

Illawarra Amateur Radio Society

Propagator AUGUST 2023

Upcoming AGM on the 8th August 2023

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

Blue Scope Northgate entrance off Springhill Road (See website for detailed map)

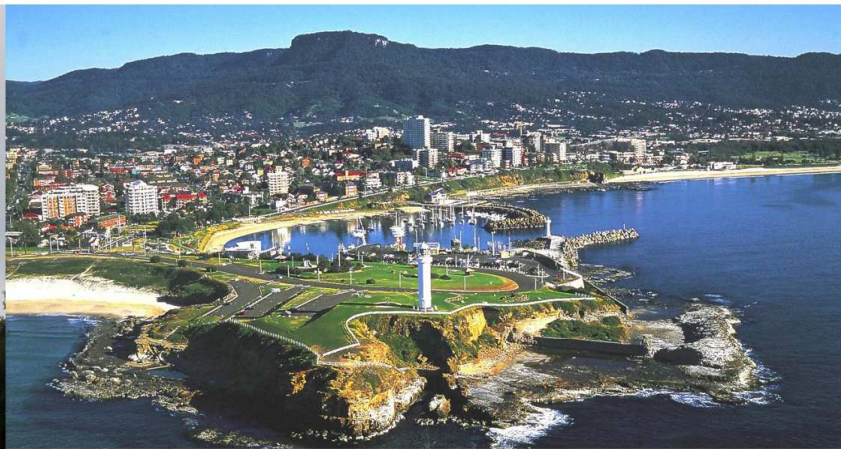
THE FOLLOWS A COVID19 SAFE PLAN



VK2RUW (Knights Hill)

34.6231° S, 150.6942° E

QF55IJ



AMATEUR RADIO IN THE ILLAWARRA SINCE 1948



VK2RMP (Maddens Plains)

34°15'30.6"S 150°56'47.4"E

QF55LR

VK2AMW

This year is our 75th anniversary

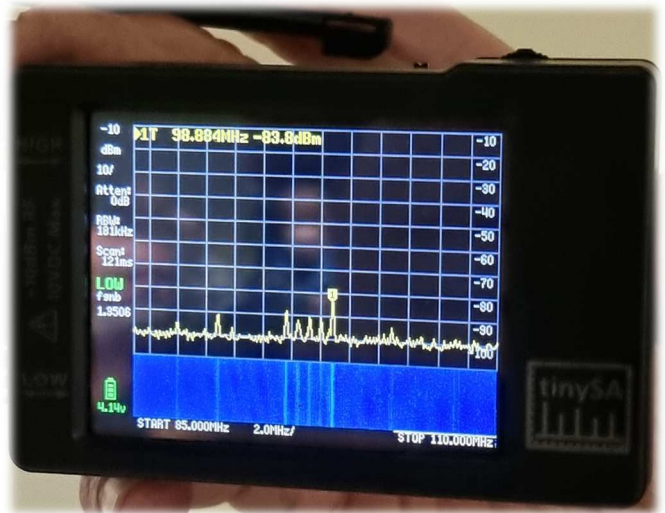
Our last meeting 11th July 2023

SHOW & TELL

It was a nice relaxed evening with carte blanche, with a general discussion of all things and happenings 😊

Ned VK2AGV showed us his new purchases of a Rohde and Schwarz 3GHz spectrum analyser and a Tiny SA.

As the R&S costs a few grand, Ned showed us the versatility of the tinySA and although cannot compete with range and other features of the R&S, the tiny SA is quite formidable



The tinySA are a small spectrum analysers and signal generators with some nice capabilities, any can suit your pocket.

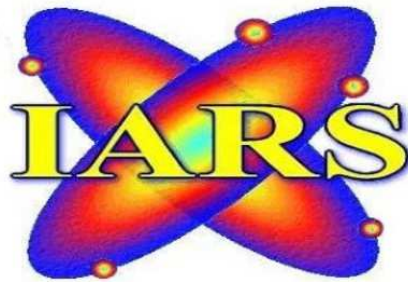
- *Spectrum Analyzer with two inputs, high quality MF/HF/VHF input for 0.1MHz-350MHz, lesser quality UHF input for 240MHz-960MHz or*
- *Signal Generator with two output, sine wave output for 0.1MHz - 350MHz and square wave output for 240MHz-960MHz when not used as Spectrum Analyzer.*
- *Switchable resolution bandpass filters for both ranges between 2.6kHz and 640kHz*
- *Color display showing max 290 scan points providing gapless covering up to the full low or high frequency range.*



For more information about this great little product see the link <https://www.tinysa.org/wiki/>

Afterwards we all had a good chinwag and shared some more stories over a good cuppa and chocolate biscuits.

NEXT MEETING



Our AGM and chinwag evening

It seems like the other day we had our last annual AGM.

As every year this time, we have our AGM where we select our committee for the new year moving forward.

All positions are available for anyone wishing to offer their services and support for the society.

Most of the committee is still standing for the upcoming year but if you wish to make yourself available then please fill out the forms available on the website or advise by email to iars.keithb@gmail.com or secretary@iars.org.au and forms will be sent to you.

Please ensure that your membership fees are up to date for you to exercise your vote or apply for a position in the committee.

After the committee voting and committee selection, there will be a casual open floor discussion “chinwag” ☺ and a nice Christmas in “August” pudding, offered up by our very own, legendary treasurer, John VK2EJL.

There will also be some refreshments like tea and coffee with biscuits

SEE YOU THERE

Disposables Donation Table

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. **Thanks to those that support this every month, awesome!**

SNOWBALL

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



Snowball was drawn in the meeting with Ned's number being drawn but unfortunately Ned did not participate, all monies have now snowballed to next meeting where you could win more CASH\$\$\$\$\$

Congratulations to our newest licenced member.

Wayne Driscoll VK2ABX

Although Wayne has been a member of the IARS for over two years, he finally decided to take the test and has just passed his AMC examinations through the IARS.

Please join us in welcoming Wayne to the amateur radio world and keep an ear out for him on air.

Is it your turn next to get your licence??? Or just want to Upgrade? It is as easy as One, Two, Three 😊



Looking to Upgrade to Standard or advanced and even obtaining your Foundation license 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*, and its FREE!!! *

We have approved AMC accessors that can offer remote assessments for the AMC.

Please contact Keith VK2KQB at iars.keithb@gmail.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))

(* Training, assistance, and assessment is free, however there are costs associated with the ACMA call sign and AMC examinations)

Membership fees

Thanks to those that have already paid their membership subs, awesome!

There are still a few membership payments outstanding and are hoping that we can get this all settled before the next meeting, which will also allow you to vote at the AGM. The IARS membership fees are still one of the **lowest at \$25.00 normal, \$20 concession**. This relates to \$2.20 per month, for 11 meetings (less than the price of a cup of coffee)

We have also received some large donations from members, and we would like to take this opportunity to thank them very much for their financial support.

Your membership fees and donations keep your club operational, thank you!

All monies from our interest on investment, donations and membership fees goes to support the club with:

- Public liability insurances
- Repeater maintenance and equipment
 - Repeater site fees
 - Blue scope meeting hall rental
 - IARS call signs with the ACMA
 - Coffee, tea & refreshments
- Outings & picnics and Christmas dinner.

To make payments you could either pay John VK2EJL at the next meeting OR use the IARS bank account (info below),

Please add your call sign or name with the payment, thank you.

Bank: IMB Wollongong
Account name: Illawarra Amateur Radio Society
BSB: 641800
Account number: 100023291



Don't forget the **THREE** weekly IARS nets as below (Yes there are **Three** now)



to the IARS NETS



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

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.

Saturday Morning EAST COAST NET hosted by Steve VK2BGL at 9.30am

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.

*The IARS would also like to thank **Doug VK2XLJ**, who is always willing to assist whilst Steve is away.*

Thanks again Doug for helping whilst Steve is away, we also want to wish Steve all the best with his wife's recovery from surgery.

Thursday afternoons at 12pm and is run by Chris VK2CY.

This Net is made up of many retired Marine Radio Operators and Radio Inspectors, but everyone is welcome. As you can imagine their topics of discussion can be far reaching, informative and enlightening. The Net operates on the Society's 2 metre repeaters of 146.850 and 146.675, while out-of-towners can check-in on Echolink via VK2MT-R.

IARS REPEATERS



VK2RUW (Knights Hill)

146.675 MHZ >>>>



linked

<<<<



VK2RMP (Maddens Plains)

146.850 MHZ

Current STATUS

- 438.225 with a - 5MHz offset. **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 **OK**
- 53.650Mhz with a – 1Mhz offset 123Hz CTCSS tone **OK**
- 438.725Mhz with a -5mHZ offset DMR only, **OK**
- 1296.850Mhz Beacon with simplex repeater function – **OK**
- Echo-link VK2MT-R is back on the air on 146.850MHz and 146.675MHz via VK2MT-R and VK2BGL-L when linked - **OK**

The IARS welcomes any feedback on our repeater systems.

Please send all your feedback to 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 under the Contact details page.

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

XX



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

- **Looking for** old test equipment laying around in your shack, **working or NOT!** Email Keith at vk2kqb@gmail.com



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**

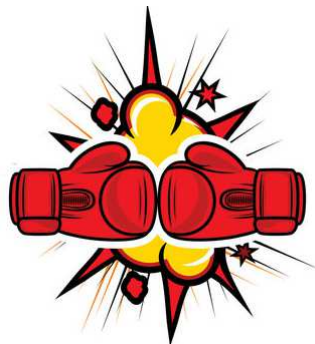
Let us know by return email iars.keithb@gmail.com

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 Tech Corner contribution is a very interesting topic which may have been covered before but definitely worthy of a second look.

Do we really need 1 kilowatt?
\$\$\$\$\$

ANTENNA



AMPLIFIER

HF Amplifiers versus Antennas—One Ham's Opinion

Think you need a shiny new linear amplifier to chase away your HF radio blues? Think again. What you probably need is a better antenna! Here's why....

By Kirk A. Kleinschmidt, NT0Z, 16928 Grove St, Little Falls, MN 56345, kirk@cloudnet.com

Let's start by eliminating any thoughts of fairness and equality regarding this article's handling of the age-old philosophical struggle between amplifiers and antennas.

More than a few hams will take exception to my biased statements (common when trampling sacred cows and sneering at tradition), but if you're a typical beginning ham, you're probably wondering whether to buy an amplifier or improve your antenna system—or maybe both.

It's a logical question. You want to improve your station's signal quality, make more QSOs, work more DX stations, rack up higher contest scores and chat with others while enjoying armchair copy.

You want to know whether amplifiers are a good investment, whether they'll require additional equipment and services, whether they'll provide the boost in readability you've been desiring and so on.

By now you're thinking that I'm an "antenna guy," and that I'm here—through this article—to persuade you to improve your antenna system. You're right!

But beyond the many nuts and bolts reasons detailed herein, I'd like you to at least consider a few philosophical reasons to keep your power output at barefoot levels (or less!). Then, if you're not convinced, we'll take a look at the cold, hard facts about amplifiers and antennas.

Amateur Radio's Middle Path

Amateur Radio operation in the US is constituted as a radio *service*, with rules, regulations and goals that go beyond the interest of mere hobby operation. In becoming licensed hams, we agreed to play by those rules. One of the most important rules compels us to use the minimum transmitter power required to communicate.

That doesn't rule out the use of linear amplifiers, of course, but it does put a damper on their indiscriminate or *habitual* use. Powering your amplifier through your shack's light switch certainly violates the rule, as does running maximum legal output power when chatting with the gang across town (or when propagation clearly doesn't require it).

The minimum necessary power rule is designed to protect us all. It promotes responsible, considerate operation. Try it sometime! Reduce your 100-W signal to 50 or 25 W. Thanks to years of low-power operating, I *know* that you'll maintain effective communication *most* of the time. You'll also improve your operating skills, enjoy a greater sense of achievement and gain an intuitive sense of propagation.

By the way, the FCC's minimum necessary power rule isn't suspended for contest operation, to work DXpeditions, etc. About the only open-and-shut case for the automatic use of maximum available power is for emergency communications. When someone's life is on the line, the more power the better. That kind of service is what the Amateur Radio Service is all about.

Skill Versus Brute Force

Long before David and Goliath had their epic battle, skill has been tangling with brute force. I'm sure you have your favorite analogy. Basically, it comes down to the fact that any idiot can fire up a water-cooled Voice of America-size transmitter and blurt out a whopping signal. I place hams who take this approach in the same category as the guys who screech the tires on their 1-ton pickups or water their lawns during drought emergencies. Both are equally impressive, I'm sure.

On the other hand, if you align yourself with the Davids of the world, substituting skill and persistence for brute force, you'll be in better company—and you'll be upholding the tenets of the Amateur Radio Service.

The Golden Rule

Hams treading the Middle Path are concerned about others—hams, neighbors, family members, etc. They try to fit in, to get along, to accommodate a community of interests in addition to their own. They practice the Golden Rule Do unto others as you would have them do unto you (reasonable variations notwithstanding).

As hams who comprise a federally licensed emergency service, we enjoy certain protections from *unreasonable* local restriction. These privileges are welcome and necessary as a whole, but they can be easily abused.

Just because we *can* transmit a 1500-W signal doesn't mean we *should*. Just because we *can* erect a 200-foot-high antenna tower doesn't mean we *should*. Hams who follow the Golden Rule *integrate* their radio pursuits with the pursuits of others—not because they *have* to, but because they *want* to!

Governments can't legislate common sense. That's up to us.

Okay, that's the end of my emotional pitch for restraint. If you're still tempted to reach for the power switch (the *high* power switch) or dig into your rainy day fund to purchase an amplifier, let's look at the facts.

The Ham Next Door

To start, let's assume that you have a typical shack. A 100-W transceiver graces your operating desk and "talks" to a coax-fed dipole (or two) through a 300-W antenna tuner. Thanks to the tuner, your rig can happily put out full power regardless of actual antenna/feed line SWRs on the various bands you work.

You use the same setup as your "Elmer" and most of the guys in the local radio club. Uncounted thousands of hams have used similar setups over the years, so they must work pretty well, right?

Maybe. But maybe not. In fact, you might have noticed that working stations on some bands doesn't seem as easy as it should—especially DX stations. You might even be dreaming of solving your problem by cranking up the power. By adding a gleaming, glowing monster amp to your modest shack, you might think, those stations with once-marginal copy will respond with ease.

It's a comforting image, but it's probably more fantasy than reality. Although you may not yet know it, you'll likely get a lot more signal for a lot less money if you upgrade your antenna system before shelling out the bucks for an amplifier.

The Price of Power

Let's boost our signal a step or two at a time and see how the decibels stack up against the greenbacks.

If your amplifier budget is modest, a small solid-state or single-tube amplifier will boost your 100-W barefoot signal to about 500 W. That's enough to be noticed, or so you think—but just how noticeable?

Here's the law every amplifier has to measure up to Every time you double your power output, stations that are receiving your signal hear a 3-dB increase in strength. That's *half* an S unit! To twitch the needle a full S unit you need to *quadruple* your power output (a 6-dB increase)!

The power output progression looks like this 100 W doubled to 200 W equals a 3-dB increase. Next, 200 W doubled to 400 W equals a 6-dB increase. Then, 400 W doubled to 800 W equals a 9-dB increase (exceeding the output power of our entry-level amplifier). Finally, 100 W times 10 equals 1000 W, a 10-dB increase in power output.

Our 500-W output amplifier gives us a smidgen more than a one S-unit boost on the other end (see **Figure 1**). That's not much—especially when you consider the cost.

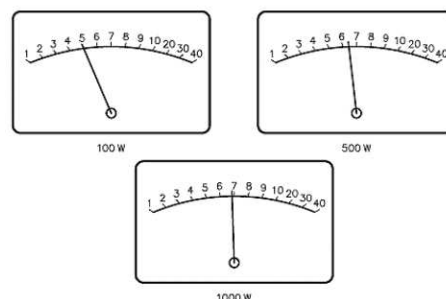


Figure 1—Spend a wad of cash on an RF power amplifier and what do you get? Let's assume that we have an average conversation in progress on a quiet band. Your current 100-W signal pushes an S meter on the receiving end to S5. Increase your output to 500 W and the other guy's meter might slide up to a tad more than S6—a change he won't even notice. Turn on the 1000-W afterburner and you'll make his meter twitch almost to S7. Oh boy! Yes, he'll probably notice a difference now, but he heard you well enough at S5, didn't he?

More Power

So, you want to run even more power? Using our calculations from before, boosting your signal to a kilowatt output provides a 10-dB shot in the arm. That's just under two S units on the other end—S3 to S5, S7 to S9, etc.

That's enough of a difference to be noticed, but still not enough to "burn down the barn." And by the way, the most affordable kilowatt amplifiers cost about \$1500. If you really go for the gusto and buy a legal-limit amplifier, your 1500-W signal will be about 12 dB stronger than your "barefoot" transceiver. Because of the "price of power," 1500 W is still only two S units stronger! And a legal-limit amplifier is hardly a casual purchase. It'll set your wallet back about \$2500.

Hidden Costs

Don't think you can get away with just an amplifier! The power output curve is often deceptive. For example, above 300 W output or so, you'll need a beefier antenna tuner. Expect to spend up to \$500 for a good one.

And don't forget about the ac mains, either. You can probably get away with running a 500-W output amplifier on 120 V ac, but beyond that, it's 240 V all the way. (Don't believe me? A 500-W output amplifier runs about 1000 W input power. That's 8.5 A at 120 V. With your rig added in, that's more than 10 A. Believe me, the lights in your house will "jump" to the rhythm of your code key or your spoken words!)

Chances are good that you won't know how (or won't want) install that 240-V line yourself, either. The materials and an electrician to install them likely will total \$300 to \$500. Many first-time amplifier users don't consider their beast's power supply requirements until they've set up the amp and started "browning out" the rest of their house! If this is you, you'll be lucky if you don't trash your TV set or your home computer in the process of "modulating" your 120-V power feed!

If you live in an urban setting, don't neglect the potential "public relations" costs of firing up a killer signal in the midst of all those consumer electronics devices. I know...you can legally stand on the solid rock of FCC-mandated power output limits—but be warned that it can be a lonely vigil.

A Better Way?

To save wear and tear on your neighbors, fellow hams, your wallet and even your house wiring, consider improving your antenna system before investing in an amplifier. Here are some ideas to get you started

One almost universal way to get out more signal is to get your antenna(s) farther up in the air (your present antenna or a new one). Build a taller mast, find a taller tree or put up a tower.

If that dipole just isn't cutting it, put up a contest-winning and DX-catching secret weapon—a full-wave horizontal loop for 40 or 80 meters (up as high as possible, of course!). Feed it with coax and use a tuner on bands above the fundamental frequency. That's a "cheap 'n' dirty" way to snag an extra 2 to 10 dB, depending on frequency.

Disconnect the feed line from your coax-fed single-band dipole, the one you try to use on several bands, and replace it with 450- Ω ladder line (see **Figure 2**). With a coax feed, even though your antenna tuner may be presenting a happy impedance to your transmitter, feed line losses due to high SWR may slash your signal by 6, 10 or 25 dB, depending on the band and the size of your dipole! By using 450- Ω open-wire line you'll likely reclaim most of that lost power. Now that's a 6 to 20-dB shot in the arm that anyone can afford!

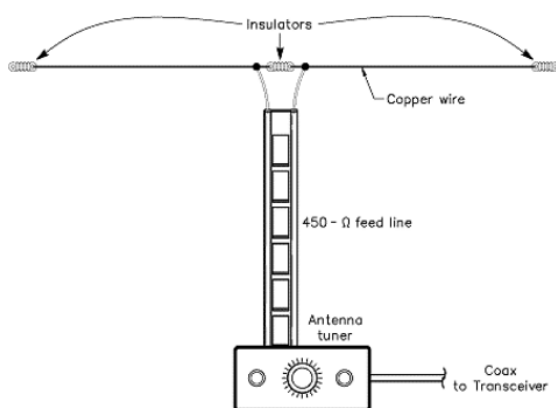


Figure 2—You can increase the performance of a simple dipole by using low-loss open-wire 450- Ω windowed feed line. This is one of the easiest, inexpensive antennas for the HF beginner. Just string up a dipole made of two equal lengths of copper wire. Don't worry about the overall length; just make it as long as you can. Connect the feed line to the center insulator and run it back to an antenna tuner with a balanced output. Attach coax between the tuner and the radio and you're in business on several bands!

For less than the price of an entry-level amplifier you can buy a multiband beam antenna and a decent rotator. This dynamic duo, mounted reasonably high, will offer a 5 to 7-dB steerable improvement to your signal. Remember Amplifiers only boost your transmitted signal and do *nothing* to improve reception. By rotating a directional antenna you can often achieve a double-whammy—boosting the signal you're trying to receive while attenuating signals that are unwanted. For example, if I'm working a European ham from my Minnesota QTH, a potentially interfering signal from an op in Florida—located in the side null of my directional antenna—may drop 25 dB or more! The difference, more than 30 dB of signal enhancement, could never be achieved by a lone amplifier.

On SSB, learn the *correct* use of your rig's speech processor. There's another 3-dB (or more) improvement, this time in the modulation department! No purchase necessary!

Aftermath

So, after looking at the cold, hard facts, do antennas win out over amplifiers at your shack? Or will your operating table soon be sporting some heavy iron? As always, the choice is yours.

Amplifiers do have their uses—especially *after* you've tweaked your antenna farm. Add a 10-dB amplifier to a 7-dB beam antenna and you've got a whopping 17-dB improvement in signal strength! That will put you on the map—especially when the minimum necessary power required to communicate calls for maximum smoke. And when conditions are poor an amp may make the difference between being heard and being lost in the noise.

As long as it's confession time, let me come clean.... Most of my operating over the past 23 years has been at QRP or barefoot power levels, but I've used an amplifier every now and then.

The first was one that I built myself from scavenged parts. I was seduced by the possibility of a glowing 4-400A transmitting tube, and I was trying to work DX on 80 meters with a poor antenna.

The amplifier helped me put a few difficult QSOs in the log, but collateral considerations forced me to abandon my glowing metal and glass monstrosity. The 150-pound amp was collapsing my operating desk, and its draw from the 120-V mains was overwhelming! I could only use it in the wee hours when everyone else was in bed....

After I put up a decent 80-meter antenna, I never looked back. Given the choice, I'll take a "killer" antenna instead of a "rock crusher" any day! How about you?

S Meters and Radio Lore

Something needs to be said about S meters: With a few exceptions, they're inaccurate, nonlinear and of dubious calibration!

Each S unit on a typical S meter is supposed to indicate a 6-dB increase in the strength of a received signal. But it probably doesn't. Or it might—at one frequency on one band (or a few frequencies on a few bands). On other frequencies and modes, however, it might provide readings that are way out in left field.

S meters appeal to our senses and to our need to categorize and stratify things in our environment. They can be useful, but we shouldn't rely on them for precise measurements. That's what your brain is for. Use it and forget the bouncing needle!—*NT0Z*

When Less is More

Now that you've seen that it takes a whopping amount of extra power to make a noticeable difference in received signal strength, you might be wondering whether the cold equations work in the other direction—and they do!

If you have an okay signal with 100 W, you'll likely have a workable signal with 25 W, or even 5 W. That's the Holy Grail of QRP (low power) operation. The power output numbers work, just like before, in reverse.

Let's say that you have an S9 signal with 100 W output. Cutting your power to 50 W provides a 3-dB decrease in strength. Cutting power to 25 W adds another 3-dB reduction. Therefore, going from 100 W output to 25 W output has reduced your received signal strength by 6 dB—only 1 S unit! By drastically cutting your power output, your signal has dropped from S9 to S8! That's not a big deal!

Dropping from 100 W to 10 W is a 10-dB reduction—less than 2 S units. Dropping to 5 W, the commonly accepted threshold for QRP operation, totals 13 dB—just a smidgen more than 2 S units. Your signal will go from S9 to about S7! Again, not a big deal!

Add a decent directional gain antenna to the QRP equation and you're back in the old ballpark—while running a *lot* less power. That's QRP. And it's a lot of fun.—*NT0Z*

❖ THE PROPAGATOR ❖

Volume 5 Issue 96

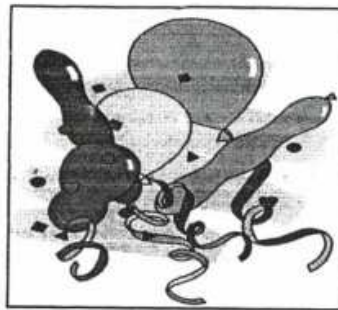
AUGUST

1996

THE ANNUAL GENERAL MEETING IS IN AUGUST

Well its that time of the year again. The AGM approaches, where has the year gone. This also means that the election of club office bearers is upon us. Has it really been a year? This was my first go at the Presidency of the club and I have enjoyed it thoroughly.

At the first committee meeting that I attended as president, I said that we have to put the IARS back on the map so to speak. I wanted the Illawarra Amateur Radio Society to be talked about. The best way I could see to do that was through our repeater systems. Even with more problems than a mathematics book, I know that we have achieved that goal through the installation of 146.850 at Bulli Tops. In my opinion, this is the best 2m repeater on the east coast. As I type this is, it is all but finalised licensing wise, giving coverage from Newcastle in the north, Bega in the south, Orange in the west, Canberra and even to a guy hand held on his farm in Cessnock. We should all be very proud of this repeater and of those who put the effort in to make it a reality. A special thanks to Mr repeater himself Rob VK2MT for



**OLD AMATUERS NEVER
DIE, THEY JUST GET
LONGER DX**

his tireless efforts and numerous late nights to get the system up and running as well as keeping the existing systems on the air. I would also like to thank all the other members involved in the many site visits to keep our systems running.

I would also like to thank Rob in his capacity as Secretary for his terrific job throughout the year. We can't forget the excellent job done by the fella with polyhats, Brian VK2UBF. Brian has been the Treasurer since Dale was unable to continue in the position, as well as Canteen guy, call back guru after the Sunday WIA broadcasts and also as net controller for the Monday night Havachat net.

DON'T FORGET THE AUCTION AFTER THE AGM

This from a guy who was not an amateur and at that stage not even a member of the club. Cheers Mick.

Unfortunately Michael was unable to continue with the propagator due to work commitments being put onto Tuesday evenings. The Propagator was then taken over by myself and I have to tell you that I had to beat the others off with a stick to keep the job, or were they trying to beat me with a stick. Anyway, I've had fun doing it. The production has certainly changed in 5 years since the last time I did it.

Most of all I would like you the members who through your support throughout the year via auctions and video nights and attending of meetings, I hope you had an enjoyable year.

I can't go without telling you that your next years fees are due at the end of the AGM.

Cheers

Simon VK2XQX

TREASURERS REPORT

This report covers the financial year July 1995 to 30th June 1996. The report will be given in full by me at the AGM on 13/08/96.

The opening balance for July 1995 was \$811.65.

Income for the year ended June 30th 1996 came under the following headings:

MEMBERSHIP

RAFFLE

DONATIONS

ADVERTISING

INTEREST ON ACCOUNT

GOODS SOLD BY THE CLUB

AUCTIONS

Total outgoings for the year ended June 30th 1996 came under the following headings:

REPEATERS

POSTAGE OF PROPAGATOR

AUCTION PAY OUTS

PURCHASE OF GOOD FOR RE SALE

SITE FEES (SUBLIME AND MADDENS)

MISC EXPENSES.

LICENCE FEES (SMA FEES ETC)

(Actual figures have not been included at this stage as the propagator goes to other places apart from the members. actual figures will be presented by Brian at the AGM in August.ED.)

Hello fellow club members. As you will hear at the AGM, we have had a good year financially. I hope that somebody will take over the treasurers position at the AGM, as I have enjoyed the 3 years that I have held the position, but I feel its time to let someone have a go. I will still be around doing something for the club.

I would like some more people to come onto the ""HAVA CHAT NET"" Monday nights around 7.30pm, so why not call in and ""HAVA CHAT"".

CALLBACK REPORT

Sunday callbacks have been great. More and more VK's are call back after the WIA Broadcast than in quite some time This reminds to ask you all to speak more slowly-when calling in as I cannot write so fast, as we get around 18-20 callbacks in the morning session. Sometimes its hard to get all the calls down. I will still be doing call backs in the new financial years. Hope to see many members at the AGM.
BRIAN VK2UBF.

□

Just a thought on call backs from me VK2XQX;

A number of stations get the big hoof on them in the initial rush to get in when call backs start, so as well as calling the boys down South (146.700) in separately, perhaps we could call stations in from North of Wollongong first, then West then South. Let Brian know what you think at the AGM.

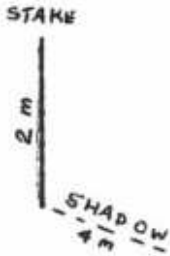
**THE AGM
MEANS THE
ELECTION OF
NEW OFFICERS
OF THE CLUB.
WHY NOT
STAND FOR A
POSITION AND
BE A PART OF
DIRECTING THE
CLUB INTO THE
FUTURE. YOU
MIGHT EVEN
HAVE SOME FUN**

CALCULATING THE HEIGHT OF A MAST

MAST

The height of a mast may be calculated by comparing the length of it's shadow, with the shadow of a stake or post.

- (a) Measure the length of the mast shadow on the ground.
- (b) Put a stake in the ground and measure it's height.
- (c) Measure the length of the stake shadow.



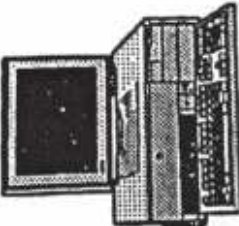

$$\text{Height of mast} = \frac{\text{Length of mast shadow} \times \text{Height of stake}}{\text{Length of shadow of stake}}$$

Example : Length of mast shadow = 20 metres
 Length of stake shadow = 4 metres
 Height of stake = 2 metres

$$\text{Height of mast} = \frac{20 \times 2}{4} = 10 \text{ metres}$$

Jim VK2CAV

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Will share more oldies next month.



Feedback IARS Field Day Weekend

To commemorate the



The Illawarra Amateur Radio Society operated at Penrose for the Trans Tasman contest on the 15th and 16th of July.

It was a great turn out and even though it got a bit chilly, we have a cozy fire and super duper central heating in the shack, thanks to the pig stove installed by Simon VK2XQX ☺



Vinnie VK2VIN roasting chestnuts on the internal heating



Simon VK2FO/XQX , Rob VK2XIC and Simon VK2KU getting some much needed points



Future Hammie Ashton with a very happy Troy, VK2FHTW enjoying the day



Vinnie VK2VIN getting ready for the 6hours shift



Dan VK2FDSD enjoying the IARS BBQ club lunch



Simon VK2KU tech talk with John VK2CMO



Fireman Wayne VK2ABX and John VK2CMO



Simon VK2FO, Tony VK2TS and Rob VK2XIC having a QSO



Our cozy outdoor heat generator



The dipole with ladderline feeder used for the contest



Very HIGH-TECH antenna mounting system with an ICOM AH4 antenna tuner

A great day was had by all, unfortunately we had so much fun that there was no time for pictures, apologies for the lack of them 😊. However, there is always next year and hopefully we can all enjoy next year's Trans-Tasman, if you missed this year, easy, just come along to the next one.

Thank you to Simon VK2FO for cooking the BBQ, Simon VK2KU for the loan of his ICOM 7300 and AH4 tuner, John VK2EJL for the ladder line, Keith VK2KQB for the food, Vinnie VK2VIN for the roasted Chestnuts, and everyone that attended. All we have to do now is keep an eye out for the scores 😊



AR NEWS



ACMA makes changes to amateur access in 50–52 MHz and 3.4–3.6 GHz frequency bands

Following consultation on changes to amateur access in the 50–52 MHz and 3.4–3.6 GHz bands, we have made the Radiocommunications Licence Conditions (Amateur Licence) Omnibus Amendment Instrument 2023 (No.1). [Link](#)

The proposed changes will:

- Give Standard amateurs and overseas equivalents access to the 50–52 MHz frequency band.
- Remove access to the 3.4–3.6 GHz frequency band for Advanced amateurs and overseas equivalents.

This is in areas that have been re-allocated for spectrum licensing and identified for possible long-term earth station protection zones.

More information use this link <https://www.wia.org.au/newsevents/news/2023/20230719-1/index.php>



WIA National News Every Sunday at 10H00

If you have missed this weeks news or want to go back inb time, the WIA has records available at this link

<https://www.wia.org.au/members/broadcast/wianews/>



Upcoming meeting presentations

- August 2023 : IARS AGM, with a chinwag and Christmas in July August, possibly plum pudding. NEED TO RSVP for the delicious PLUM PUDS homemade by John VK2EJL
- September : Simon VK2KU , Projects for your Shack
- October : Show and Tell
- November : Auction with our hilarious and esteemed Simon VK2FO / XQX
- December : Xmas dinner



This Propagator is **your** newsletter, it lets **you** know what's happening with your society, including some info thrown in for your enjoyment of course 😊.

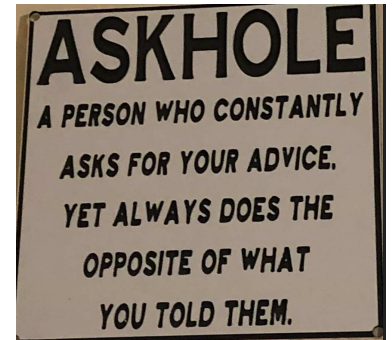
The published content is only as good as the information sent to us.

The **IARS needs YOUR input and support**, any technical items, amateur radio news, any projects you would like to share, in fact any AR related goings on is welcomed.

Feedback is also very important for us as it helps maintain a good read, if you would like to see more of something, or would like to see a subject added. Please let us know , secretary@iars.org.au

Fun Corner

Please send in your funnies to iars.keithb@gmail.com



That's all for now, hopefully catch you all at the [Blue Scope visitors centre on the 8th of August 2023](#)

Stay Safe
73's
Keith VK2KQB
IARS Secretary

IARS, Amateur Radio in the Illawarra since 1948