



Illawarra Amateur Radio Society

# Propagator March 2022

## Upcoming Meeting on the 8<sup>th</sup> March 2022

If the COVID19 conditions and restrictions for NSW do not change

The next meeting **will be at the** Blue Scope Steel visitors centre 7.30pm.

Blue Scope Northgate entrance off Springhill road



## THE FOLLOWS A COVID19 SAFE PLAN

There will be distancing and preventative measures still in place with hand sanitisers available for use, please adhere to info below as a minimum.



**Wash your hands  
regularly**



**Avoid contact**



**Keep a safe distance  
of at least 2 metres**



**Avoid touching  
your face**



**Cough or sneeze into  
the crease of the elbow  
or in a tissue**



**Stay at home if  
you are ill**

## Our last meeting 8<sup>th</sup> February 2022

Due to Covid19 restrictions the planned meeting at the Blue Scope Steel visitors centre was cancelled and presented on air, 146.850MHz.

### Attendees for the meeting were

Rob VK2MT , club president  
Rob VK2XIC, club vice president  
John VK2EJL, club treasurer  
Keith VK2KQB, club secretary  
Simon VK2KU  
Simon VK2XQX  
Mal VK2DXM  
John VK2CMO  
Ian VK2ZIA  
Ned VK2AGV  
Steve VK2BGL  
Tony VK2TS  
Bruce VK2MBD  
John VK2AAL  
Daniel VK2FDSD  
Max VK2ARZ  
Maurice VK2MGH

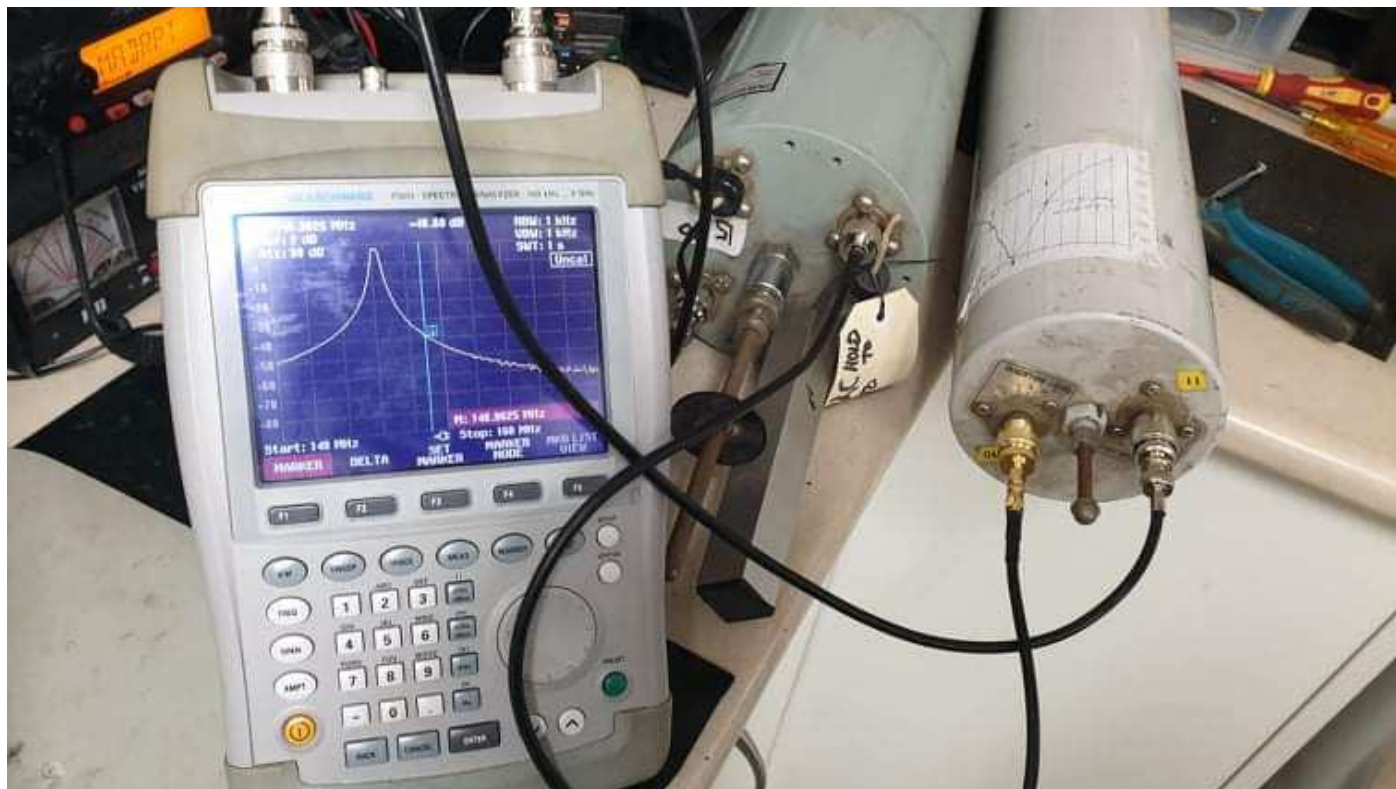
The IARS committee would like to thank everyone that joined us for the evening.

### IARS on AIR “MINI” presentations

1. Simon VK2KU DMR update. Simon has been in touch with VKDMR, the unit is configured and is visible on the DMR network. Have spoken to Doug VK2XLJ to adjust the TX and RX levels on the repeater. Dashboard working well and just finalising the actual input. The DMR repeater will be connected to a 4G modem to potentially have ethernet ports for other equipment at the repeater site. There will be talk groups with time slots 1 & 2. There are testing parrots on time slot 2, this is important for testing and checking continuity. The most important thing is to ensure that all handhelds will be able to connect into the system. Very close to install just want to make sure that the system will be 100% operational before install.



2. Rob VK2MT, Maddens 146.850 repeater cavity upgrade to fix pager overloads into the system. The new fire department pager operating at 125Watts at a frequency 149.675MHz. Unfortunately, the antenna of the 146.250 input into the repeater is very close causing de-sense. The best option for us was to install some spare cavity filters. These were taken by Rob VK2MT and Simon VK2XQX to Keith's VK2KQB workshop where they were setup using a R&S FSH3 Spectrum and TG. After the setup Rob VK2MT and Simon VK2XQX returned to Maddens to install these filters. There seems to be a 95% improvement with only very weak signals interfered with.



Rob MT and Simon XQX setting up the cavity filters

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Snowball raffle was not actioned at the last meeting, it will start again at the 8<sup>th</sup> March meeting

**NEXT MEETING ..... 8<sup>th</sup> March 2022**

**SDR**

**SIMPLY DEVINE RADIO?\*\***

**\*\* (For some AR enthusiasts 🤖, but most of us know it as Software Defined Radio)**



Mal VK2DXM and Shane VK2HCO will be presenting this interesting aspect of amateur radio.

Some say this will be the new way moving forward, I do tend to agree as many of the new rigs hitting the markets have SDR front end (hybrids) or are complete SDR based from beginning to end, even though they operate as if they are the old style rigs.

From a \$10 SDR dongle that plugs into your PC to a full-blown rig worth thousands of dollars, SDR may be the next AR “Thing”

If you are interested in this subject or are looking at purchasing a SDR system, pop along to the Blue Scope Visitors centre on the 8<sup>th</sup> March 2022 for a great evening.

There will be refreshments like tea and coffee with biscuits and cake.

IC-9700  
VHF/UHF/1200MHz  
SDR Transceiver



IC-7300  
HF/50/70MHz  
SDR Transceiver



IC-7610  
HF/50MHz Dual Rx SDR Transceiver



SDR Transceiver Yaesu

*SEE YOU THERE!!!!!!!!!!*

# SNOWBALL

Will be back 😊, for \$5 you can earn some good cash and all monies go to your society, win-win.

As usual see Simon VK2KU, the fella with the coloured balls and big smile



Don't forget the two weekly IARS nets as below



to the IARS NETS



IARS Tuesday evening weekly 80m NET on 3.666MHz at 8.30pm hosted by Mal VK2DXM and Rob VK2MT

Don't forget to join us every Tuesday evening, expect the second Tuesday of the month for a great get together on 80m. Signal reports, news and general discussions are the agenda.

There have been some really good conversations so if you are bored on Tuesday evenings, pop in for a chat.

Saturday Morning EAST COAST NET hosted by Steve VK2BGL

You are invited to join Steve every **Saturday at 9.30am** on our **146.850MHz** repeater (linked to 146.675MHz) or **VK2BGL-R** on Echo-link for a very enjoyable morning of general discussions from amateurs who log in from all over the world.

This NET is linked to multiple repeater systems including VK2RFS south coast. Join Steve and everyone for a very enjoyable 2 hours on Saturday morning



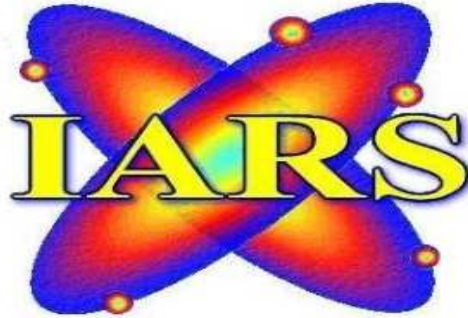
**Looking to Upgrade to Standard or advanced and even obtaining your Foundation license during Covid lockdowns we have remote assessing available.**

The IARS **can help** with obtaining your Foundation, upgrading to Standard or Advanced from *the comfort of your own home*. We have approved AMC accessors that can offer remote assessments for the AMC. Please contact Keith VK2KQB at [iars.keithb@gamil.com](mailto:iars.keithb@gamil.com) for further information. Your society supports further learning, please find out more on how we can help you. AMC website is [Australian Maritime College - Australian Maritime College | University of Tasmania \(amc.edu.au\)](http://AustralianMaritimeCollege-AustralianMaritimeCollege.UniversityofTasmania.amc.edu.au)

# REPEATERS



**VK2RUW (Knights Hill)**



**VK2RMP (Maddens Plains)**

## STATUS

- 438.225 with a - 5MHz offset. **Back on air OK**
- 146.975 with a -600kHz offset NO CTCSS, C4FM enabled **OK**
- 146.850 with a – 600kHz offset (linked to 146.675) NO CTCSS **OK**
- 146.675 with a – 600kHz offset (linked to 146.850) NO CTCSS **OFF AIR**
- 53.650Mhz with a – 1Mhz offset 123Hz CTCSS (or key PTT 5 times to open squelch) **OK**
- 438.725Mhz with a -5mHZ offset DMR only **on site soon**
- 1296.850Mhz Beacon with simplex repeater function – **OK**

**The IARS welcomes any feedback on our repeater systems.**

**Please send all your feedback to [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com) and it will be passed on to our repeater team.**

Any donations to help us maintain our great repeater system will be greatly appreciated. Please check our banking details on our website at [www.iars.org.au](http://www.iars.org.au) under the Contact details page.

As reference of the donation please add your Call sign and the words "Repeater Donation"



## LOOKING FOR SOMETHING to SWAP, BUY, SELL, an OLD PART

Parts you may need for repairs or some radio gear you no longer need that could go to a new home.....?

Email [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com)



### RigPi MFJ1234

see link > <https://mfjenterprises.com/collections/rigpi/products/mfj-1234c-rigpi-remote-station-server>

Rob VK2MT is looking to part with a RigPi remote station server, never used.

This unit has all the bells and whistles Contact Rob VK2MT on 0408480630 to discuss

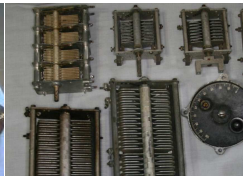
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### Kenwood TS-520

Les VK2ALK wants to send his TS-520 to a good home. This rig has been well looked after and has the original box and manuals. This rig is in very good condition. You can contact Les on 0438422888 or [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com)

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Coils, capacitors and tubes for free to a good home. Les VK2ALK has a huge collection of old coils, capacitors and tubes to giveaway. Please contact Les on 0438422888 or [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com)

to discuss.



## *Disposables Donation Table*

Each meeting we have the disposables table with items donated to the club.

Please keep the support for this going and bring oddities in and take some home for a small donation to the IARS. With the next meeting please bring along and donate those old items that you no longer use and may even have thought about throwing it in the bin, someone else may be looking for that very part. Wire, pieces of coax, old parts, plug packs, power supplies, capacitors, resistors, coils, tubes, knobs, anything that someone can use.



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**Share it with us, this could be suggestions, technical ideas, circuit diagrams, IARS community projects, pictures of your latest shack project, in fact ANYTHING of interest**

Let us know by return email or [secretary@iars.org.au](mailto:secretary@iars.org.au)

**Also, if you have some IARS related pictures or information that we can put on the **IARS website**, please let us know and we can get that happening.**

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## *HF all bander Vertical Antenna rebuild*

A recent run in with the neighbourhood cockies who were intent on having carnival rides on my TEV-1 Tet Emerton aluminium vertical, unfortunately bent the antenna to a point where it was no longer possible to straighten it without looking like a deformed banana.

Cracks started appearing in the tube as this was the third time I had to repair the damage caused by the feathered monkeys joy ride. As the cockies are a part of our lives I had to think alternatives. Replacing the \$200 antenna every 2 years was not an option.



Banana shaped vertical 😊



The TEV-1 antenna is a great vertical and I have RT 600 remote antenna tuner mounted right under the feed-point  
4:1 balun (RT600)



Although this antenna is not rated for 80m, I used it often with great success however, 160m was not an option.

With the help of our feathered friends, I was left to make a new Cocky proof vertical, also had to be wind proof and make sure the UV would not damage it. After a couple of weeks pondering, I found an old Spider beam 12m squid pole in the workshop.

There was not much information about the effects the actual material would have if I ran a conductor down the middle, and to calculate velocity factors and performance was a “aint nobody got time for that”, the solution, put the calculator away, put up the antenna and test the thing 😊.



Spider beam 12m

After installing the feeder in the middle, the total length was a random 11.5m of vertical wire. 3 meters longer than the previous TEV-1 vertical antenna. Keeping the 4:1 balun and RT600 in place it was all go.

With a SWR avg about 4:1 (without the RT600), the RT600 managed to tune it up on all bands, even 160m to SWR of less than 1.5:1. The RT600 is right at the base of the vertical, therefore the coax feedline losses were minimal at 1.5:1. Having matching units right at feed point is the best place to be, not always practical but instead of an automatic matching unit in the shack, remote matchers improve overall efficiency and minimise feeder radiation.



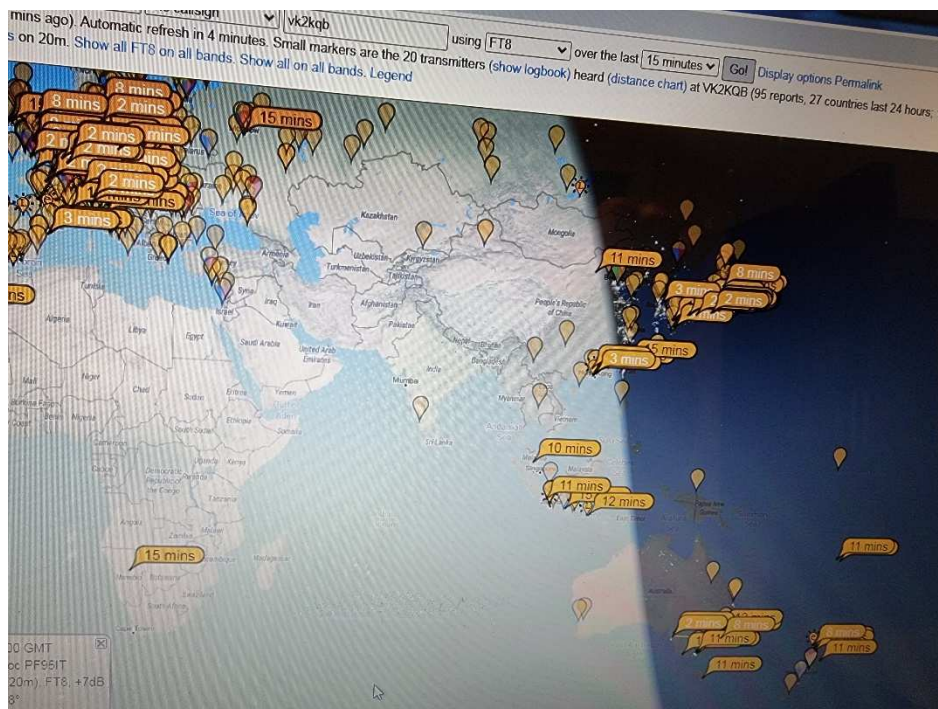


*New 12m Vertical spider beam mounted right on top of the tower*

After some very early testing it looked promising with the antenna operating without the RT600 on 6m, 10m and operating with the RT600 all the way down to 160m.

### *The magic of FT8 and PSK reporter*

The vertical performance was confirmed when I used FT8 with the PSK reporter system. Even if you are not into digital, it is a fantastic tool to check the propagation and the performance of your system. It was my very first log to a South West African station. So far, I see no reason to change my temporary vertical with excellent signal reports around the world. Lets hope the cookies have fun on their new toy, without breaking it this time 😊



*Snap shot of PSK reporter with signal reports*

*Story shared by Keith VK2KQB*

Please send your ideas and tech stories to [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com) so that we can publish them in upcoming editions.



## Upcoming events .....



### *John Moyle Memorial Field Day*

This Field Day will be held over the weekend of the 19th-20th March 2022 and run from UTC 0100 on the Saturday to 0059 on the Sunday.

Don't forget that the IARS participates every year from our remote club location at Penrose/Bundanoon. If you need any further information contact Simon VK2XQX Simon Ferrie [simon.ferrie3@det.nsw.edu.au](mailto:simon.ferrie3@det.nsw.edu.au) or [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com)

We have had some great times at the Penrose site so please come along for a most enjoyable weekend of radio fun

For more information about the contest rules, go to the WIA at <https://www.wia.org.au/members/contests/johnmoyle/>

Last year's John Moyle weekend, IARS Penrose get together



Even though we only came in third in our category, we got first place for a great weekend. This year, let's get first place in both categories

# Sydney Amateur Radio Ferry Contest

Club: Waverley Amateur Radio Society Callsign: VK2GZ

MARCH 6 2022 Sunday

Enjoy the day in this annual event which allows you to roam Sydney Harbour contacting other operators on the water and foreshores. Special Covid rules will be in force this year offering a chance to compete in a number of categories. More details <https://vk2bv.org>

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MAYDAY MAYHEM

**The CCARC have kept the date for the Wyong field day as the 1<sup>st</sup> May 2022**

This is always a great outing with plenty of goodies to be purchased on the day, also, great for those that want to lighten the load in the overcrowded shack, bring along your unused goodies for sale, even the stuff you bought at the Mayhem field day last year 😊

For more information please visit the CCARC website at <https://www.ccarc.org.au/mayham-2/>

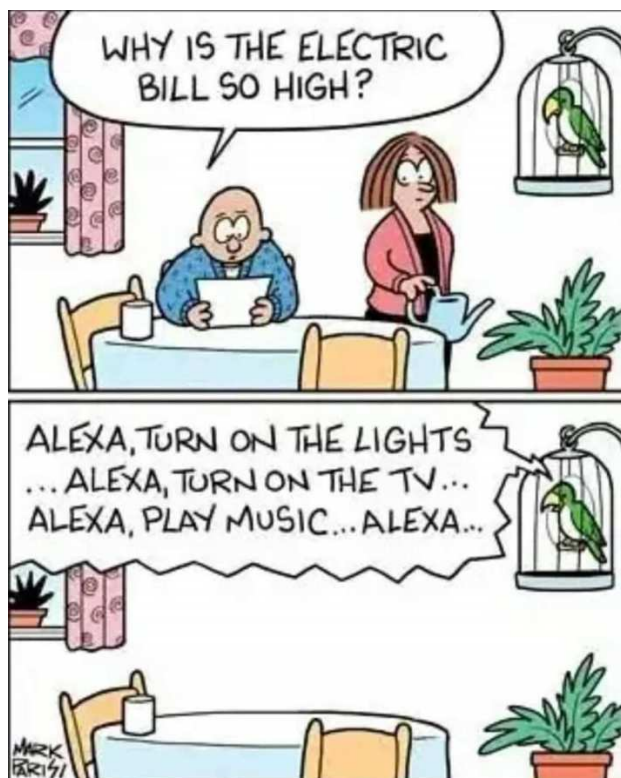
## Upcoming meeting presentations .....

- April 2022 : Paul VK2PAD to give a presentation on his Antarctic Experience, Paul had a very successful remote HF station setup and many QSO's into VK.
- May 2022 : Homebrew telescopes, making your own \$10000 scope, for much less, Ned VK2AGV
- June 2022 : Microcontrollers for amateur radio projects, Simon VK2KU and Keith VK2KQB. How to select, configure and program those micros that can make your next project easy
- July 2022 : Allen Bloomline with Ned VK2AGV
- August 2022 : IARS AGM , Show and Tell



## Fun Corner

Please send in your funnies to [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com)



"Welcome back, sir. Are you planning on being our guest for one night only, or will this be your usual extended stay?"

A very funny video link sent in by Doug, worth the view 😊 <https://youtu.be/fLC3lryWriQ>

That's all for now, hopefully catch you all at the **Blue Scope visitors centre on the 8th of March 2022**

Stay Safe

**73's**  
**Keith VK2KQB**  
**IARS Secretary**

**IARS, Amateur Radio in the Illawarra since 1948**