suggested that if he had time he should drive over nearby Mt Buninyong, which is a much nicer Mt to activate compared to Warrenheip.

About 20 minutes later a spot appeared on Parksnpeaks, but no sign of Gudleik on air. As it's only a 5-minute drive I thought I should drive up and see if I could catch him. He had indeed set up his FT-817 at the top of the Mt but no sooner than he'd thrown the antenna up and it had broken meaning resorting to running it across the tops of the grass bushes.

Gudleik had neighbours whose son had settled in Ballarat, so he was quite keen to pay us a visit. He always travels with his radio packed, but this trip the priority had been visiting his daughter and other family business, so this was the only radio outing.

After a brief chat I zipped back home and was able to easily add a contact to the log. Unfortunately, there wasn't time to assist with a better antenna repair so I was the only contact from Buninyong, but he did qualify Warrenheip.

Mal VK3OAK

Scientists Use Laser Beam to Divert Lightning Strikes

https://bigthink.com/hard-science/laser-guided-lightning/

Scientists have filmed and measured lightning shooting off of a tower, riding up a laser beam, and discharging into the heavens above. The laser broke down the atmosphere, creating attractive paths for the bolts. This was the first successful demonstration of laser-guided lightning.

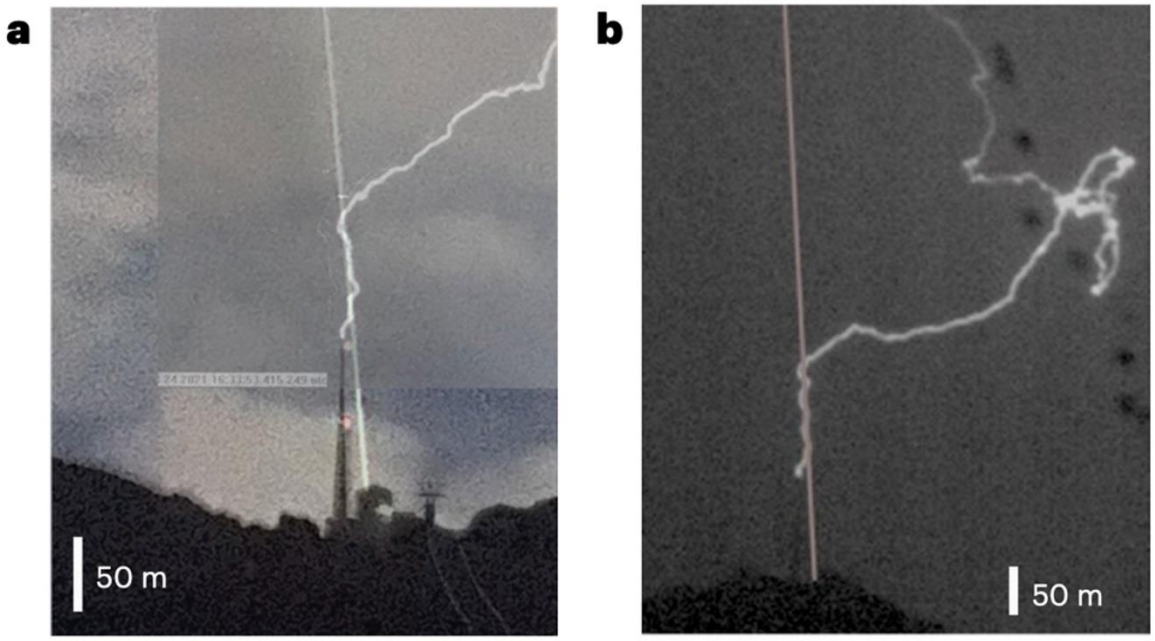


Fig. 2 | Snapshots of the lightning event of 24 July 2021 (L2) recorded in the presence of the laser. a,b, Snapshot recorded by the two high-speed cameras located at Schwaegalp (**a**) and Kronberg (**b**). The trajectory of the laser path taken subsequently in clear sky through second harmonic generation is also overlaid.

Why does it work? The power of a very large laser breaks down the atmosphere itself, creating a path for the lightning. The laser fires pulses of light, rather than a continuous beam. Each pulse carries roughly a terawatt—one million million watts—of instantaneous energy. This amount of power can only be delivered for a very tiny amount of time, about a picosecond, or one-millionth of one millisecond. You can imagine a science fiction laser blaster: the pulse is a traveling line segment, fired into the air. (The blast is about a millimetre long, would motion blur into a beam in our eyes, and is made of infrared photons, so don't picture it too literally.)

Fig. 1 | Image of the 124-m-high telecommunication tower of Säntis (Switzerland). Also shown is the path of the laser recorded with its second harmonic at 515 nm.

The huge power of the pulse decreases the speed of light in the air through which it travels. This is a nonlinear optical process: jargon for an effect that is only observed at extremely high light intensities, such as a powerful laser pulse. Power density in the pulse increases as the pulse shrinks, enhancing the effect and creating a feedback loop.

The laser pulse undergoes self-focusing:

The air itself acts like an increasingly strong lens, continually cramming down the laser power into a more intense pulse. This continues until the air is ionized: Atoms and their electrons are separated, forming plasma. Freed electrons in the plasma counteract the focusing.

Amateur Radio From The Past

The Daily Examiner

ESTABLISHED 1859. With Which Is Incorporated The Clarence and Richmond Examiner. ESTABLISHED 1859.

eries. No. 8975. 4 Pages. GRAFTON, FRIDAY, DECEMBER 28, 1945. Registered at the G.P.O., Sydney, for Transmission by Post as a Newspaper.

W CONFERENCE | Awaiting Trial | To Discuss

Amateur Radio Transmitters

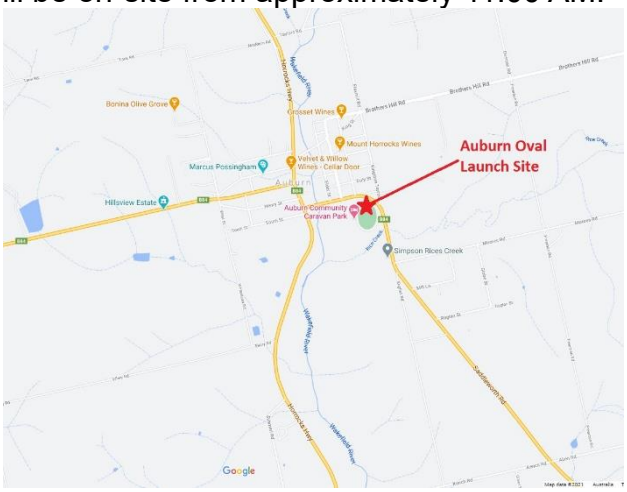
SYDNEY, Thurs.—The Chief Radio Inspector has invited amateur radio experimenters to lodge applications for the re-issue of transmitting licences, which were cancelled during the war. Vital transmitting components which were confiscated for safe keeping during the Jap threat have been returned to the owners.

Contributor; Colin VK3NCC

Southern Hemisphere Space Studies Program 2023
Balloon Launch Saturday 28th January 2023

AREG is pleased to once again be involved with the International Space University's Southern Hemisphere Space Studies Program (SHSSP) hosted by the University of South Australia. This year one balloon is being launched from the Auburn Community Oval as part of the program.

Launch is planned to occur around 12:45PM on Saturday the 28th of January. Launch crews will be on-site from approximately 11:00 AM.



All amateurs across the state are invited to participate in the flight through collecting the 4FSK telemetry. All you need is an SSB receiver on 70cm, and an interface to your computer. The rest is software!

Primary Telemetry – 434.200 MHz

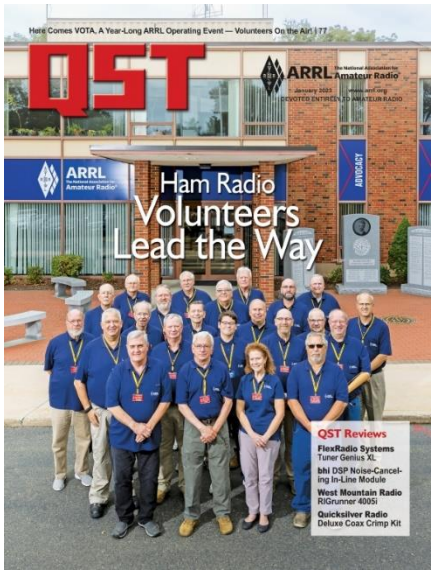
Reprogrammed RS41The primary tracking telemetry will be transmitted on 434.200 MHz using the Horus Binary 4FSK data mode. Amateurs in the Adelaide and Central SA region are also encouraged to get involved with the flight through receiving and uploading flight telemetry from our 70cm band tracking beacons. Every piece of telemetry data is valuable to the flight tracking and recovery teams so if you can help join the distributed receiver network to collect that data you will be making an important contribution to the project!

https://github.com/projecthorus/horusdemodlib/wiki/1.1-Horus-GUI-Reception-Guide-(Windows-Linux-OSX)

For more information;

https://www.areg.org.au/archives/211296?fbclid=IwAR3dfwuop7ykkGGs9QYAD6z55KLS5DTXAH9RMYJ3psX3rck7wlM6ST9-aD0

QST JANUARY 2023 Review



Welcome to the new year.

P4 Contents

P9 Second Century. Looks at the year of Volunteers.

P13 Spotlight: Dr Joseph Hooton Taylor. Jr. K1JT Well known for his weak signal development software since 2001. Starting as a youngster with crystal sets [what in hell are they?] to building one valve radios and onto radio astronomy and hitting the moon with signals in the 1950's without success. Later while looking at Pulsars and writing software for their measurement he developed the now world famous WSJT and WSJT-X suite that has many amateurs now using FT8, FT4, JT9 et al. Still active today on air daily.

P20 Upfront: Try a paddle key between a pair of dollar coins using small micro switches. Fascinating.

P24 Letters covers …CW op with the Glass arm. [Carpal tunnel} Twisted wire or flat Ethernet and NO packet of data. ? Testing the Lamp cord J Pole antenna.

P30 More radial Configurations for Elevated Four Square array. Also see QST April 2022.

P35 Switch selection Power Pole ports.

P37 A 2 Meter Glove antenna for portable ops.

P40 Review: Flex radio Tuner Genius XL.

P44 Review: bhi DSP Noise cancelling Line module.

P47 Review: West Mountain Radio RIGrunner 4005i

P50 Quicksilver Radio Deluxe Coax crimp kit. Good value read.

P52 Ask Dave responds to COAX FOR RECEIVING, Antenna SWR affects, Window line against Coax, and does a DC ground mean its good for RF ground use.? www.youtube.com/davecasler askdave@arrl.org

P54 Antenna Switch. Magnets to slow down key speeds, Ideas to place BNC connectors in a larger hole.

P56 Microwave lengths: Do we need a mountain top for extended range micro service working.?

P58 Construct a simple Radio carrier for emergency use and using a radio on a boat/.

P60 Interested in a CUBEST project? See what a STEM group did. www.sites.google.com/view/ramsat/home

P63 Week long POTA adventure and what can go wrong. www.parksonair.com Learn some new ideas from other fails.

P66 Student radio contact with the International Space station. P69 AUSTRALIAN RADIO AMATEURS MAY MOVE to a CLASS LICENCE STRUCTURE. A little bit behind the fact now so wait till the 1st July and see what happens.

P76 BOOK REVIEW: Not our normal cup o tea but it is a true story about an amateur, now SK who was posted to Russia during the Cold War to discover who/what was leaking US secrets to the Russians since 1946 at their embassy. A 288-page book via AMAZON called A Spy in Moscow Station. By Thomas Dunne.

P80 Club Station. Making the switch over to Computer Based licence exams.

P82 Ham Radio crash course. A club or personal mentor versus the You Tube way.?

P84 How's DX: Crozet Islands. To be active from Dec 2022 to around 26Mar 23 [FT#T] then a short stop to Kerguelen Is [FT#X] Amsterdam Is [FT#Z] finish at Reunion Is around 16 Apr2023. This will be a single man activity and hopes to activate 30,20,17 and 15M although 40 and 80 may prove worthwhile. http://crozet2022.r-e-f.org

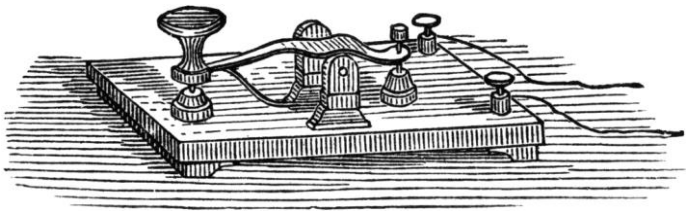
P86 World above 50Mhz. Band openings to the US from areas in southern Americas during December. Anticipation during Solar cycle 25 continuing that more such workings will occur. www.qrz.com/db/7Q6M The use of various beacons will assist. 50.060 to 50.080 and 144.275 to 144.300. 50.313 can be observed for WJST users.

P 91 Looking back at QST. Feb 1973.
Build a TransMatch for QRP rigs.
Twin paddle made from surplus straight keys.

98 Classic radio. The ATLAS started in 1974 by Herb Johnston W6Qki sk. [see also QST May 2022] The company closed in 1994 and Johnston died in 2000 at 79yrs.
An audio review of the the article available at www.arrl.org/qst-in-depth

100 QST Index from Jan 1923, Jan 1973 and Jan 1998.

126 Index of Advertisers in this month edition.
The end for January.



Lo-Key DECEMBER 2022 Review

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P4 President's Notes
P6 Facebook Update. Over 300 members
P7 Club News. 10-year, 20 Year and 30 Year Club.
P9 Treasurers Report.
P12 Rules for The Max Brunger Awards for Best Technical Article.
P10 Announcement of The Max Brunger Awards for Best Technical Article for 2022. Congratulations to Terry Dawson, VK2KTJ.
P15 QRP Hours Contest October 2022 results and Soapbox.
P19 Separate receiving Aerials for 30M and below.
A method to reduce local noise floor or unwanted signals.
P24 Member Classifieds. Kenwood TS-440SAT, TenTec 539 Argonaut VI.
P25 Chris-Crossword.
Back Page. VK5WAT activation, October 15th, 2022, VK3YE photos.

Silicon Chip January 2023 Review

P12 Computer Memory, Part 1. Delves into the history of memory for computing that we nowadays take for granted. Starting with punched card and punched tape.
P27 Review eBay, 2W RF Amplifier & Wattmeter. 1MHz to 930MHz, with schematic and some test results.
P30 Q Meter. A brief history of development and operation of a Nano controller based measuring device.
P40 How to build a Mini-ITX PC. A smaller formfactor computer with more power than a laptop for portable operation.
P50 Raspberry Pi Pico W BackPack. An upgrade to the Pi Pico BackPack with WiFi and 3.5-inch touchscreen. Along with sample code to test and use the display.
P58 Active Sub-Woofer, Part 1. Designed for use with the Active Monitor Speakers from Nov-Dec Silicon Chip 2022. Ideal for home theater application. Plans for the cabinet and assembly.
P68 Magnetic Amplification. Using a magnetic circuit, rather than active devices to control a transformers output voltage. Uses two transformers, potentiometer and two diodes.

P76 Circuit Notebook. Noughts & Crosses game using two modules, using Arduino UNO and Adafruit TFT LCD display. Midi Toolbox, using Micromite LCD BackPack and a USB host controller.

P80 Noughts & Crosses Machine, Part 1. Uses only logic gates, with illuminated display and a unique Input/Output system. A comprehensive discussion on the hardware and input method.

P90 Vintage Radio, UDISCO L6 Radio, 1926, 27. A six valve TRF receiver with schematic and advertising literature of the time designed in Australia.

P96 Serviceman's Log. Repairing two devices, new with similar and simple solutions. LCD TV backlight repair and a series of battery charger problems.

P105 Ask Silicon Chip. GPS clock, Pi Pico BackPack touch not working, Amplifier Clipping Tester, High Power Ultrasonic Cleaner, R80 Aviation Receiver, Sensing pieces on a chessboard. SC200 and SC480 Amplifiers, Classic DAC.

DIYODE January 2023 Review

P9 XIAO RP2040 Review. Code and example project to use this new module with a convenient Tri-Colour LED. Joystick and 7 Segment Display applications.

P20 Weather Balloon, New Heights. A year 10 student discusses and shows the development of a High-Altitude Weather Balloon, which he hopes to release soon.

P31 Power Profiler Kit II, Current Monitoring Power Management Evaluation Board. With 8 digital and one current logger input and Bluetooth connectivity.

P40 EZ-ATX Workbench PSU. An upgrade to using an ATX power supply for 3V3, 5V, +12V and -12V outputs. This is an addon unit the provides a voltage and current readout with the inclusion of programmable electronic fuses for each output.

P58 DIYSTABLE / DIYLATCH. Using LM555 configured as Astable and Single Button Latch.
A PCB and how to build and calculated component values.

P70 Fundamentals of Circuit Protection. Reverse current protection to Overcurrent protection basics.

P81 Sauce IT. Arduino based Automatic Sauce Dispenser. A handy kitchen assistant that can dispense various pre-recorded sauce recipes with the click of a button and controlling 4 pumps to provide the correct ingredient and volume.

P86 Kids' Basics, Motor Speed Controller. Using a CD4093, TIP41C and some resistors and capacitors you can make a basic PWM motor controller. The example project is making a paper plane launcher.

It is possible that someone borrowed and forgot to fill in the loan book in the library so that's why we can't account for a copy. Thanks. Craig VK3KG

MISSING MAGS ARE:
QST,s for...2022Jan, Mar and Apr. 3MAGS.
2021. Jan, Mar, Apr, May, Jun,July, Nov, Dec. 8 mags.
2020. All missing EXCEPT. Mar, Jun, and July. 9 MAGS.
2019. Feb, Mar, Aug, Sep, Oct, Nov. 6 MAGS.
2018. Mar, May, Jun, Jul. 4 MAGS.
There are still some gaps in earlier years but I haven't as yet checked the loan book that far.
There are still a few books out as well going back some time and could come home again.