



GATEWAY

The Official Magazine of the Gippsland
Gate Radio & Electronics Club Inc.

July 2022



Squid Pole Antenna Testing Day

Amateur Radio Photo Memories

Audio / HiFi Fun

And More

Cover photo, Squid pole antenna tune-up day, see page 7...

(If you have any good photos, please send them in)

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Note: - club meeting minutes are now via a link in club emails sent out by the secretary.

Event Queue

July:

- 15th 8:00 General Meeting
- 16th WIA Trans-Tasman Low-Band Contest

August:

- 5th 7:30 Prac Night
- 13 & 14th Remembrance Day Contest – courtesy WIA
- 19th 8:00 General Meeting

Club run events are only possible with the involvement of ALL members.

Without volunteers to coordinate and participate in club events the club will fail to prosper

GGREC President's Message July 2022

Hi GGREC Members,

Thank you to all the members that came along to the Mid-Year Lunch to enjoy a great meal and a leisurely chat with friends. Having the Mid-Year lunch at La Porchetta in Pakenham is proving to be very popular as it is easy to get to, has great food and we virtually have the large venue all to ourselves, which comes in handy when conversations are at full volume.

Lots of Club members and guests came along to the June General meeting to see and hear the Flex Radio presentation. Thanks to the great effort by Dave Rolfe VK3JL, we were able to beam in the Flex Radio presentation from Canada in real time. I wonder how many Flex Radios will appear under Christmas trees this year.

Visit to the Australian Synchrotron

We have managed to secure a tour of the Australian Synchrotron on Thursday the 24th of November at 12:00 pm. Tours are only provided on Monday to Friday which will not suite the members that work during the week. This might mean that there will be some vacancies to fill. Thank you to the 15 members that showed an expression of interest to attend the tour and I will be asking for tour booking fee payments in the months to come to secure your spot.

Guest Speakers

This year GGREC has been able to enjoy talks from a number of guest speakers on a variety of subjects. Over the next two months, Albert Hubbard VK3BQO and Rob Streater VK3BRS will be presenting a talk on FM Repeaters.

"FM Repeaters - A technical presentation"

This will be a presentation on the technicalities behind FM repeaters in general and in particular the GGREC owned and operated repeaters. It will include demonstrations to back up some of the theory and will likely be presented in 2 parts at consecutive General Meetings. If you want to know what is inside a repeater and how it all goes together, then this is for you. With some luck, this will be both informative and interesting.

Albert VK3BQO

Kind regards,

Bruno Tonizzo VK3BFT

President

GGREC Inc. A0016893M

From The Editor



This month I am kind of lamenting my lack of memory for this project, A few years ago I bought two serial terminal boards from the Silicon Chip magazine, about the same time I also ordered from Banggood, a pair of ESP001 WiFi modules.

The project at the time was a WiFi modem for my old Tandy TRS-80 computer, the article being in this mag quite a ways back.

That was one ESP module, the second was left with one of the terminal boards for a second project, an almost self-contained

WiFi serial (telnet) terminal. I was not entirely happy with the terminal boards, for they didn't do what I called, a proper 80 by 24 screen, so I thought of editing the firmware, and that's where this one layed - until 'the other day' when I had the urge to make something.

I temporarily mounted the terminal board using hot-melt glue, and double-sided foam tape for the ESP module. I then jumped onto my PC to dig up the software I originally loaded into the first ESP module – and that's kind of where the wheels fell off.

I remembered a 'WiFi64' modem, and went for that in my Arduino files – nothing, oh I must have done it on my laptop, same result – zip. I burned several hours going through computer after computer – all I could find was documentation for the actual terminal board, nothing on the ESP001 module. How on earth can I have programmed the ESP001, and all the code just disappear off into the ether!

I have a lot of memories stored on those hard drives, gigs of photo's, music, and all the articles and magazines I've done for the GGREC, etc. etc. etc. And now here I am with something I definitely built and all of it – bar the magazine article, is nowhere to be found.

Hard drives are not that reliable, and I do have a slightly haphazard backup scheme in place, however I am never happy. However with the sheer amount of data involved, my options are severely limited. Portable USB hard drives being about my only option.

Years ago I used a tape cartridge system, at the time it held 60MB, huge at the time, I could put everything onto one tape. For my holiday trips with my camera, I had a 100MB zip drive. However as you can see, these days they are all but a joke. Yes there are modern versions of tape drives, that are actively used by the thousands by the big players in the industry, However they cost an absolute fortune.

Have a look at <https://youtu.be/QADCcbJGTF8> This is a video I took of a Tandberg tape system I got my hands on years ago, unfortunately it is just a part of the system, I didn't have the rest, or any tapes at the time, so all I could do was video it doing its startup sequence. There was no way I could justify implementing it, so it was junked (as my employer had initially intended)

My most popular video, with 2,036 views.



Paul VK3TGX

Squid Pole Antenna Testing Day

It was a sunny morning for testing our antennas but it was still cold outside.

We had a good number of Club members bringing their antennas to be tested by Bruce with his RigExpert and Klause's laptop, and also Helmut VK3DHI with his Nano VNA. Bruce VK3BRW provided expert technical assistance and tuned the beehive capacitors for best results.

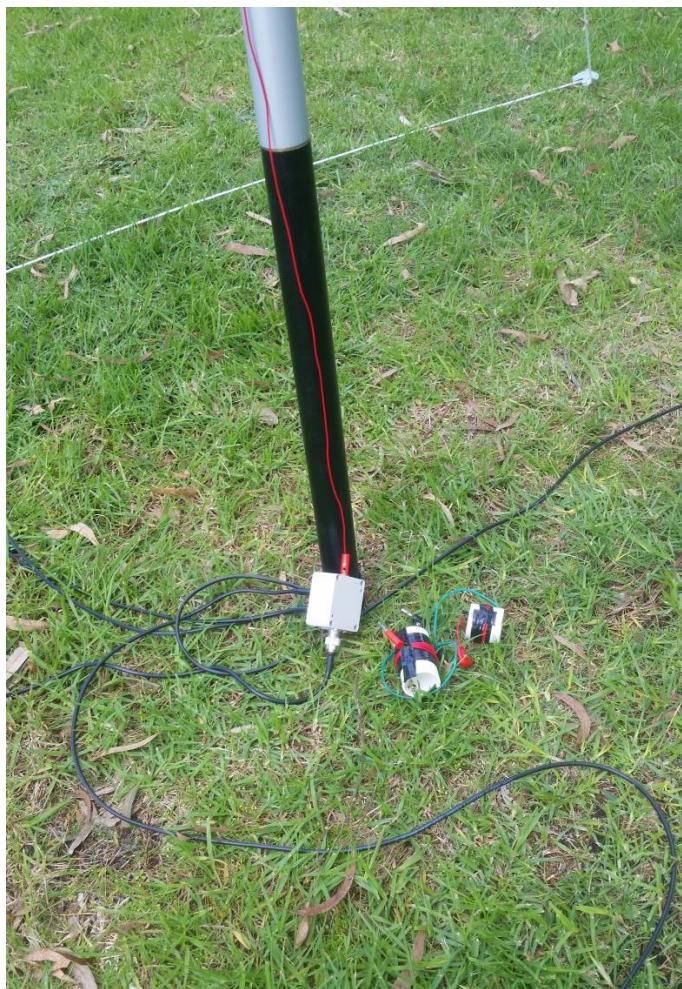
The results were recorded and discussed in detail at the Prac night with the antennas needing a bit of an increase in length to get them working well in 80 meters.

Lots of advice was shared around between members on the different ways to make antenna supports.

I would like to thank Klaus, Helmut and Bruce for their work on the day and to Don Malek, Ken Thomas, Yarn Oncken, Louwe Ligt, Mike Pearton and Barry Hamilton for coming along to make the day a success.

Bruno Tonizzo





↑↑ Bruno VK3BFT

VK3IU Klaus Illhardt



Audio / HiFi Fun

Over the years I've had a somewhat relaxed activity in audio gear area. When I got my first job, one of the first things I bought – or rather built, was a HiFi system, down to Dick Smith electronics and I soon had myself a Playmaster 25W amplifier kit.



This was soon followed by a Sanyo turntable, a Teac cassette deck, a Playmaster graphic equaliser kit, a Sansui T77 Tuner, a Marantz CD54 CD player, and finally a Tandy open reel tape recorder. However in the end the most used part was the not quite first generation Marantz CD player, I could not wait to rid myself of record crackle. It didn't seem to matter how hard I tried, there was another crackle. I did my best then immediately dubbed them onto tape. If nothing else, the crackles now occurred in the same spot each time I played it – a bit weird, but I found that better than the random ones from directly playing a record.

Fast forward to today. And 99% of anything I listen to comes from a digital source – i.e. computer. I now can enjoy my extremely limited vinyl way more as modern software has well and truly killed all the annoying crackles. I now find the way older recordings were mixed/mastered quite often better than modern jobs, where loudness etc. seems to rule. As most people tend to listen via a phone & possibly a crappy bluetooth speaker, the target aimed at by sound engineers has well and truly shifted.

I occasionally see a very nice stereo amplifier/receiver, but then disgruntlingly realise that I cannot readily enjoy it as all my audio is on a hard drive, and there is no easy way to connect it up. If I am going to use it, it will be just another amplifier hanging off a computer and about the only knob of any use is the volume control – which sure seems a waste. The only input of value is the Aux input, records, cassette & open reel tape, AM FM radio – all the things that once over filled my HiFi rack have now kind of been retired. The amplifier was kind of the centre of it all, making the final push in the music and bringing it all together. It was the first thing turned on and what got the most knob twiddling.

These days I tend to spend most of my HiFi/audio fiddling time trying to find new and possibly better ways of connecting my various boxes together, this includes my amateur radio gear, as being able to listen to nets etc. as I move about potentially quite handy. When we had the covid lockdowns and physical meeting of the club were curtailed and we went mostly online, quite a few members went quiet, so thoughts of broadcasting the online club meetings was investigated. It never quite happened (lack of member interest mainly) however I now have all

the links from a mixer desk in my study to a Philips CU902 remote console in place. So broadcasting the latest Adele album is only a few button presses away – not that I will be doing so as it's not exactly legal, nor is feeding UHF CB over the club's repeater, however that radio is



on another mixer desk slider. – We use UHF CB around here as an intercom, so being able to patch that 'intercom' into our whole house speaker system has come in handy. No CB Tx yet, the usefulness of that eludes me at present, although a telephone patch box could be handy. Occasionally I get a call asking about a certain song for church, and stretching a handset cord or mobile over to a speaker is kind of a crappy way to do things.

Whilst most of the above is on physical lines, varying from shielded audio cable, to twisted pairs in Cat5 network cable, having a good way of universally feeding audio over my houses computer network is far from polished. Like most houses these days I have WiFi throughout, whilst purposely not pouring out of every crevice using some form of mesh network, it mostly suits our needs. I have toyed with putting an access point at the top of my Nally radio tower, however that's one for another day. As WiFi basically goes everywhere it only seems natural to use it. However, network protocol, especially WiFi is quite complex and basically forces you to use a computer of some sorts.

In my HiFi cabinet, I have a Volumio music player, this runs on a Raspberry Pi single board computer. I can access it with a web browser (mobile phone etc.) and command it to play anything on my various network drives – where most of my music lives, or I can play the audio of a church service that I had popped onto DropBox at the end of mass – so I can have a second go at 'disolving' his homily – now what was that chapter we were supposed to read?

The Volumio box will also accept audio streams from my PC, both Apple airplay and DLNA, pity Google chromecast is not supported – Google are quite restrictive on that one. I do have two boxes that can accept Chromecast video, however their only output is HDMI, no analogue, or optical audio out – meaning I need a TV running to be able to use it – a slight pain.

'The other day' I stumbled across 'Voicemeeter', VB Audio make a range of computer audio programs. I have been playing with their 'Voicemeeter Bananna' mixing desk.



It looked quite promising, it can send and receive audio over a network, however it does not – well not that I can find yet, Apple airplay, or DLNA/uPnP audio, but rather uses their own 'vban' protocol. A vban box can be made out of most computers & mobile devices. Voicemeeter is 'donationware', if you find it useful, they expect, but not force a fee from you. (except for the professional 'potato' version mixer, with a 30 day trial only)



<https://vb-audio.com/index.htm>

There are two remote options, the receptor that as its name implies receives, and this, the Talkie, that does both – I think.

Now hang on a bit – it has a PTT button, can this be hooked up as a remote radio console?, and Yes, there is a mobile phone variant, however you have to directly pay the app store for these – no trial available. So for now I have the 'free' PC version to play with.

(There is an actual free mobile 'lite' receptor, Apple & Google)

Also, yes, there are Linux ports out there, as in source code, so raspberry pi options exist.

This is getting really interesting....

Paul VK3TGX



Amateur Radio Photo Memories

Ian Jackson had an idea for the magazine that could be fun.

GGREC members are invited to submit a copy of the earliest amateur radio photo of themselves that you have, with the year it was taken.

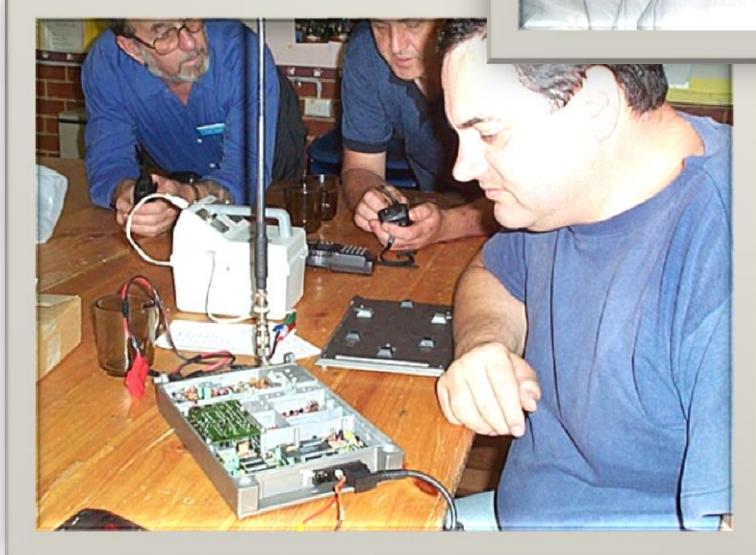
It can be part of a group or maybe while working on antennas etc.

Write a short (or long) story about the photo or just include a caption.

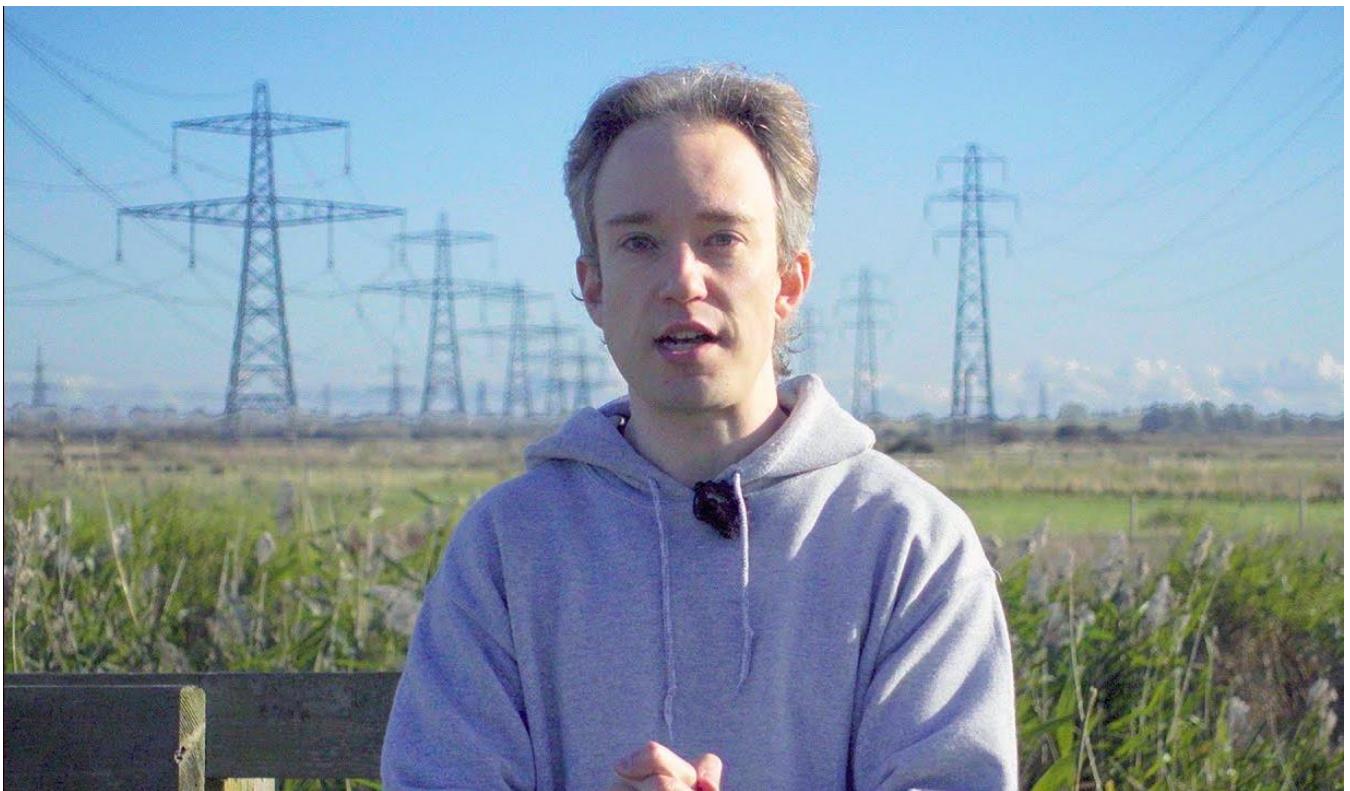
All the photos will be collated and published in our Gateway magazine.

It could be interesting to see what memories are locked away in the cupboard.

Bruno Tonizzo



Interesting YouTube Videos



The hidden background noise that can catch criminals

<https://youtu.be/e0elNU0iOMY>



Why I can't hear your Ham Radio Callsign (sometimes!)

https://youtu.be/UNvIdFsP_tE



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The GGREC is an affiliated club of the WIA

WIA Affiliated Club

We also give Thanks to



For their generous support over the years



Club Information

Meetings 20:00hrs on third Friday of the month at the Cranbourne Guide hall, Grant Street Cranbourne
Prac/Natter nights first Friday in the Peter Pavey Clubrooms Cranbourne 19:30hrs
Visitors are always welcome.

Office bearers

President	Bruno Tonizzo	VK3BFT	General 3	Bruce Williams	VK3BRW
Admin Sec	Mike Pearton	VK3TDK	Web Master	Mark Clohesy	VK3PKT
Treasurer	Klaus Illhardt	VK3IU	Magazine Editor	Paul Stubbs	VK3TGX
General 1	Yarn Onken	VK3NOV	Property Officer	'committee'	
General 2	Helmut Inhoven	VK3DHI	Assoc. Secretary	Miguel Vaca	VK3CPU

Call in Frequencies, Beacons and Repeaters

The Club Station VK3BJA operates from the Cranbourne Clubrooms.

6m Repeater Cranbourne VK3RDD, In 52.575 Out 53.575 CTCSS none

70cm Repeater Cranbourne VK3RGW, In 431.425MHz Out 438.425MHz CTCSS 91.5Hz

VK3RGW Repeater supports Remote Internet access (IRLP), Node 6794 offline.

70cm Repeater Seaview VK3RWD, In 431.575MHz Out 438.575MHz CTCSS 91.5Hz 'Testing'

Simplex VHF - 145.450MHz FM, Simplex UHF - TBA

VK3RLP Beacons 1296.532MHz & 2403.532MHz (currently offline)

Membership Fee Schedule

Pensioner member rate \$40.00, Extra family member \$20.00

Standard member rate \$50.00, Junior member rate \$25.00

Fees can be paid by EFT to BSB 633000 - Account 146016746

- Always identify your EFT payments

- Membership fees are due by each April Annual General Meeting (AGM)

Magazine Articles to editor@ggrec.org.au Cut off, 10th of the month

All other Club correspondence to: secretary@ggrec.org.au

or via post : GGREC, 408 Old Sale Rd, Drouin West 3818

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