



Illawarra Amateur Radio Society

# Propagator JUNE 2021

## Upcoming Meeting on the 8<sup>th</sup> June 2021

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.



# Our last meeting 11<sup>th</sup> May 2021

## IARS Repeater systems past, present and future

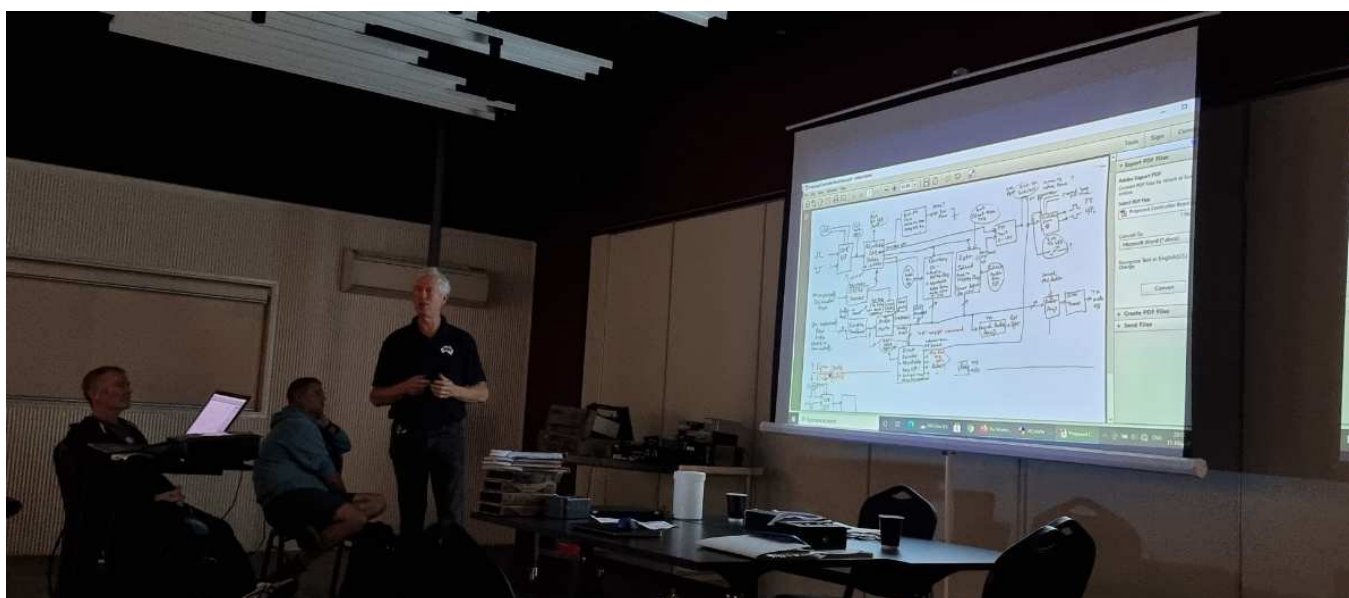
The IARS had a very informative and interesting presentation at the last meeting with presenter Rob VK2MT. Rob has been an integral part of our repeater systems for decades and one can say he is part of the equipment. Many IARS members have contributed to the network through the years but Rob has always been there and still is today.

We were taken back in time where the pictures reminded everyone of days gone by, where you would take your whole family to the repeater site for a BBQ, BEER and CAVITY TUNE UP, (We hope they tuned the cavities before the beers 😊)

The way the linking system operates is very impressive with many of us surprised at the amount of work that goes into the upkeep of our repeaters.

Rob showed us the single line diagram of the current control system and with the future project, a new control card with all the bells and whistles.

A very big thanks to Rob and his team for all the hard work through the decades and showing us the behind-the-scenes footage.



**The SLD of the amazing controller currently used in our systems**

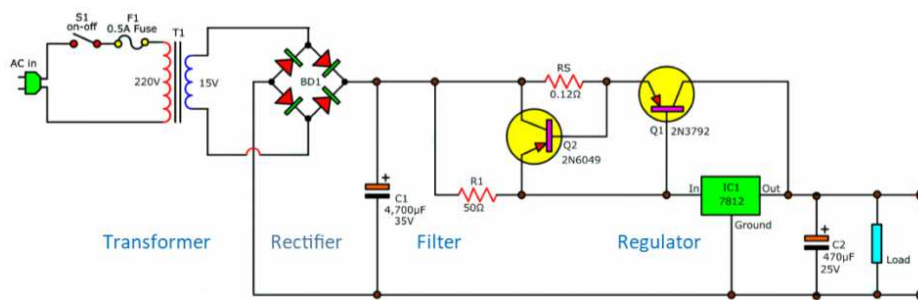


We all enjoyed the presentation very much, including the coffee and biscuits

**Thank you Rob, a great presentation**

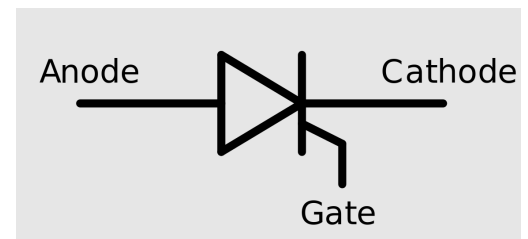
# NEXT MEETING .....

## Power supply systems, Keith VK2KQB

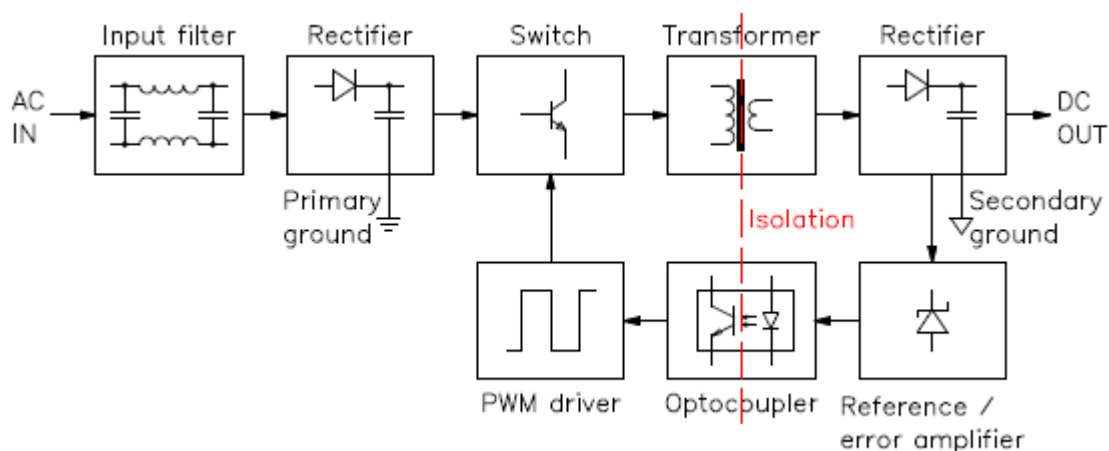


As an amateur operator and working in the power engineering sector, I can construct the best possible solutions to my power requirements. However, I ended up with a very simple system that did not need to be over the top.

There are many ways we can use our existing junk in the box at the back, to build up a quick and easy regulated power supply including reforming capacitors. Protection circuits including a simple inexpensive crowbar for those dreaded series pass destructive failures and better use of the “Poly switch”.



We will also be looking at using the dreaded word “**SWITCHING**” power supplies very successfully, yes, with NO NOISE 😊  
How to convert your power supply to charge batteries (VRSLA or Li-Ion) and look after the radios as well.



I hope to share some of the knowledge and experience I have gained over 40 years in the power industry and hopefully dispel some of the myths around power supplies.

Same as the previous meetings there will be tea, coffee, biscuits and perhaps even some cake 😊

**Looking forward to seeing you all there on the 8<sup>th</sup> June 2021**



# SNOWBALL

The SNOWBALL was back in action with a no winners this time around, that can only mean one thing. MORE CASH for you to win at the next meeting, make sure you are in it to win it.

Please be a part of this fundraiser which can get you some cash in a hurry. You will need to be a IARS member to participate, if you not then speak to John VK2EJL on the night and he will be more than happy to fix you up.

**Simon VK2KU, the good looking fellow with BALLS will book you in for \$5**



As always all monies received goes straight back into your club for your enjoyment 😊

**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. All you need is 1 x HF rig, Piece of wire + tuner, good cuppa and good chair.

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

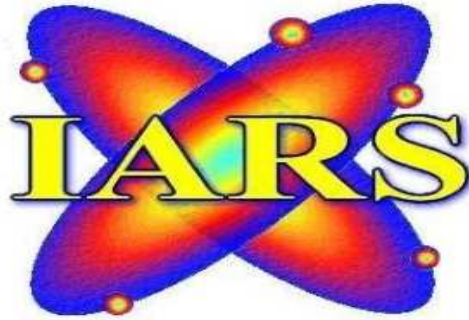
Saturday Morning EAST COAST NET hosted by Steve VK2BGL

You are invited to join Steve every **Saturday at 9.30am** on our **146.850MHz** repeater (linked to 146.675MHz) or **VK2BGL-R** on Echolink for a very enjoyable morning of general discussions from amateurs who log in from all over the world. This is a great net which is growing in popularity due to the wide range of subjects that get discussed.

# REPEATERS



VK2RUW (Knights Hill)



VK2RMP (Maddens Plains)

## STATUS

- 438.225 with a - 5MHz offset. **Currently off air due to local interference at the repeater site, working on a solution**
- 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 **OK**
- 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 **OFF AIR due to upgrades and improvements**
- 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) or [secretary@iars.org.au](mailto:secretary@iars.org.au) 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.**

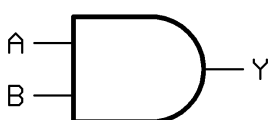
**As reference of the donation please add your Call sign and the words “Repeater Donation”**



## Looking to Upgrade your Foundation or Standard licence?

As mentioned previously, let 2021 be the year. The IARS has two options, Ted VK2ARA who is our club tutor and the Radio and electronic school or both 😊. Your society supports further learning, please find out more on how we can help you.

We also have approved AMC assessors and can get your upgrade fast tracked. Please email [secretary@iars.com.au](mailto:secretary@iars.com.au) or return email if you wish to receive more information on how the IARS can help you achieve this goal in 2021.



**BUY..SWAP..SELL..GIVEAWAY**

## 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 [secretary@iars.org.au](mailto:secretary@iars.org.au) or [iars.keithb@gmail.com](mailto:iars.keithb@gmail.com)



We Have access to vacuum tubes (Smaller type not high-power output). So, if you are in need of a valve, send the details to [secretary@iars.org.au](mailto:secretary@iars.org.au) and we will see if we can help you 😊 (free to IARS members)

## *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.



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

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.**

### ***This month's story by Rob VK2XIC***

**The use of baluns, we sometimes forget how important and simple they are to make and use, with some added tips on portable quickie antennas.**

On 26<sup>th</sup> April I was enjoying the bright sunshine as I walked by the Lake, I thought this weather is the type of weather to be out activating a national park. I had a look back to find the log when I was last in Budderoo, to my surprise the last such log was in 19<sup>th</sup> October 2017. There was only seven entries covering 2M and 70cm there was a mixture of modes such as FM and C4FM, One of the stations, Dave VK2AWZ as a part of the contact I sent a C4FM picture. This is something like SSTV.

After reviewing the weather forecast over the next few days, I planned to go out on the same day of Bob VK2BYF, who had published he would be operating a schedule starting at 23:00 UTC 27 April 2021 (09:00 EST (NSW)).

Malabar Hill SOTA summit VK9/LH-004 7.090MHz and also Lord Howe Island Park VKFF-0295 operating on 40M Band on 7.090MHz or 7.144MHz.



I loaded my Land Cruiser with my Kenwood TS2000, and a home brewed 40 Meter dipole which had a 1:1 balun, as the impedance of the dipole and the coax are so close, it was easy to have a SWRV of 1:1.

To support the dipole at the centre I used a 9-meter-long squid pole as shown below.

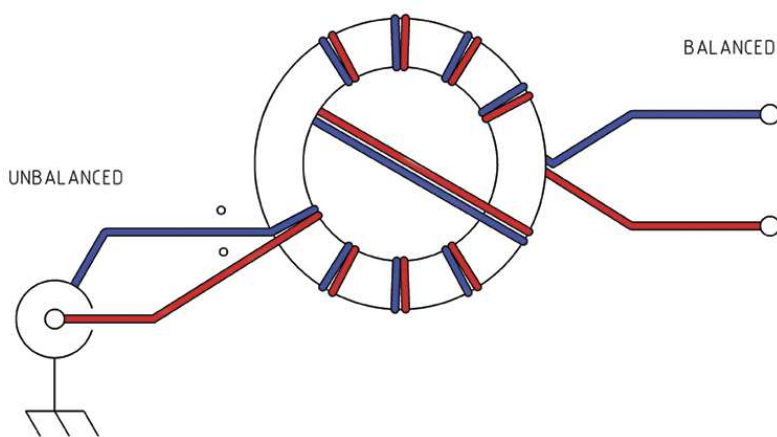


The ends of the dipole were set up to be about **two meters above the ground**. The first half of the time I was there, I operated on 7.144 MHz using 10 Watts, for the second half of the time I operated on 7.150 MHz and used 20 Watts. I receive very good reports such as 5X9 from Martin VK2VOM at Urana. The lowest readable signal was from Adrian VK5FANA of Moonta South Australia, he was a readable 4X1. The only Park to Park station I worked was Darren VK3AWA who was at Holey Plains State Park VKFF-0758, located a little south west of Sale Victoria.

In all I worked four states and logged 31 stations which have been uploaded into the VKFF (VK2) National Parks Data Base.

Below is some more information on possible builds of aerials for portable operation such as National Parks or SOTA operation.

**A toroid core from J-CAR the largest they have, they come in packets of two to a packet.**

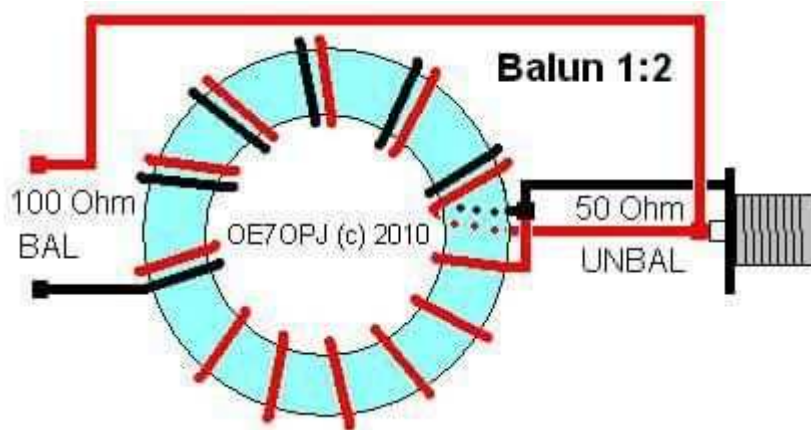


To set up as a portable station I have used a **1:1 Balun at the top of the coax cable**. In the portable operation simple speaker wire split a part to the desired frequency length works very well, it is an advantage to have an ATU to twig things.

Also, with the spare toroid you can make a 1:2 Balun, because you can make a dipole from speaker wire. Measure out the dipole for 20M and use a quarter wavelength of the unsplit wire as a feed from the centre of the dipole to the 1:2 Balun. The speaker wire in the manufactured form, not split when used as a feed line for the dipole, is close enough to 100 Ohms with the use of a 1:2 Balun does the job, and if a bit of a touch is needed then an ATU does the trick.



Here Is a 2:1 Balun.



This Balun can be used as an Unun for a quarter-wave vertical. Eg on the car, or portable like the others.

73 Rob VK2XIC

Thank you Rob for sharing this with us.

## Upcoming events .....

### Wyong Field Day this Sunday the 30<sup>th</sup> May

30<sup>TH</sup> MAY 2021



**MAYHAM**

More info go to the link below

[www.ccarc.org.au/category/wyong-field-day/#:~:text=The%20club%20wishes%20to%20announce,fresh%20date%20and%20new%20name.](http://www.ccarc.org.au/category/wyong-field-day/#:~:text=The%20club%20wishes%20to%20announce,fresh%20date%20and%20new%20name.)

There will be a table at the Wyong field day selling the donated equipment with all proceeds going to support your society.

## Noise canceller presentation

If you missed last month's presentation, DON'T STRESS!!! . We have some very good news and happy to advise that Simon VK2KU will be presenting his super-duper unit at Wyong, make sure you are there.

## VK Shires Contest

START TIME 00:00 UTC 24 Hours Saturday 12th June 2021  
Ends: 23.59 UTC Saturday 12th June 2021

<https://www.wia.org.au/members/contests/wavks/documents/Contest%20Rules%20VK%20SHIRES%202021.pdf>

## Trans Tasman Low Bands Challenge

Next contest - 17 JUL 2021

The Trans-Tasman contest, held on the 3rd weekend in July, aims to encourage Low Band activity between VK and ZL  
<https://www.wia.org.au/members/contests/transtasman/>

Only contest bands 160 80 and 40M are allowed with SSB, CW and Digital (RTTY OR PSK)

## Winter VHF UHF Field Day

The next VHF UHF Winter Day will be held 26<sup>th</sup> and 27<sup>th</sup> June 2021.

The overriding aim is to get away for the weekend and have fun!

But next after that, the aims are to encourage more activity on VHF and microwave bands;  
to encourage people to work greater distances than usual by operating portable, and  
to provide opportunities for people to activate or work into new grid squares.

Further information on WIA site, <https://www.wia.org.au/members/contests/vhfuhf/>

## International Lighthouse Lightship Weekend.

00.01 UTC 21st August to 24.00 UTC 22nd August 2021 (48 hours) ... 7th as their National Lighthouse Day and during that first week in August

<https://illw.net>

There may be a opportunity for the IARS to have a joint lighthouse weekend with the MSCARC.  
Rob VK2XIC has advised that the MSCARC had booked lighthouses for the lighthouse weekend.  
If you are interested in taking part in this contest **please contact Rob VK2XIC** [vk2xic@wia.org.au](mailto:vk2xic@wia.org.au)

## Remembrance Day Contest

**Next contest 14th & 15th August 2021**

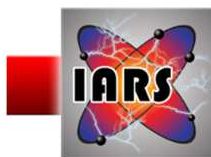
This contest commemorates the Amateurs who died during World War II and is designed to encourage friendly participation and help improve the operating skills of participants. It is held on the weekend closest to the 15th August, the date on which hostilities ceased in the southwest Pacific area. A perpetual trophy is awarded annually to the Australian state or territory with the best performance. The name of the winning State or Territory is inscribed on the trophy, and that State or Territory then holds the trophy for 12 months. The winning State or Territory is also given a certificate, as are leading entrants. <https://www.wia.org.au/members/contests/rdcontest/>

## Contest scoring

In case you are unaware the scores achieved by you, in each contest you submit logs they are added to the **WIA Contest Champion list**, which can be checked out on the WIA site, <https://www.wia.org.au/members/contests/contestchampion/> . If nothing else have a look at the performance the members of the IARS is like.



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Illawarra Amateur Radio Society

*Amateur Radio in Wollongong since 1948*

## Joint Picnic 25<sup>th</sup> September 2021

### IARS Remote station clubhouse Bundanoon

The IARS and MSCARC will again be having a combined picnic and fox hunt on the 25<sup>th</sup> September 2021 weather and Covid 19 permitting. Pencil this date into your diary, we will be sending out more information closer to the time.

Don't miss this opportunity as there will be a great opportunities to hone your DF tracking skills in at this location.

### Upcoming meeting presentations .....

- **June 2021** : Keith VK2KQB, Power supplies, Keith will be sharing some tricks on power supply design, repairs and maintenance with a look at switch mode and linear type comparisons. Even resurrecting that old PSU
- **July 2021** : Construction night. We will build a VK2KU noise canceller kit on the night.
- **August 2021** : AGM with SHOW & TELL, bring along videos and pictures of your latest projects.
- **September 2021** : SDR (Software Defined Radio) Evening, we look at this technology and how it is growing among AR operators.
- **October 2021** : Our Annual Trivia evening, with great prizes and laughs to be had.
- **Novemebr 2021** : The famous IARS auction night with our host Simon VK2XQX, letting us get away with some great bargains.
- **December 2021** : Pizza night dinner with a show and tell, perhaps a surprise this year 😊



# Fun Corner

Please send in your funnies to [secretary@iars.org.au](mailto:secretary@iars.org.au)



What your Dash is really telling you, Doug VK2XLJ



More radios? From Dave VK2BRA

Thanks Guys 😊

That's all for now, hopefully see you at the Blue Scope Visitors centre on Tuesday evening, 8<sup>th</sup> June 2021 at 7.30pm.

Stay Safe

73's

Keith VK2KQB

IARS Secretary

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

