

QTC

The Radio Amateur Society of Australia

May 2023

Amateur Radio at Carnarvon Space Museum

**STOP PRESS - ACMA Pulls Back
Licensing And Assessments In House**

New Columns

RASA Achievements



*The Radio Amateur Society
of Australia*

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Contributing Items For QTC Magazine

QTC Magazine welcomes contributions for future editions. When planning to submit an article, please read our submission guidelines first. Following the guidelines will save you and the editing team a lot of time and effort. The guidelines are [HERE](#)

Cover picture credit: Dan VK6NAD took this and more photos at the Carnarvon Space Museum during the "Night At The Museum" activity in the Solar Eclipse week. See the full story in this edition of QTC.

YAESU from DICK SMITH
WHEN YOU REALLY CONSIDER THE ALTERNATIVES - THERE ARE NONE!

Fabulous FRG-7
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Terms available
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Cat D-2854

How would you like those prices today?



ACMA Brings Amateur Radio In-House

In what is possibly the single most important decision for the sector in recent years, the ACMA announced on 25th May that the Australian Maritime College (AMC) will not be renewing its agreement to deliver Examination and Callsign Administration Services for Amateur Radio, and that ACMA intends taking these functions back in-house.

There is a large back story behind this decision and it appears to have affected the direction the ACMA is now pursuing. The WIA had been controlling the exam processes for some time, leading up to 2019 when the task was re-tendered by the ACMA. At that time there had been many complaints about the professionalism of exam and license processes.

The ACMA would have taken this into consideration when it awarded the contract to the Australian Maritime College. In its favour, the college had a long track record of administering maritime licensing and examinations in a professional manner.

Over the past four years, the AMC has undergone changes and pressures unrelated to Amateur Radio and this undoubtedly contributed to their decision not to continue with the current arrangement. It is unlikely that another professional training organisation with large resources at its disposal will come along to take over this role.

The AMC decision comes at a time when the ACMA is keen to reconfigure Amateur Radio as a Class License. Apparently they have concluded that the best, safest way to achieve this is for the ACMA to do it themselves.

This announcement is not necessarily a bad one. More detail is needed, particularly around how the network of volunteer Amateur Radio assessors around the country will interact with the regulator as their new manager.

The success or failure of the ACMA's plan will likely hinge upon the amount of resources made available to administer this new scheme.

If the transition and subsequent management is well resourced, with short response times and clear actions, then this approach could be very good for our sector. If the ACMA tries to cut corners and operate with an under-resourced skeleton staff, it could badly impact the future of Amateur Radio in this country.

Our future prospects for a stable, viable system should not be squandered by small mindedness or crisis engineering.

The ACMA has indicated that an additional consultation shall take place about the assessor network. This is a valuable opportunity for the assessors and the clubs they

support to voice an opinion on what they feel is necessary to maintain or expand their roles.


It will certainly be a topic of discussion as RASA reaches out to clubs across the country for their take on this issue.

Right now, with the information available, the scheme projected by the ACMA is neither good nor bad, but it is an excellent opportunity to excel. Our future prospects for a stable, viable system should not be squandered by small mindedness or crisis engineering.

More than ever, it is essential that all representative groups work together. Time will tell. Already the "hounds of war" are baying, however the good of Amateur Radio seems to be the last thing on their minds.

We must pull together to ensure the ACMA hears loud and clear what's best for Amateur Radio in this country.

We squabble at our peril.

RASA will monitor the situation closely, and will provide a detailed summary in the August edition of QTC with QTC Lite bulletins as required. 

Editorial

There are some good things happening in Amateur Radio in Australia. And there are some fantastic things happening in Amateur Radio in Australia.

In this issue are two stories of Amateur Radio activities - one weekend programme, AntennaPalooza, brought together more than fifty Amateurs from clubs around Victoria and further afield. AntennaPalooza promotes sharing, learning, playing with Amateur Radio equipment, demonstrating portable equipment, and of course, socialising and pizzas around a campfire.

Another activity, at the same time, 4,000 Kms away, was promoting Amateur Radio to a global audience. The occasion was the Solar Eclipse, and the Gascoyne coastal town of Carnarvon was packed out with Australian and International visitors in town for the solar eclipse event.

One of Carnarvon's main attractions, apart from on-the-doorstep horticulture and fishing industries, is the Carnarvon Space Museum, formerly a NASA ground station for the Gemini and Apollo Space programmes. Dan VK6NAD, with some help, set up a working Amateur radio station and display inside the museum, which attracted a lot of interest.

Both these activities are described in articles in this issue of QTC.

It's likely that other worthy Amateur Radio activities were happening around the same time, however these two have come to our attention, and we carry their stories.

Meanwhile, there is a cohort of people in our rather small Australian Amateur Radio Community whose energy isn't focused on the betterment of our hobby. Rather they spend their energy discrediting those of our community who are rolling up their sleeves and getting on with doing the right stuff.

These acts of misrepresentation go unchallenged, and they are certainly not acknowledged or challenged by the WIA's Board of Directors, who

remain silent. We could call it tacit support of those negative actions.

When some sectors of the Amateur Community expose the negativity, they are met with a wall of apathy - "We don't want to know, that's politics".

Meanwhile the Wireless Institute of Australia, the oldest Amateur Radio Society in the world, does, well, nothing. The WIA has no major achievements to its name since they lost the Deed with the ACMA in 2019. Since then, they have blamed everyone except themselves.


WIA Member numbers continue to decline, and for the first time, have dropped to below three thousand members. Their financial performance remains degraded, and although showing a small surplus, this surplus was due to unused provisions for IARU meetings and COVID grants.

The Radio Amateur Society of Australia was formed five years ago, out of concern for the wellbeing of the WIA and Amateur Radio in Australia. Despite evidence to the contrary, there are those who wish to repeat the lie that RASA's purpose is to destroy the WIA. The opposite is the truth. RASA wishes the WIA to recover and resume its position of leadership in our community.

RASA remains committed to working collaboratively with the WIA. This sentiment is shared by the WIA President, Scott Williams, however it's been demonstrated time and again that Scott is not supported by his Board in his efforts to have the WIA and RASA working together in complementary roles for the benefit of Amateur Radio in Australia.

Meanwhile, you should decide where to direct your energy. It's clear that so many Amateurs "don't want to know", or "don't want to listen to politics" and so on, however "not wanting to know" is also a political stance.

Let's just call it "What's Good For The Hobby". It's a simple test. "Yes" means go for it. "No" means do something else.

Over to you. 

From The President

Paul VK2APA

In spite of what you hear some people saying, the days of Amateur Radio are far from over.



I guess we'll always have Chicken Little who is convinced that the Sky Is Falling In, who makes it their business to cry out their message of doom on street corners.

What I'm seeing is a wave of enthusiasm for new modes and a revival of old modes.

Who'd have thought that Slow Scan TV would reappear as a popular mode? Who could have predicted that FT8 would become the mode of choice for so many Amateurs?

We thought that Morse Code would disappear since being moved out of the Amateur Radio syllabus eighteen years ago, but here it is, still with us, with a growing number of Amateurs learning and using it. Humans are funny like that.

We're seeing a growing number of Amateurs developing ways to incorporate radios with computers, and vice versa. Software development for Amateur Radio use hasn't stopped.

So what do we do with the Doom And Gloomers? It may be that we can't turn their heads. And it's a certainty that the energy so consumed could well be better used to encourage newcomers to the hobby, and to promote the benefits, variety and usefulness of the many aspects of Amateur Radio.

We haven't been Dumbed Down, as some people say. Our Amateur Radio activities are far more diverse and complex than they ever were twenty, forty or more years ago. Amateur Radio is an exciting hobby, and it's our responsibility to be enthusiastic and willing to share our enthusiasm with others.

Many will tell you that Amateur Radio is too expensive. I wonder what it is compared to? The first HF Transceiver I bought from Dick Smith, a

Yaesu FT7 in 1976 for \$535 (6 weeks pay) which in today's money is equivalent to \$4,056.70! <https://www.rba.gov.au/calculator/annualDecimal.html>

A decent Transceiver with features you could only dream of in 1976, such as the IC7300, retail for \$1,595.00, or better. The Chinese offerings are also improving and there is even a HF Kit transceiver, the UBITX V6 you can assemble in an afternoon for around \$200USD

You can even be represented by a recognised national body for \$10 per year. Amateur radio has never been cheaper, nor as scientifically diverse as it is today.

Lets promote our hobby as it deserves and welcome and encourage those who do become licensed.

I believe that amateur radio has a lot to offer in this new technological age and with the correct approach and support can grow and continue to be a great hobby of the 21st Century. Apathy, attitude and inaction are the enemy.

Many clubs and groups are struggling to maintain and grow their membership. The allure of being a club member of a traditional club whose meetings have changed little from the 1950s is over. We live in a world where there are many other distractions and activities competing for our time and the time where amateur radio sold itself has gone.

We need to embrace a modern way of promoting amateur radio, in keeping with today's community expectations.



***The Radio Amateur
Society of Australia***

VI6CRO - Amateur Radio Attracts Huge Interest

By Dan Sutton VK6NAD

VI6CRO would, without a shadow of doubt, be the single most successful promotion of Amateur Radio to the wider community that this country has seen in a long time. And it didn't just happen. It was the brainchild of Dan, VK6NAD, who had the vision to pull together a global event, the solar eclipse of April 2023, the influx of visitors to Carnarvon – tourists, scientists, and those with scientific leanings, and a first class Space Museum, formerly a NASA earth station. Dan had a vision to pull these elements together, and with the cooperation of the Space Museum and several Amateurs, both individuals and clubs, he put together a well planned and executed live Amateur Radio display that ran for a week and attracted a lot of attention and interest.



Here's Dan's account of it. – Ed.

Seems so simple doesn't it, activate a busy museum whilst taking your family on holiday?

Well that was kind of the plan.

For those who haven't seen it, the Overseas Telecommunications Commission (OTC) Earth Station Carnarvon is an impressive site, especially for the passing Radio Amateur. Seen in all directions from its impressive perch on Brown Range, the big 97 foot (29.5 metres) dish is an ever-present landmark above the Western Australian peninsula town of Carnarvon, and can be seen from an extended distance up and down the North West Coastal Hwy.



Dan takes a break ahead of the next crowd

For me this site holds a certain reverence, a place I'd been coming to for close to 20 years, where I can place my hand on something that transmitted Australia's first overseas telecast, guided Apollo Astronauts to the moon and back all whilst its big brother was being built, I'm referring to the 42 foot Cassegrain horn (thought to be the last of its kind),

sitting next to the Carnarvon Space and Technology Museum under the shadow of the big dish.

The trifecta and family's real reason for the trip (they thought) was the April 20th Solar Eclipse of which Carnarvon received 97%.

With all these motivations in mind, I approached



the energetic brains behind the Museum, Phil Youd VK6YOB, who agreed in principle to host our station as long as we didn't get under foot... That would never happen right, amateurs with long cables and antennas, what could go wrong?

Well first off, Carnarvon though very pleasant, can get quite warm. To that end as we slowly hatched a plan, we got an upgrade from Phil, in from the heat of our marquee outside and into a prime location within the museums beautifully curated main hall.

The next issue we faced was what to display? Well, the way I sold it to Phil was, a working vintage radio station from the Apollo era (FT-101 with all the fruit), plus some satellite tracking equipment



and the tantalising promise that we would be focused on making contacts through the ISS.

Again, what could go wrong?

Well, I'll tell you what went right, Michael VK6TU furnished us with so much modern equipment to go alongside our vintage setup, that in order to transport it all to the Museum, I ended up sleeping with an Antenna. Yup, there is no way to make that sound fun. Of course, Phil's brief included light, brochures, banners the works and of course a

moving satellite antenna system, which Michael happily supplied us.



I started to become nervous at this point, I think it's fair to be said, if you're going to set up a station for public display, you ought to know how everything works right... yes well, I was starting to get out of my depth, with multiple computers, electronic antenna controllers, SDR recordings, menu driven radio etc etc.

There was a reason I suggested vintage, that's my shack, in fact the newest bit of gear in my shack is an \$80 SDR receiver.

So we carted it all up, stashed everywhere in the car and caravan, carefully sleeping around it until we burst into the Museum several days early just to get it out of our traveling home.

Taking a step back a minute, we received a vital bit of information days before we left thanks to Rob VK6LD of the Southern Electronics Group. Phil had placed us directly next to the telephone board in the museum and our coax had only one route out, and that was parallel to the NBN phone line.

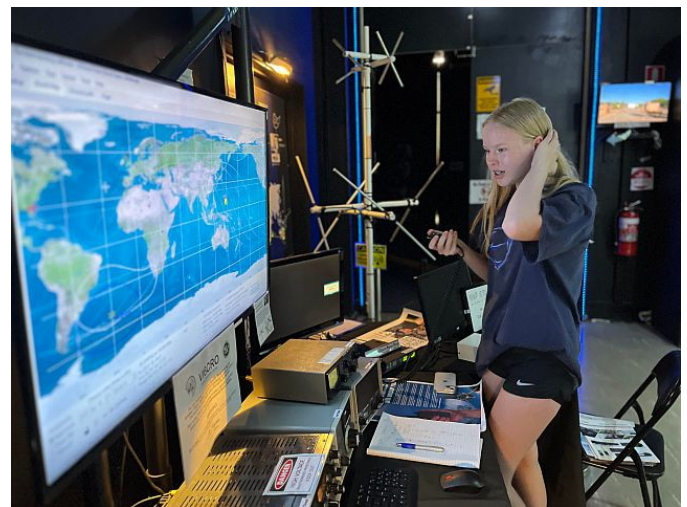
It turned out that the Museums internet was so fragile that in classic VDSL style it would reject any



Dan's Son Chris meets UK Astronaut Tim Peake

80-20m interference by promptly terminating connectivity.

As a result the VK6CRO remote operated by the group, was carefully managed to avoid problem



band areas and higher than 50w output on safer bands. Now I thought, I know how to fix that, I'll do what worked at home where my 80m loop runs mere meters from our NBN line, I'll install a notch filter between the modem and copper line, fooling it into avoiding the frequencies we want to operate on. But that was very much not an option as the Museum needed all of the band width it could get.

So, we arrived even heavier, toting an extra 100+m of low loss coax. The solution I hoped would work was to get our G5RV as far as possible away from

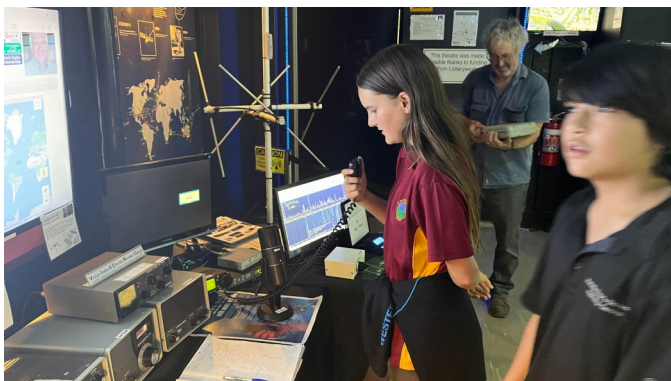
the museum.

Luckily, we found an option. Somebody had left a handy 97 foot dish idly laying around, so we quick smart hoisted one leg of our antenna up into its infrastructure, with the other end tied of to a shrub we shall call a tree. With the coax grounded just outside the museum in lieu of a proper ground on the radios we crossed everything and gave it a go.

Success! Full power out on 10, 15 and 20m no problem at all, however in the spirit of harmony, we didn't push it any further down the band.

The satellite rotator elevator was next, strung up onto an Ibeam (formerly used as a loading crane) and with some hilarious attempts at being a machinery operator from Phil we hoisted the 12-1200kg rotator elevator plus antennas up onto the building, much to the amusement of some early punters.

The doors opened and guests poured in. 150 in the first day, the volunteer staff looked knackered. Soon however we were peaking at over 300 visitors per day.



VI6CRO activated, sort of - we started two days early and it took all of that to get most of the wrinkles out.

The station was a Hit! Young and old came and participated with contacts around the world. The morse key was on fire thanks to Michaels Arduino displaying every 'T' typed. Yes, turns out everyone can do a 'T' and perhaps an SOS.

What amazed me was how almost everyone gravitated to the FT101 station. A 12-year-old when asked, told me he wasn't at all interested in the

SDR, he liked Retro gear.

The other big hit was Hank "King America 3 Buy More Sauerkraut" whose QRZ page opens with the statement "Go Away, I don't hear you when you're not transmitting!". Hank entertained young and old with his brash American drawl and witty come backs. He was a god send, coming to us over All-star through the VK6CRO 2m node.

So why VI6CRO? Well Bob from WA Amateur Radio News (the club that paid for the call sign and printed brochures), thought it an excellent use of the special event prefix "VI", along with the NASA era call sign of CRO for Carnarvon. It worked really well.

Lastly, did anything really go wrong? Not really, apart from getting a surprise visit from Tim Peake, the UK's first Astronaut to spend time on the ISS.



Tim of course asked, have you made contact with the ISS yet? I hung my head in shame, No Tim.

Then I threw Phil under the bus... "Phil hung the antenna upside down!" (wasn't his fault we couldn't trim it using software calibration).

To be fair we over prepared, we over equipped and we had a brilliant time and in Phil's words, the punters loved it!

Special thanks to everyone who contributed to make VI6CRO a success.

de Dan VK6NAD





VI6CRO

Carnarvon Museum Amateur Radio Station



Operation Schedule 17th-23rd April

NOAA Weather Satellites mornings from Museum opening till around 11am

ISS & Amateur Satellite repeater coms will vary depending on angle of pass and availability of operator

Global Short Wave Voice Comms from 1-4pm daily subject to availability of operator.
Operating around 3.605, 7.148, 14.200, 21.200, 28.490Mhz

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Antennapalooza 2023 Wrap

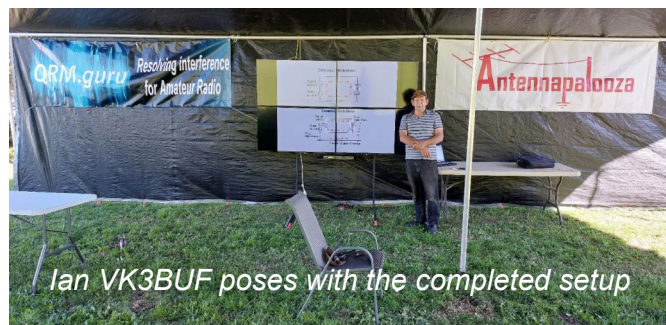
By Ian VK3BUF with contributions by Bob VK6POP

Robert Heinlein, the famous science fiction author, once wrote 'Climate is what you expect, Weather is what you get'.

This certainly applied to the 8th Antennapalooza event. We had warm, fine weather, cloudy cool weather, cold rainy weather, heavy rainy weather and after lunch it started again. It seemed like that, but those coming to Antennapalooza were not to be deterred.

Gathering

A good number of visitors congregated at Drouin West, about 100 Kms East of Melbourne, on 15th and 16th April, for an Amateur Radio field weekend of socialising and technical presentations. With heavy weather forecast, the intrepid crew drove down the grassy slope and set up their accommodation for the weekend, then erected their antennas.



Ian VK3BUF poses with the completed setup

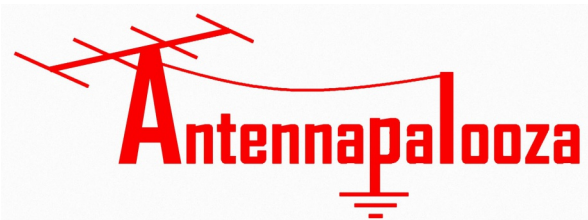
There was a good attendance, with 53 visitors under canvas for the lectures on Saturday. Despite the threat of bad weather, the first day was quite mild, with no rain until later in the evening.



Unfortunately, on Sunday there was a 25mm dump which made the path off the land pretty slippery. It looked like someone had tried to put out a grass fire from an aircraft, using only chocolate pudding. With a little help, everyone managed to escape from the paddock.

Presentations

Thanks to those who gave presentations. They were all interesting and well presented.



- Trevor VK3TWC and the High Altitude Balloon team from the EMDRC, describing both how and why this work is so important.



Michaela VK3FUR and Geordie VK3CLR for their help. Michaela gave an excellent presentation on the logistics of reliable Outback communications (and at one stage helped to save the pavilion from imminent collapse.) Select **HERE** for the video.

- Scott VK3KJ, WIA President spoke about remote station operation and how this is changing the hobby. Scott kindly paused while we tipped water from the roof with the end of a broom.

- Bob VK6POP, RASA Vice President and PerthTech coordinator, who flew in from W.A. to talk about portable ops and whom I worked like a dog in setting up and taking down pavilions and anything else that looked difficult. (From Bob: I



have the scars to prove it – see comments below).

- Mark VK3PKT demonstrated how a modern off-grid shack on a tight budget is both feasible and advantageous.

- Phil VK3VB explained how the Reverse Beacon Network is an amazing aid for DX operators, then



proceeded to take an envoy of visitors into the next paddock, where the actual RBN station that supports Victoria is situated.

- Bob VK3XP demonstrated how 3D printing can be



a direct aid to Amateur Radio Escaping Your Comfort Zone

It's no secret that lots of Amateur operators are piling on a few years of age and its common to seek out a few comforts. However, it is an escape from these comfort zones that's really needed.

Sure you can stay at home and whisper into a microphone, or press 'Play' on another YouTube tutorial. That's the comfortable way. If you really want a memorable experience, to get out, to make new friends and say hi to old ones, you have to leave your chair behind and become a part of the experience.

Antennapalooza is all about getting out there, facing the elements in the middle of a field and then joining the action.

Sometimes it is difficult to gauge reactions to an event, but when visitors are pulled from a sticky



The Other Magic Band – 17 Metres

By Chris Chapman VK3QB VK9NT

Norfolk Island

19 March 2023. 0927 local, (UTC +12)

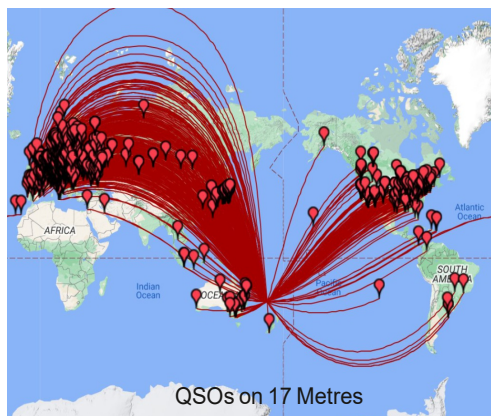
Following a late dinner, I settled in behind the Elecraft K4D – my first real session and 17 metres appeared to be showing some life. CW was the mode. Begali Adventurer was the paddle. Scotch and ice was the drink. My K4D arrived about 10 days before we left, so other than some basic orientation, I hadn't really used it in anger.

I had a great run over seven hours with two 30 minute breaks, and almost 600 QSOs, starting at 0927UTC (2127 local time) with G4HVC.

The run was mostly EU (Europe) with some NA (North America) at random intervals. There were also two 5-10 minute periods where I thought the band had closed, and then without warning, the next wave of callers appeared.

I tried to maintain a rate of between two to three QSOs per minute at 23-27 WPM. Nothing earth shattering but steady enough to maintain control and accuracy.

Now and then a familiar callsign and a quick exchange of pleasantries, giving a nice variation to the standard "<callsign> 599 tu" format.



With no apparent rhyme or reason there would be a short opening into North America, then back to EU.

As expected, a few VK but only one solitary ZL peppered the log. Conditions were good. I rarely needed to seek clarification of callsigns and signals were both strong and steady.

No AF other than EA8 and only four into SA – both

tricky paths from Norfolk Island.

Constant. Consistent. And the pileups were manageable. The waves were quite measured – there wasn't too much of a frenzy. I was surprised that I was able to maintain a reasonable rate over an extended period. At 1127 UTC I took a 30 minute break.

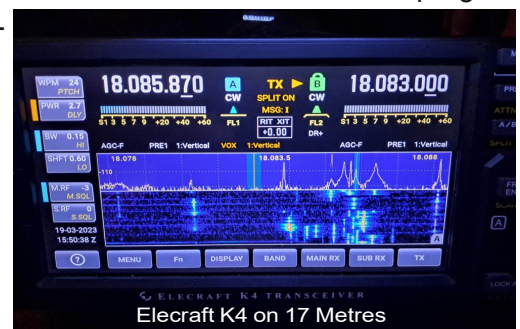
Some observations about the K4D.

Lovely tight filters. Very sensitive. Very nice audio and even with the filters closed tight there wasn't the inherent ringing that I hear in other popular amateur receivers.

The silent tx/rx switching reduces op fatigue. The user interface is intuitive and easy to use. All the knobs and buttons are well laid out. Backlit keys would be nice. A small LED bar-lamp gave sufficient illumination

Patrick VK2PN brought his K3 and K-Pod. He

was asleep, so I borrowed the K-Pod – nice. Now I've ordered one.



Back at 1203 utc and EU continued.

By 1350 utc I started getting JA and more east, but still plenty of EU. Finished at 1628 utc (4.28 am local time) Alan VK6CQ was still hammering away on the FT8 station.

I had a bit of a chat and debrief with Alan for an hour to decompress and hit the sack just before sunrise.

Don't discount a resonant vertical with 24 radials. If you worked us on 17 metres, that's what we were using. It worked really well.

73, Chris VK3QB
CW Ops #2949

Clubs List Update

As a service to Amateurs and potential new Amateurs, RASA has a list of Australian Amateur Radio Club contacts available on its website, VKRadioamateurs.org.

One of the most difficult things to maintain is a list of other people's contact details, and the best way to keep these up to date is to invite the owners of the information to check the listing for their club, and to advise of any changes needed.



While we're at it, we'll make a small but significant change to the list - we'll put live links on the email addresses, so viewers can click on the link to commence an email to the club.

To make this process easy for you, there's an online form which asks you three things - Which State or Territory, The Club Name, and the email address. Simple. And it should only take a few seconds.

Start Here

To check your listing, see [HERE](#)

Then

Click [HERE](#) to access the online form.

You'll be asked for your email address (email address of the person making the updates) so that your information can be sent to you to check, then update your club details.

Done. Thanks for updating your club information at vkradioamateurs.org

The VKREGS.INFO website provides a guide to the regulations governing the hobby of amateur radio in Australia.

It is a joint publication of the Radio Amateur Society of Australia (RASA) and the Radio and Electronics School (RES).

VKREGS.INFO

Australian amateur radio regulations

You can read and learn about the regulations on the website, or download a complete pdf guidebook version. In addition to discussion on the regulations, there are segments about operating procedures, the phonetic alphabet, Q-Codes, Electromagnetic radiation and bandplans.

Note that the Foundation exam uses a subset of the full regulations detailed here, and if you're looking at the site as preparation for an assessment, you should be guided by the Foundation syllabus and any course of instruction you may be undertaking to determine the appropriate regulatory elements to learn. Like all RASA resources, this guide is provided at no charge to the amateur radio community, however donations are welcome. The site: <http://vkregs.info/>



After reading and reflecting on RASA's Strategic Review, as encouraged by the website, I pass on some of my reactions, in the hope that they may be of some use in subsequent discussions.

Relationship with the regulatory authorities.

Any group interacting with the ACMA who wish to be taken seriously must have the following characteristics:

1. An appreciation and acceptance of the aims and methods of the ACMA.

From the ACMA website:

"We regulate communications and media to contribute to maximizing the economic and social benefits of communications infrastructure, services and content for Australia."

These days, that benefit tends to be measured in dollars; from the ACMA's perspective, spectrum is a valuable commodity, and their task is to maximise the dollars that can be raised from its use.

2. An impeccable technical background.

The ACMA has no technical expertise, and sees no need to acquire it, preferring to employ consultants for that purpose. So any group working with them must recognise that they will be dealing with experts whose employment depends on the accuracy of the information they provide; the group making presentations must be at least as competent.

3. Unity of Purpose

With unity of purpose, those negotiating can speak with one voice on behalf of the group or organisation they represent. Groups which display any divisions among themselves tend to be dismissed; united you're in with a chance, divided you are no longer welcome at the table.

There are many implications arising from all of this, some of which are obvious, others a bit more subtle. Dealing with QRM, for example, was once seen as a statutory requirement; these days it

tends to be treated more as an impediment to raising money from the spectrum in question.

So when the spectrum involved is not generating income the QRM is seen more as a civil dispute between parties, with the ACMA simply playing an intermediary role between them. See, for example, the situation with the LIPD band on 433MHz.

The amateur community must at least recognise the situation, and do the best we can to live with it. Which is probably a significant realignment for many.

An old description from the Act, is the "Amateur Service". In reality, the term "Service" is an ITU term, and is applied to every service using spectrum, EG CB Service, Broadcasting Service, Marine Service, etc., and in most cases this is an apronym, but perhaps not Amateur Radio.

Again, from the ACMA website, Amateur licenses are intended for hobby radio and technical experimentation. From the Act, back in 1990:

"The Amateur Service is a radio communications service established for the purpose of self-training, intercommunication and technical investigations carried out by duly authorized persons solely with a personal aim and without pecuniary interest."

There's a lot of emphasis on STEM in the educational system, so perhaps the self-training idea is well worth preserving.

What else can we claim as a benefit to society? Do we provide services in times of disaster? There should be a conversation about that.

Perhaps we should emphasise the experimental side. Very little research is conducted just for the sake of seeing what happens; most labs work under the general motive of "will we be able to sell it?".

The Amateur Radio community is in a unique position to try something for the sake of it. Without that element of curiosity and "chance it and see" the whole industry suffers.

Pushing the experimental side is more likely to gain broad support across the industry than simply claiming that we are here because we've always been here. (...next page)

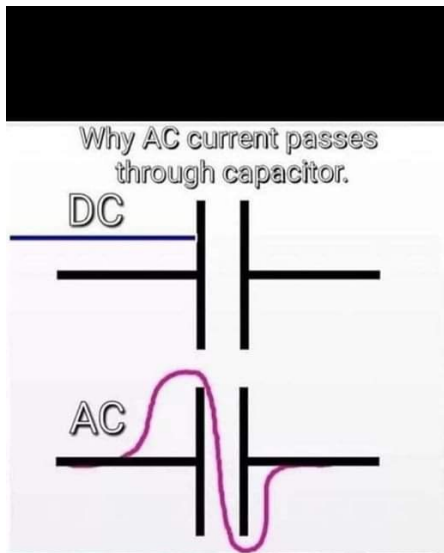
Resources for clubs and newcomers.

Clubs are well positioned to introduce and support newcomers to the hobby, and to achieve this, they need readily available resources with which to kindle interest and develop the skills and knowledge of newcomers.

Given a unified approach across the hobby, it may be possible to explore, develop and implement the ideas, tools and resources to attract and develop newcomers, to successfully negotiate with the regulator, and to raise the profile of amateur Radio in the wider community.

Name withheld by request.

Something to Smile About



OKAY LOUIE, EXPLAIN TO OUR FRIEND HERE WHAT HAPPENS TO PEOPLE WHO INSIST ON TUNING UP ON-FREQUENCY ...



VK3RASA RBN Update

By Phil VK3VB

A few months ago the VK3RASA RBN PC was replaced with a refurbished HP device hoping this would be the end of the reliability issues. All was well when installed in the house, however when it was powered back up in-situ we had to reload windows.

VK3RASA
REVERSE BEACON NETWORK
Located in Drouin West, Victoria, Australia.



It then ran for a month until a reboot was required, when windows needed to be re-loaded again. We determined that the hard drive was causing the problem, and a Solid State Drive was installed to replace what was determined to be an old laptop HD from the first laptop ever built.

Since this replacement the PC runs without an issue, and the system has only required infrequent attention when the PC has lost communication with the SDR (Red Pitaya). Between the PC and the SDR is a gigabyte switch to ensure we have a fast, reliable connection.

Now that the system is stable I am working on calibrating the frequency accuracy... This is best done after 2-3 days of large activity as it compares the frequency of spots against the frequency reported from known "accurate" RBN's.

We also now have the config setup so half an hour before sunset 160m and 80m are switched in and 10m and 6m switched up... half an hour after sunrise the reverse happens.

Editor's Note: The Reverse Beacon Network is a clever idea. Instead of beacons actively transmitting signals, the RBN is a network of stations listening to the bands and reporting what stations they hear, when and how well.

Learn more about the RBN at <https://www.reversebeacon.net/>

ARRL Card Checker on Norfolk Island

By Chris VK3QB

In a somewhat odd chain of events, we found ourselves on a South Pacific Island with an ARRL Card Checker from VK3 checking off QSL cards for another card checker from South Dakota, USA.



A couple of weeks prior to leaving for Norfolk Island I received an email from Matt K0BBC informing me that he was an ARRL Card Checker and that he'd be willing to validate any applications for DXCC. As it turns out, Luke VK3HJ (also an ARRL Card Checker) had recently validated an application for me.

I thanked Matt for his kind offer and jokingly suggested that as Luke would be on the island he could check off any cards that Matt may have. Matt responded immediately, advising that he'd be bringing some cards and an application form as his closest ARRL Card Checker was about 350 KM from his home QTH.

So, whilst it was a 12,500km journey for Matt, it sure was convenient... and that is how two card checkers came to be on Norfolk Island at the same time. Thanks Luke for your 2,339km journey to Norfolk Island.

The Magic Band – Six Metres

By Chris Chapman VK3QB (operating as VK9NT)

Norfolk Island, 23 March. 0501 UTC, local time +12 hours, 50.101MHz

Elsewhere in the magazine is a similar story recounting our experience on 17 metres. Six metres - the magic band - is open often, but when it is, you sure do know it.

Luke VK3HJ had been relaxing with a beer and a book whilst I was preparing dinner. It was a chickpea and cauliflower curry from memory. Feeding four DX'peditioners all working to varying schedules isn't as hard as it may first seem.

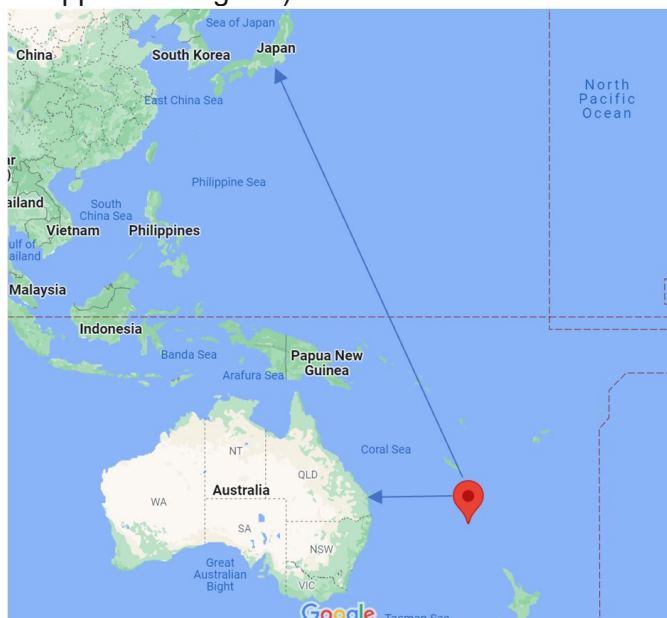
A busy DX'peditioner is a hungry DX'peditioner. A busy DX'peditioner will most likely be working to unnatural schedules; sleeping odd hours; grabbing a cat-nap when the opportunity lends itself. And eating when food is on offer. Just about any reasonable meal sitting on the stove ready to serve at a moment's notice will be well received.

The VK9NT cooks, Patrick VK2PN and I would start thinking about dinner options early each afternoon, in the high likelihood someone needed to make a dash into town for supplies.

Just before 5pm local time (0500 UTC) Luke settled into the chair in front of the Elecraft K3 with a small glass of American Honey Bourbon Whiskey and ice. The four element beam was pointed in a westerly direction back towards the East coast of VK. We figured the band would be open and there would be a hoard of VK six-metre enthusiasts (nuts?) looking for an elusive QSO with Norfolk Island.



I went back to preparing dinner. Alan was working FT8 on 17 metres (the other magic band) and Patrick was pitching in with meal preparations. I heard Luke mutter something about getting the party started (as he sipped at his glass) and then the all familiar dits and dahs drifted into the kitchen



“CQ CQ de VK9NT VK9NT”. Six metres. The magic band. We all waited. Where was the magic?

And then, at precisely 0501 and 51 seconds UTC the callsign JA1RFF literally blasted into the radio room, kitchen and surrounds. 599 plus. The band was open to JA. The beam was pointing to VK and we were open for business. We all knew what was going to happen next. We'd prepared for this.

Patrick dropped the onion and knife and dashed out to swing the beam in a more northerly direction. Luke donned the headphones, adjusted his operating position, and I topped up my glass of red wine.

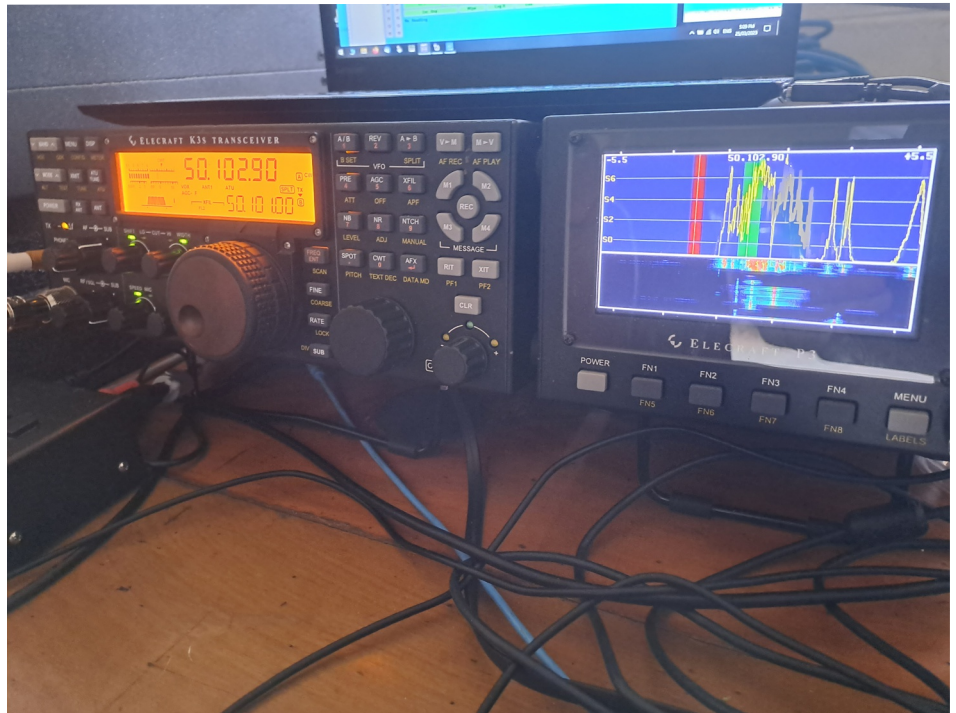
Alan looked up from his FT8 station and calmly announced to no-one in particular that six metres was open to JA.

For the next three hours and 24 minutes Luke held the rampart and added 339 QSOs to the VK9NT log book on six metres. And they were all JAs! At 0825 UTC Luke finally announced he was hungry - and I suspect he needed a pee as well.

By 0827 UTC we had executed an operator changeover.

Yours truly, VK3QB had swapped the headset, adjusted the seat and paddle position and was ready to (seamlessly?) continue working the pileup. I picked up where Luke left off adding another 81 JAs to the log... and one HL. Thanks Kyu!

By then we were well into darkness and the band had been slowly failing for some time... signals were becoming watery and QSB was aggressive. Finally at 0917 and 29 seconds I worked a very weak JG3IWL. Our last JA for that run.



So thanks JA1RFF Hiro-san and JG3IWL Hisao-san, and the 425 operators in-between for helping us have some fun and add 427 CW QSOs to the VK9NT magic band log.

As is always the case, JA operators (like all CW operators) are some of the nicest and most courteous operators you could meet. If we copied a partial and asked for confirmation the pileup would dutifully stand to one side and allow their fellow chaser to clarify his/her callsign.

This short video demonstrates what it was like at the pointy end. https://youtu.be/0b35_6hpv-g

DX'peditioning is a load of fun. It's even more fun when you have a group of great people who work well together. Each operator was able to get quality time working pileups like this one. Or, as would be their desire, to work a longer shift with a slower QSO rate.

Our DX'peditions are all about teamwork and ensuring everyone gets a fair go. And it goes without saying, we hone and develop our CW operating skills.

73, Chris VK3QB and VK9NT Team
CW Ops #2949
FISTS 9085

Enjoy the Pleasure of Listening from a LOOP ABOVE GROUND (LAG) Antenna

By Jeff King ZL4AI <jking2603@gmail.com>

In an urban area, are you fatigued by listening to S3 to S6 of hiss on low bands? Would you like to make a small Loop ABOVE ground antenna for \$70 that continuously reduces S5 of hiss to S0 and provides outstanding no noise listening?

The transformer is wound on a Fair-Right #73 material binocular core [1]. The #73 material is optimized for frequencies roughly in the range of the 160m through 30m amateur bands.

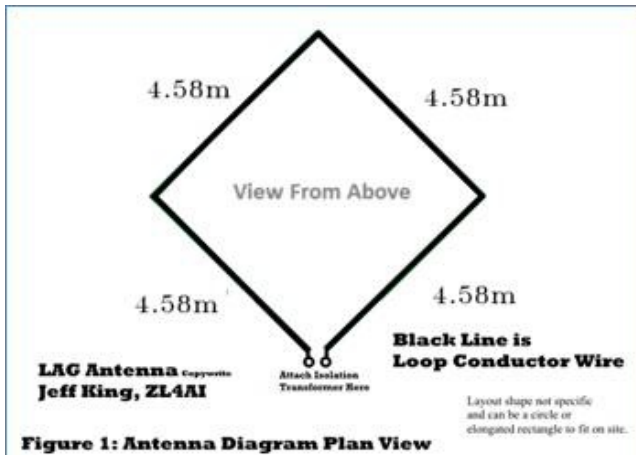


Figure 1. Antenna diagram plan view

Operating Techniques

You need the following devices:

- A switch to flip between an A/B to listen on this loop / listen on main antenna, and
- A manual antenna tuner to maximise the weak signal on 80, 40, 30, 20, 18, 15.

Antenna tuner settings are very sensitive and need to be set precisely. For convenience, record the following settings at the centre of each band: receiver capacitance, inductance, transmitter capacitance.

Then when returning to that band, just re-set those

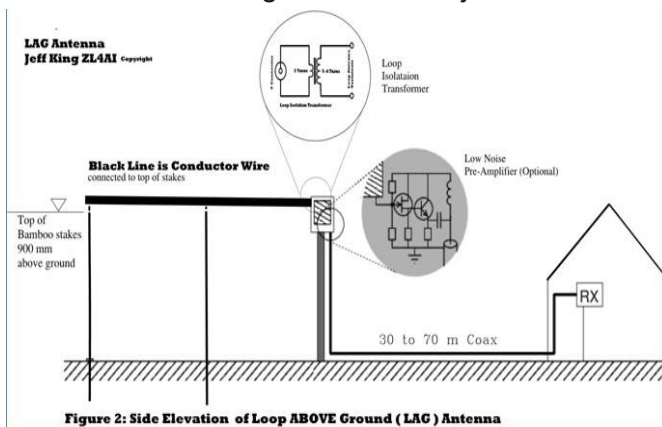


Figure 2. Side elevation of Loop Above Ground (LAG)

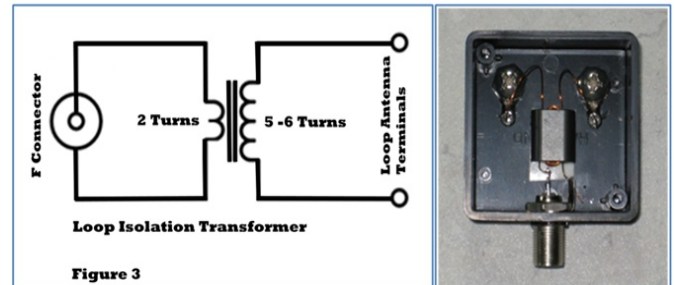


Figure 3. Loop Isolation Transformer

recorded values.

Cost of the materials

This list below gives representative values for the cost of the required materials.

30m of 50/75 ohmcoax - \$30 at Jaycar

20m of copper wire - \$20

#73 Core - \$3.80at Integrated Electronics Ltd, <intelec.co.nz> (In VK try Minikits.com.au)

Eight bamboo stakes - \$8.

Hears DX better

Ninety-nine percent of the time the LAG hears any signal you can hear on another antenna which has noise. The LAG has an outstanding signal to noise ratio and enables a weak signal buried in the noise to be brought out and comprehended.

ZL4AI tested the LAG during the European Union DX Contest on 5th Feb 2023. Each signal from Ukraine, Russia, and Kyrgyzstan was often buried in the noise and very hard to understand. On the

Height mm	Voltage out of Antenna	% of Voltage at 900mm
1	0.087	17
100	0.240	48
500	0.363	74
900	0.500	100

Table 1: The output at the antenna for different

LAG, they were easy to understand.

Best Height

Find the height that suits your QTH. To get a signal that does not require a pre-amplifier place the antenna wire 900 mm above the ground. The signal decreases in strength as the wire is moved closer to the ground, see Table 1.

You can raise the loop wire higher than 900mm.

The loop can be on the ground and pinned on grass. After a couple of months, a lawnmower can pass over it.

But placing the loop on the ground will require a

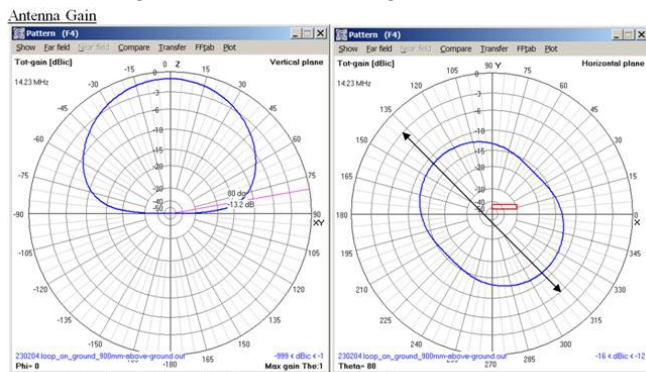


Figure 4: Output: Cross Section and Plan View

Figure 4. The gain in dBi. The plan view is at 10 degrees of elevation.

pre-amplifier to give an S meter reading.

Antenna Gain

Figure 4 gives the cross section and plan view for the gain. The gains were calculated using 4NEC. The plan view is for 10 degrees above the horizontal and is close to circular with a 3dB variation. The maximum signal is on the line between the feed point to the corner diagonally opposite the

Freq. MHz	0 deg dBi	10 deg dBi	5 deg dBi
15	2.23	-11.9	-16.3
18	1.16	-12.2	-16.7
20	-1.02	-13.2	-17.7
30	-5.94	-16.6	-21.1
40	-12.3	-22.6	-27.4
80	-24.5	-29.9	-34.0

Table 2: The antenna gain in dBi at different frequencies and take-off angles.

feed point.

Table 2 gives the gain at the antenna in dBi for a selection of frequencies and take-off angles.

Do you need a pre-amp?

No, the preamp in your transceiver should have 20dB of gain and be sufficient to lift weak signals to levels similar to your normal antenna. The outside of the coax also picks up noise. You can eliminate noise on the coax by placing a low noise pre-amplifier where the coax connects onto the LAG. An outside pre-amplifier is required to obtain the optimum low noise performance.

Why have I not heard about this before?

In the 1970s, hams got into the mindset of thinking that a Yagi gave the best signal. This mindset stopped hams from erecting separate listening antennas. Everybody accepted that you should listen to noisy signals with one antenna.

How does the LAG reduce the noise?

When a horizontal antenna is installed very near the ground surface, its primary response is vertically-polarized, rather than horizontally because the ground reflection cancels essentially all of the horizontally-polarized wave response. The elimination of the horizontally-polarized waves eliminates the noise.

Just attach a loop of wire to a length of coax and put it outside. Listen, switch back and forth between antennas and you will be convinced to develop and install a LAG permanently.

Other options in order of effectiveness are

- 1: A QRM eliminator device with a second antenna to receive noise.
- 2: A small rotatable loop with an expensive low noise high gain amplifier \$600.
- 3: A Beveridge antenna if you have urban land for 150m by 150m wires.
- 4: A noise reduction device with upper / lower cut off filters, and /or Digital Signal processing and /or peaking filters.

References

www.mouser.com/datasheet/2/150/2873000202-474592.pdf

For further information including information on a similar antenna, see <http://www.kk5jy.net/LoG/>

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Dynamic Microphone For an Icom Radio

By Bob Bristow VK6POP

I've used a few ICOM transceivers in my time; and my main rig for HF is the trusty old IC746. This is a sturdy radio that's been around for a long time and still works as it should. Although I have the ICOM SM20 Desk Microphone, I also own several good quality stage mics, and got to wondering how one of those would perform on the 746.

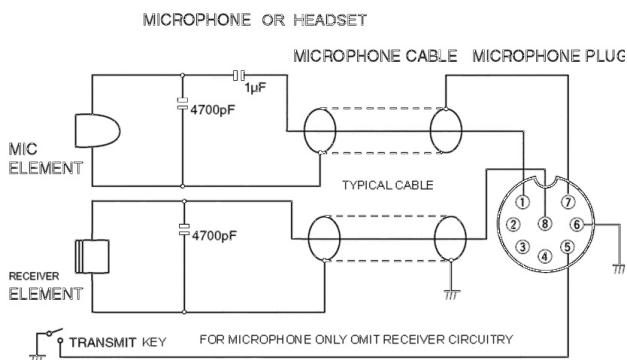
I was aware that the Icom rigs utilise electret microphone technology, and therefore phantom power is supplied to the microphone element. So there was some work to be done to adapt the dynamic microphone to work with the IC746.

My first port of call was, naturally, Google, and I came across a design idea written by Adam VA7OJ/AB4OJ.

By following Adam's descriptions of what he did to adapt old handheld dynamic microphones for the Icom, I was able to produce what I've called a breakout box, because it does far more than adapt a dynamic microphone for the Icom.

I could have, as Adam did, fitted the capacitors inside the mic, however I would then have lost the option of using that mic elsewhere, or substituting another mic.

This is the circuit that I started with, and which I adapted for the breakout box.



The 1 μ F non-polarised capacitor is used to block the DC phantom voltage to the microphone element. The design also includes a 4700 pF decoupling capacitor across the microphone and speaker element terminals.

But There's More

What I Discovered when I looked up the

microphone pinouts for the 746, was that the 8 pins did some wonderful things, and as I was going to

make up a cable with the 8 pin plug on the end of it, I decided to add more functions to the little box project.

What I ended up with was a box with:

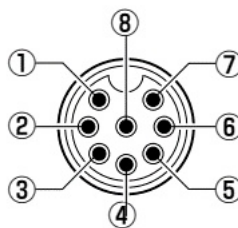
- An XLR socket and a 6mm mono Phone Socket for connecting a dynamic microphone.
- A 3mm stereo socket for headphones
- A 6mm mono Phone socket for PTT. I plug my foot pedal into this.

I made the foot pedal up several years ago using a floor pedal from Jaycar, a piece of scrap

cable, and a 6mm mono phone jack.

These are easy to wire up. They have three wires, and depending on which you use, it can be made to be normally open or normally closed. For my radio I needed normally open, and the switch in the foot pedal is connected to pins 5 and 6 – PTT and Ground (PTT).

CONNECTOR INFORMATION (front panel view)



- ① MIC input
- ② +8 V DC output
- ③ Frequency up/down
- ④ Main readout squelch switch
- ⑤ PTT
- ⑥ GND (PTT)
- ⑦ GND (MIC)
- ⑧ AF OUT (varies with [AF])

Parts List

You'll need all of this to build a box similar to mine:

- One 1 μ F non-polarised capacitor – I got mine from Altronics, Part No R3037B
- Two 4700 pF Ceramic capacitors
- One 8 pin microphone plug
- One 3mm Stereo phone socket (or mono if your headphones have a mono plug)
- One XLR Female panel mount socket and/or a 6mm phone socket (your choice – either or both) for Mic input (See Diagram 2 for connections)
- One 6mm Mono Phone socket for foot switch
- A short length (depending on where you want to locate the box) of cable with at least 6 conductors.
- A box of some sort to house the components.

Construction.

I'm not going to give you a breathe in, breathe out

set of instructions on how to build this thing. I will give you some tips though. Get yourself a step drill. You'll thank me later. You get nice round holes with the burr taken off.

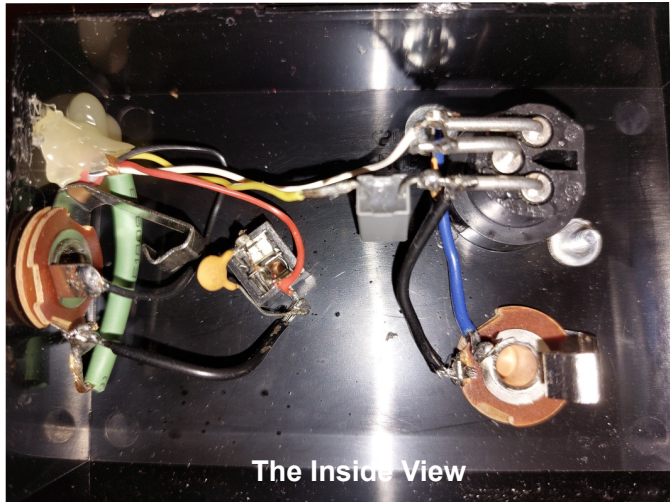
Keeping in mind the original circuit in Diagram 1, map out on your enclosure where you want the sockets to be mounted, and the cable entry point.

Diagram 2 shows how to couple an XLR socket with a Phono socket. This image shows the layout in my project.

It would pay to check all parts of the circuit for continuity before plugging it in live for the first time.

On Air Performance

Stage microphones are great because they are built for screaming rock stars. I'm no rock star, however I do tend to talk louder on air when I get



The Inside View

excited or am having trouble getting through. So it's difficult to overload the stage mic. Reports from other stations say that the audio is good.

On one occasion, after hastily reassembling my station following a contest weekend, I found the SM20 desk mic before I found my breakout box, and several people remarked on the poorer audio quality, "not crystal clear like it was last week".

Have a Go.

My project was about using a dynamic stage microphone with my Icom rig. You may want to adapt a handheld mic for use on yours. The principles used are simple, utilising small components - in fact the only obligatory components are the capacitors.

Acknowledgement

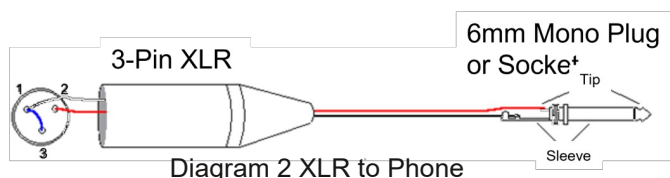


Diagram 2 XLR to Phone



The Foot Pedal

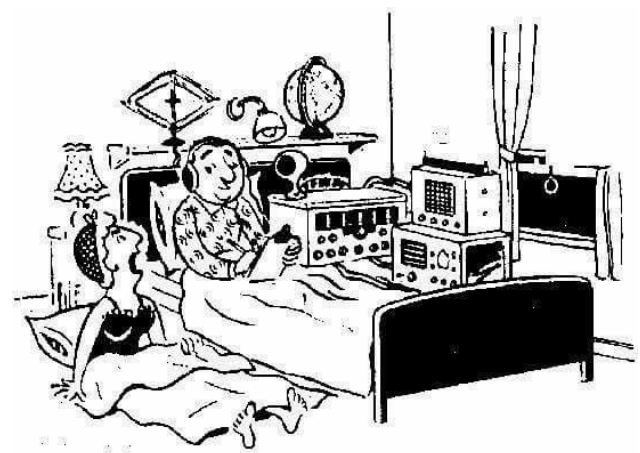
Thanks to Adam Farson VA7OJ/AB4OJ for giving permission to use his diagrams and circuit idea. His original article can be found [HERE](https://www.ab4oj.com/icom/ic7200/mic.html):
<https://www.ab4oj.com/icom/ic7200/mic.html>

My Shack

Introducing "My Shack", a segment where we invite you to submit a photo or two, and a one-paragraph story about your shack.

We're interested in photos/stories of shacks of all sizes and shapes. We're not into "the bigger the better", however if you think your "bigger" shack is worthy of a story, by all means send it in.

Remember to make the photos big and clear. We can crop and shrink easily enough – leave that messy stuff to the editing team – just send your photos and short story to us.



Your Shack could feature in future editions of QTC Magazine, so get snapping now.



WE'RE ON AGAIN - 2023

27 – 29 OCTOBER

Set the date aside in your calendar. The venue is Gidgegannup WA.

We're looking for new presenters – visit our website VK6.NET to learn how you can make a presentation at PerthTech 2023

**PerthTech
2023**



Scan the QR Code to learn more about PerthTech 2023 or go to vk6.net



An Introduction to the WWFF Programme

The World Wide Flora Fauna (WWFF) program is an international amateur radio program that encourages portable operation from designated parks around the world. The aim of the program is to draw attention to the importance of protecting nature, flora & fauna and to encourage the development of radio skills, especially in portable operations.



The Australian 'chapter' of the WWFF program is known as Australian Flora & Fauna and is abbreviated as VKFF. It is an authorized partner of WWFF and a recognised National program of WWFF. The VKFF program commenced in March 2013.

an

You can take part in the program as an Activator, a Hunter, or a Short Wave Listener. Hunters are those who work the park activators, and you can track your progress in the WWFF program via the WWFF database, known as Logsearch. You can also apply for awards through Logsearch, all of which are for free.

There's more information on the WWFF Australia website: <https://www.wwffaustralia.com/>

If you have any queries about the VKFF program, please send an email to: wwffaustralia@gmail.com

73, Paul VK5PAS, VKFF National Co-Ordinator.



Amateur Radio is Facing Fresh Challenges

RASA is trying to meet them, but it needs your help.

By the RASA Board

The Radio Amateur Society of Australia (RASA) was formed in 2018 - and not by accident. The Wireless Institute of Australia (WIA) was the only national voice for Amateur Radio in Australia, and it wasn't a very good one. Mistakes were made. Big ones.



Concerned members tried to help and lend their expertise, but were rebuffed, ignored, and even ridiculed. Then as now, the WIA relied heavily upon volunteers to carry the load. Some important jobs had derailed and those responsible could not be reigned in. Many quality WIA volunteers and members became disenfranchised and quit or drifted away.

When the examination and licensing Deed with the ACMA was re-tendered, the WIA submitted a 130-page document containing verbose and drawn-out responses, a symptom of a wider problem too large to convey here. (By comparison, the Australian Maritime College's fifteen-page submission was concise, compliant and successful.)

Since 2015, WIA membership has fallen from 4,500 members to around 3,000 in 2023. These numbers speak for themselves. These observations are not intended to be disrespectful. Many RASA members have remained WIA members. There is a role for the WIA if it can do better, but repeating past mistakes is not the way forward. Amateur Radio is going to need quality cooperation between all the players in order to thrive. Representative bodies need to regain the respect of the Australian amateur community so skilled and experienced amateurs will again volunteer their time.

This brings us back to 2018. The RASA was created as a vehicle of representation to do the work that the WIA could not or would not do. RASA has engaged professionally with the ACMA. It has taken the time to visit many Australian radio clubs, talking *with* Amateurs, not *at* them. It has tackled the issue of radio interference head on, helping Amateurs to acquire skills to help themselves. RASA engages with newcomers to the hobby, by treating them as assets, and not as liabilities.

If you are reading this now, it's because you have opened QTC, the free RASA magazine that's produced quarterly. As a guiding principle, everything that RASA produces including the web resources, guidebooks, advice, and information is free to all, not just our members. Amateurs from across Australia have joined and contribute to RASA, not because they have been forced to, but because they want to. They are concerned about the future of Amateur Radio. By helping RASA they are helping their own future.

RASA's operational costs are low, with no salaries or fixed assets. We extract maximum value from every dollar we receive. Over the past year we ran a trial, operating entirely from donations. It became apparent that with more funds we can do more work. Now we are inviting non-members to pay \$10 and join RASA for the first time, and inviting existing members to renew their membership for \$10. The official end of the financial year for RASA is the 31st of August. Any membership payments between now and the 1st September will last until August in 2024. Any donation above the normal \$10 contribution is certainly appreciated and will be acknowledged.

To join, renew or donate to RASA, visit <https://vkradioamateurs.org/contact/> and follow the instructions.

Dits 'n Dahs

By Chris Chapman VK3QB

Welcome to our new regular column dedicated to CW and Morse code. In this column I hope to answer questions, provide interesting stories, references and guidelines for Morse Code enthusiasts... and of course to demystify our oldest and most favourite mode

It would also be great to attract some newcomers to this fascinating mode of radio communications, so if you've ever wanted to get started, this is the place to be.

If you're a Morse Code operator and would like to contribute to this column please drop me a note. If you have any questions about Morse Code, how to get started, what equipment is needed, again, just drop me a note. We really want this column to be interesting, entertaining and informative.

Topics I'll be talking about in upcoming issues include:

- Your first QSO
- Tools of the trade: Morse Code keys, paddles, bugs etc
- Learning the code from zero
- Skills development
- Different operating environments: contests, ragchewing, DX-ing, Awards
- Morse code transceivers: homebrew & commercial

And anything else that comes across my desk. I really hope that the CW community will get behind this column and share stories from the field.



Let's start with some light-hearted words...

Why do we use 73?

By the mid-19th century, telegraphy was becoming commonplace and telegraphists realised most messages contained similar procedural words or phrases. To save time and reduce operator fatigue, a telegraphists short-hand quickly developed, ultimately being formalised in a Telegraphics Operators Guide in 1857.

In 1857, 73 meant literally, "My love to you." Even though it stood for a flowery sentiment, telegraph operators adopted this code as a way to greet each other on the wire and to wish each other well. 88 was later adopted to mean "hugs and kisses".

Today 73 literally means "best regards".

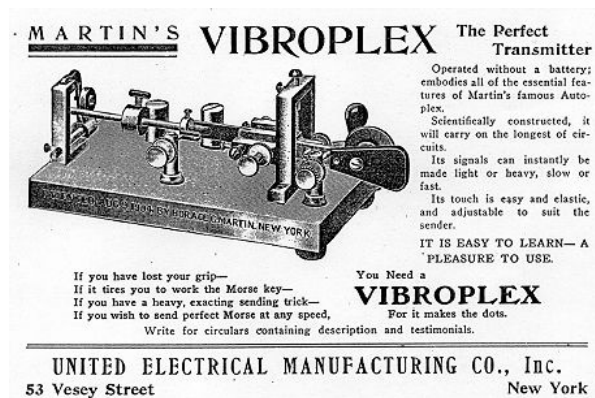
"The best number is 73. Why? 73 is the 21st prime number. Its mirror (37) is the 12th and its mirror (21) is the product of multiplying, 7 and 3. ... In binary, 73 is a palindrome, 1001001 which backwards is 1001001."

-Dr. Sheldon Cooper, (Jim Parsons), "Big Bang Theory"

Thanks David VK3DBD for sending me this little gem. Oh... we Morse code ops know this... but it's "73" not "73s" and not "73's" as I often see and hear in other forums and on SSB.

Here we are over 150 years later and we still use 73, along with a host of other Amateur Radio Morse Code short-hand. Examples include:

- and: es, as in “ant are beam es vert”
- weather: wx, as in “wx is sunny es 28c”
- your: ur
- fine business (or very good): fb, as in “fb ur rig es ant”
- thanks: tnx or tks, as in “tnx for fb qso”
- please: pse or pls, as in “ur name agn pls?”
- break: bk
- see you later: cul, as in “tnx for qso cul”
- see you again: cu agn, as in “tnx for qso cu agn”
- cfm: confirmed, as in “cfm ur callsign”



You begin to get the idea, and possibly also note that many of these short-hand abbreviations (or variations of them) have been adopted in the phone texting and messaging cultures.

I'll keep this first column short and to the point. If you're wondering where to find local contacts during the day, try the FISTS Down Under frequencies

Many members in VK and ZL FDU members hang out on the frequencies listed on our “About us” page. <http://www.fdu.org.au/about-us/>

During the day (at least here in VK3 and the states surrounding us) it seems we have two popular frequencies on 40m. 7.025 and 7.028MHz. Also check out 7.032 where you'll often find SOTA, WWFF or portable operators as well.

As many of us are either retired or working from home these days there tends to be a fair bit of day-time activity – so spin the dial, have a listen.... BUT... put out a call also.

I look forward to hearing from you. Until next time.

73, Chris VK3QB ...-.-

RASA DX Contest

The objective of this contest is to encourage greater participation and activity on the MF and HF bands. The contest is deliberately designed as a long form event (11 months) as many amateurs are unavailable for the more traditional contests held on weekends. It also provides the opportunity for those who like to operate in a more relaxed fashion to still take part in a national contest. This also provides amateurs the opportunity to use their 2x1 Contest Callsigns.



There are no formal exchange requirements for this contest, other than the normal minimum standards for a QSO in each mode. (e.g. exchange of signal reports and name for SSB and CW, and callsign, locator and signal SNR for Digital). For digital modes you must exchange a maidenhead locator, and for SSB and CW you must exchange names.

You get one point per QSO per band/slot/mode. Duplicates are permitted.

Visit our [website](#) for more information.

RASA Insides

How RASA Works

When RASA was formed, we deliberately wanted to guard against entrenchment and complacency. Our rules enforce a turnover of all management team positions over time. It also helps to spread the load.

Of course, one of the consequences of this is that we need to find people willing to stand up and have a go. Fresh ideas are always welcome. It's so true that "The Way It's Always Been Done" may not be the "Way To Continue To Do It" into the future.

If you want to make a difference in a more direct way, we'd love to hear from you, as a potential committee member or as a helper. This is how we are shaping the future of Amateur Radio in Australia.

Drop us an email at info@vkradioamateurs.org

Meet the RASA Team in Brisbane

On the 19th of June, RASA will be making a presentation at the Bayside District Amateur Radio Society (BRDRS). Perhaps we'll see you there. Visitors are welcome.

The RASA Team visits as many Amateur Radio Clubs and Hamfests as practicable. Clubs can invite RASA to one of their meetings or activities. Contact us at the email address above.

RASA at HamCamp in W.A.

On the weekend of 12-14 May, the RASA Vice President Bob VK6POP attended the Southern Electronic Group's HamCamp at Mayanup Recreation Grounds.

The camp was attended by about thirty people - Amateurs and 4WD HF Network members. We hope to have a report on HamCamp in the next issue of QTC. RASA was the only National Amateur Radio body represented at HamCamp.



New to the hobby?

The RASA Welcome to Amateur Radio Guidebook provides an introduction to our hobby for newly licenced Foundation class amateurs.



The book is published digitally. It contains many hotlinks to external websites with useful information.

It is available on the [RASA Website](#) as an Acrobat pdf file suitable for reading on a PC or tablet.

It can be printed if required.

Amateur Radio Welcome Pack

Included in this Welcome Pack are some documents and information sheets to help your students get started.

- Welcome to Amateur Radio Guide Book
- VK Regulations Handbook
- Getting started with Repeaters
- Australian Band Plan Quick Reference Guide
- Interference Resolution (QRM) Process Guide
- Useful Web sites information sheet

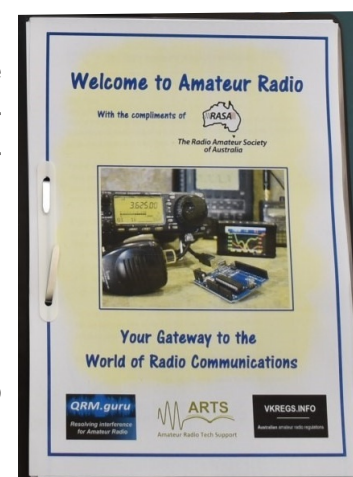
If your club is running a course and would like to provide these resources to your students just send us an email.

This is a free resource for clubs to give to license course candidates.

We only ask that you cover postage costs.

Ask your Club President to email us:

info@vkradioamateurs.org



Updates from Vic Roads on using Amateur Radios when mobile

VicRoads have implemented a whole raft of new road rules to cover portable devices, seat belts and other modern appliances and devices.

What used to be Rule 300 granted a general exemption for CB and 2-way radio while driving. Rule 300 has been revoked.

A review of the new rules shows that it all seems to be “device” oriented. They explain how different devices can or cannot be used.

From this information it appears that Amateur Radio is classified as two-way radio and our exemption remains.

Road Safety Road Rules Amendment Rules 2023
S.R. No. 7/2023

304B What is a *device*

- (1) In this Part, a *device* is—
 - (a) an inbuilt device; or
 - (b) a motor bike helmet device; or
 - (c) a mounted device; or
 - (d) a portable device; or
 - (e) a wearable device.
- (2) A *device* does not include—
 - (a) a CB radio or any other two-way radio; or

[Click Here To Read More](#)

Antenna Launchers (or Arborists tools)

Many amateurs will have seen or heard about the “antenna launcher”. These tools come in varying types from different manufacturers. Indeed, some enterprising amateurs have made their own version.

All of them use the same principle; a sling-shot in one form or another, used to “shoot” a line attached to a weight over a tree for the purpose of raising antennas.

Arborists tools are legal and used by some amateurs. Whatever you use, use it responsibly and lets not abuse the privilege.



<http://www.gazette.vic.gov.au/gazette/Gazettes2023/GG2023S185.pdf>

In part - The Governor in Council under section 8B of the Control of Weapons Act 1990 orders that –

Commencement

This Order comes into operation on the day it is published in the Government Gazette. Definitions In this Order – amateur radio operator means a person authorised to operate a radiocommunications device under the Radiocommunications Act 1992 of the Commonwealth in relation to an amateur licence made under that Act; antenna launcher means a prohibited weapon prescribed in item 16, 17 or 19 of Schedule 2 to the Control of Weapons Regulations 2021 that is – (a) designed for or adapted to erect radio equipment including a cable, line or antenna; and (b) manufactured and intended for commercial distribution.

Exemption: A person listed in Column 1 of the Table is exempt from sections 5(1), 5(1AB), 5(1A) and 5AA of the Control of Weapons Act 1990.



Remote DX-peditions

As technology and global satellite communications have improved, so too have remote stations.

DX-World reported on 11th May that VP6A will be a "Ground Breaking Remote Operation to Ducie Island"

"A total of 14 operators based in North America, Europe and Asia will operate land based remote controlled stations around the clock. There will only be three local operators at Ducie: W6IZT, KN4EEI and AA7JV.

This small team will set up and maintain the stations and operate locally from the nearby boat. They will visit the island once a day to refuel the generators and do any necessary maintenance. In line with the minimum foot-print concept, there will be no camping on the island."



This concept opens many opportunities for future DX-peditions, as well as reducing risks:

- Operators who may otherwise never get a chance to operate from a rare location will now do so.
- Costs will be reduced
- Environmental impacts will be reduced
- DX'peditions will have access to more experienced operators
- Travel and accommodation requirements will be simpler and cheaper.
- Risk to life will be reduced

[Read more here](#)

Ducie Island – Ground Breaking Remote Operation DXpedition to a Rare Entity

VP6A will be on the air from Ducie Island (OC-182) from June 10 to June 24, 2023 (actual dates will be subject to WX). There will be five stations on the air on all bands from 160 to 6 meters, working CW, SSB and FT8.

Following the successful test of remote operations at FO/AA7JV, where over 11,000 remotely operated QSOs were made by five remote operators, VP6A will apply this concept to a full rare island DXpedition.

A total of 14 operators based in North American, Europe and Asia will operate land based remote controlled stations around the clock. There will only be three local operators at Ducie: W6IZT, KN4EEI and AA7JV. This small team will set up and maintain the stations and operate locally from the nearby boat. They will visit the island once a day to refuel the generators and do any necessary

maintenance. In line with the minimum foot-print concept, there will be no camping on the island.

This will be the first full DXpedition utilizing the RIB concept that features a large number of remote operators with a small footprint on a remote island. Four RIBs (Radio In a Box) will provide a total of 5 stations capable

of 24/7 operation on 10 bands.

The RIBs feature complete stations capable of up to 1 kW in a weather-tight housing that allow remote operation. These RIBs were developed with support from Northern California DX Foundation. The goal is to enable a new, minimum impact operating mode for environmentally sensitive areas. RIBs also speed up the installation of stations.

This will enable our small three-person team to build the five stations, including antennas, in a relatively short time.

Merchandise From RASA

Sorry no T-Shirts, however RASA does have a small merchandise range from QRM Guru. Profits from sales are directed towards funding RASA projects, such as QRM Guru, VKRegs and New Amateur Welcome Packs, all of which are provided free of charge to Amateurs and clubs, members and non members.

Our merchandise comes from QRM GURU - the free QRM busting website that is provided by RASA free for use by ALL Amateurs.

Ultrasonic Receiver Kit

In the March 2023 edition of QTC we ran an article on construction of an Ultrasonic Receiver, a tool for finding QRM sources by listening for the sometimes inaudible sounds emitted. Do you recall it? With the glass saucepan lid? You can review the March edition of QTC at any time to refresh your memory.



Are you interested in constructing an ultrasonic receiver project? We have blank PCBs and short form kits available.

Blank PCB only	\$10
Short form kit	\$125
Postage	\$10

Please note: We only post to Australia.

The short form kit includes the PCB, the ultrasonic transducer, all pcb components, pots, knobs, switch & Hammond plastic case. You will need to find a saucepan lid for the reflector.

Email us with your postal address and order: info@vkradioamateurs.org

We will respond with the final amount owing and Bank Account details.

HF/VHF Station QRM Kill Kit

The HF/VHF Station QRM Kill Kit is a popular product. Because we purchase the components in bulk lots, we can pass the savings on to you.

The kit includes:

- 1 x 61mm ferrite core
- 2 x 50mm ferrite core
- 5 x large ferrite snap-ons
- Application notes on the effective use of ferrite filters



You can purchase the QRM Kill Kit online [HERE](#)

Proceeds from these kit sales will continue to fund RASA projects.