GGREC 2024 AGM

My SW Radio Life

HamClock

And More

WIA Affiliated Club

Cover photo,. Meet the new GGREC elected 'members', thanks to Bruno VK3BFT for this one
(If you have any good photos, please send them in)

Contents.

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Event Queue

May:

3rd	7:30	Prac night
17th.	8:00	General Meeting
18 - 19th.		Don Edwards memorial slow Morse contest – courtesy WIA
25th.		Portable day excursion to the Koo Wee Rup – see page 3

June:

7th	7:30	Prac night
8th		VK Shires Contest from GGREC club rooms – see page 3
21st	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

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President's Report May 2024

Dear Members,

Welcome back to another exciting year at GGREC, now under the guidance of our new Committee. A big thank you to all those who generously volunteered their time to be a part of shaping the future of our club. Your dedication is truly appreciated.

As we embark on this new journey together, I urge each and every one of you to lend your support to the committee's endeavours and enthusiastically participate in the activities we have planned.

Our Committee wasted no time in getting the ball rolling, having already convened for a start-up meeting. I'm thrilled to share that we have some thrilling new activities in the pipeline, designed especially for your enjoyment.

Currently, we have two events lined up:

A portable day excursion to the Koo Wee Rup lookout tower on May 25th. Further details will follow soon.

Participation in the VK Shires Contest from our club rooms on June 8th. More details on this will also be provided shortly.

Please keep an eye out for communications from the committee as we finalize arrangements for these events. Your active participation is key to their success!

A friendly reminder that our regular General Meeting is scheduled for this upcoming Friday. Your presence and input are highly valued.

Don't forget to tune in to "The Laundry Net" hosted by Mike VK3TDK every Thursday night at 20:00h on 7.128MHz. It's a fantastic opportunity for camaraderie and enjoyment.

As Mike's saying goes, "Get Involved, Stay Involved, and Enjoy This Great Hobby."

At our recent Prac Night, we delved into the world of Raspberry Pi and embarked on some exciting projects. From Raspberry Pi Nas to Raspberry Pi Weather Stations, there's something for everyone. Additionally, I've been exploring simple projects with Arduino and would be delighted to share my experiences with anyone interested in joining me on this learning curve.

If you're keen on experimenting with cheap, simple projects or diving into Arduino, feel free to reach out to me. I'm more than happy to help facilitate your journey into the fascinating realm of electronics.

Looking forward to seeing you all at our upcoming events and meetings!

Warm regards,

Fred VK3FWR

President GGREC

From The Editor

Gippsland Gate Radio & Electronics Club Inc.

30 Year Membership Certificate

Paul Stubbs VK3TGX

In recognition and appreciation of 30 years continuous membership
of the Gippsland Gate Radio and Electronics Club.
30 Years completed in 2024

Presented by

Ian Jackson - President

Ian Jackson
President GGREC

Klaus Illhardt
Treasurer GGREC

This month I got a bit of a surprise, I wasn't feeling %100 when the AGM came up last month, so I passed on my apologies and stayed home, not that I have much more to offer beyond doing the magazine.

I once did a stint as an extra member, back in Peter Pavey's time, however all they ever wanted was guest speakers, or where to go for the next trip away, two subjects that I kind of failed at.

Anyway, when I finally got there for the next meeting, a prac night, I wasn't expecting a certificate to be waiting for me. Wow 30 years, has it been that long. I still have my 20th certificate sitting atop a photo frame in my study, that one is plain paper, but laminated, the new one is on flash all but card stock, not laminated, so I better source a nice frame, thanks to all.

As for radio, probably the biggest news is the solar activity and what it's done to signal propagation, or rather lack of it. 'The other day' I was running a few receivers through their paces playing with my RTTY exciter, or modulator. It's just using the output from a crystal oscillator into an 8 inch antenna, then picking it up with a nearby antenna, so absolute flea power. Now normally I have to pick my time of day lest it get swamped out by all the regular HF signals. However dusk approached and nothing, not a sausage, just white noise with my little toy warbling in the background. This continued into the night onto midnight where I gave up and went to bed. Now around this QTH I get a whole lot of noise, and this background was still there, but it was just pure white noise, if I pulled the antenna, it was just like turning down the volume – as in only receiver noise, if I plug in again the S meter rises but the audio is just louder 'receiver noise'. One thing I did notice was a 'long wire' antenna I have, that is strung below my off centre dipole picks up way less of my test signal than the antenna above. The biggest difference is that 'long wire' is not resonant anywhere I know of, rather than the off centre dipole, so maybe I should try one of those balun kits the club was building ages ago, obviously just feeding it straight into a bit of coax to get the signal into the shack it not the right way.

Anyway, to keep the purists happy I should stop calling it a 'long wire' because the term should refer to a wire antenna that is longer that a wavelength, so that kind of implies longer than 160M, not quite what will fit inside my suburban block, on the other hand if I talk as a CB operator then I only have to contend with 11 meters. Now I do have a CB, somewhere, but I've never really been active there, I never found anyone 'on my wavelength' mind wise.

Oh well, back to reading the manuals for 'HamClock', and probably a bit of googling as I try and make sense of all the HF terminology. However on the other hand, maybe I shouldn't and just use what they provide, as in what a new 'fresh' user would see. But that's probably not where most club members are coming from, darn. I'll probably miss something in the rush to get this magazine done, then wonder later on (maybe months etc.) how I could have possibly thought that and not known 'XYZ'. But then again I often think the same when someone sends me something in an email and to my mind it's so 'up the creek' it's not funny, "What are you doing, we've had home computers for twenty years, how could you not know". Oh well, just part of being human I suppose

Paul VK3TGX

GGREC 2024 AGM

It was refreshing to see so many members turn up for the GGREC GM/AGM.   What was also a welcome sight was that members were willing to stand for all the committee positions.   For the first time in many years we have a full committee, and 3 additional members to help out.
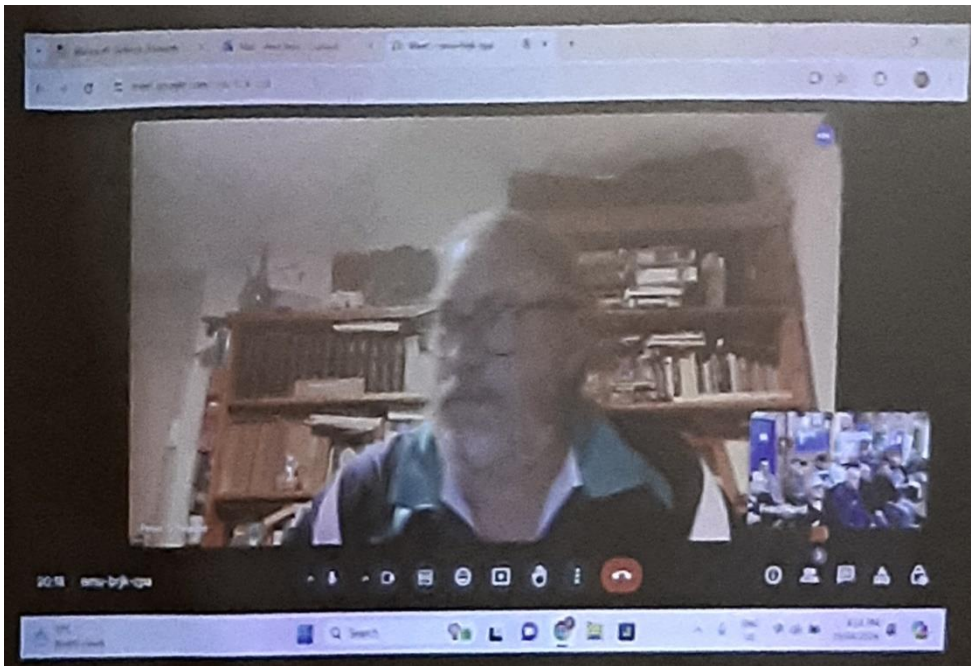
We had an online connection with **Peter Schrader VK4EA,** from the WIA Board who was our guest speaker for the night.   We heard about the current issues and news from the WIA and about Amateur Radio.   Peter was also happy to answer any questions from GGREC members.

Before the 2023 committee was dissolved, the outgoing President – Ian Jackson VK3BUF presented "Years of Membership" certificates to eligible members and also certificates of appreciation to members that have gone above and beyond to organise events and presentations for the Club.

We all welcome the new Committee and look forward to an exciting new Club year.   So come along and support your Club by getting involved in meetings and events.   Remember, they are organised and held for your benefit!!

Bruno VK3BFT

My SW Radio Life – VK3TGX

Now for something a bit different, I mentioned to club members about my past radios and it was suggested that that would make a good article for the magazine. Well here it is.

My interest started with visits to my grandparents, they had this Sanyo portable radio that received short wave, so I'd go hide in a corner seeing what I could receive, there were all sorts

of strange signals that I listened to trying to figure out just what they were. Now I know, most of them originated from Russia, as in jamming signals and other strange military 'marker signals', so now I was now kind of hooked.

This radio later on became intermittent, a 'pat on the back' usually bringing it back. That was until one day when it didn't, so a firmer one was used, resulting in some strange noises from inside, on tipping the set from side to side, it sounded like there was gravel inside. On opening it a pile of transistors fell out, it turned out they were all in sockets and now were not….. With no diagram, nor internet back then, figuring out which went where was a big problem. As the set now stands, all but 'transistorless', not sure whether to fix or bin.

Eventually I was able to buy my own, a kit short wave radio from Tandy, Tandy being the only electronics shop (apart from the odd TV repair shop) that I had access to. Tandy had this range of kits called P-box kits, they came in the red and clear boxes, when on the hook in the store, the glossy paperwork was positioned in the clear part of the box, with the red part at the back, however when you opened them this box became the chassis for the kit. I always thought this was a way better idea than your standard cardboard boxes that end up in the bin, the only bit you threw away was a small plastic tab, a part of the red back, that was used to hang the kits on the pegs in the shop. I ended up with several of these kits, unfortunately none of them survived. This shortwave radio

was about as basic as you could get, it was a super regenerative design which meant if you

pushed the regen control too par it would start osculating, basically turning itself into a transmitter. To receive SSB you basically had to 'just' nudge it into oscillation as there is nothing else to replace the missing carrier signal needed to demodulate SSB. Now this kit was not exactly a power house, my listening being restricted to fairly strong signals like 'Voice of America' or their Russian equivalents. Actually I preferred the Russians as there was far less 'rar rar we are the best'. To change bands you changed the coil, that was suspended above the chassis on spring clips. The biggest problem was hand capacitance, you'd carefully tune in a station, but when you let go of the knob and moved your hand away it would go out of tune, so my only solution was to keep my hand on the dial, moving your hand for fine tuning. Thinking back I should have made a metal front panel, however I was way too young and 'noobish' for such advanced actions. Sorry about the poor pic, courtesy of the web, mine is looooong gone.

Next came another kit, another one from Tandy, a 'Science Fair' 'Globe Patrol'. For some reason the term "Science Fair" is big (or was) over in the US, I've never seen or heard of one over here. They appear to be run by schools, maybe it's like them also running competitive sports teams with "College Football" used over there – never here?

Anyway this radio was a bit of a disappointment being not much better than the P-Box kit. All it added was a band change switch rather than swapping coils, and a speaker rather than being earphone only. It's still a super-regen set, that being the function of the top 'tuning' knob. I picked up precious little new stations and soon consigned it to the junk pile.

All that remains of mine is the circuit board, the complete set pic above coming

from the internet. If you look you'll see some burning at the lower left hand part of the board, the result of young me applying some excessive voltages, to 'fix this pile of c….', such was my disappointment. Pity I didn't keep the box.

This was a part of Tandy/Radio Shack that I really liked, while these radios were far from the top end, they were affordable by young ones, and they had plenty of shops out there so your chances of getting to one were good. Later on 'Dick Smith Electronics' came, however it was many years before they opened a shop in Victoria. I did make a fair bit of use of their mail order department; however the Yaesu FRG-7 they had was WAY above my means. $$$$

Next came the **Realistic DX-100**, another Tandy offering.

Now this was getting a bit more serious, bye bye super-regen, I now had a proper mode selection switch. The main problem was frequency stability, as I had started getting into radio teletype – RTTY. So then I was forever chasing signals up and down the band.

Above is my equipment lineup for RTTY, (back then) reception only, as I didn't as yet have a license. I'm not sure whether constantly chasing station up and down the band or contending with the RFI from that old Tandy computer was the worst part. Later on I bought an NEC APC3 computer, this had high-res graphics, so I also started chasing radio fax signals. Slow scan coming way later after I acquired an IBM PC compatible computer.

Unfortunately the RTTY scene is rather quiet these days. I used to tune into various news feeds that seemed to run forever, however these days about your only source is amateur stations, however their transmissions are usually short and sweet QSO's, the commercial guys having long gone to the internet.

There is that American group that still runs RTTY, however it's as an audio stream on the internet, I don't think they have an actual on-air signal that you can actually tune into. Most of their content is commercial style news, so probably against the rules to transmit it on our bands. The WIA does list the ANARTS group, however all the links on the WIA site are broken and Googling ANARTS led me nowhere, so no point publishing any of it here.

Maybe someone should grab (with permission) the text of WIA broadcast and Tx it as RTTY!

Next came a **Yaesu FRG7700**

It's amazing the difference having a paying job makes, I was too late for the FRG-7 so I ended up with its successor. (Or so I thought at the time, however there was an FRG7000) These use the 'Wadley loop' or 'Wadley-drift-cancelling-loop' to make this radio way more stable. There is a touch of drift after first turn on, but it's pretty good from then on, no way as good as a modern digital synthesized set, if you look at the 'Mark' field of a live session, rather than a picture of MMTTY as shown below, you can see the software chasing about in the Rx audio to keep a lock on the signal. It wanders about a few hundred hertz, but is usable in MMTTY

In the last mag I made a RTTY transmitter, that I thought at the time was a bit of a flop, however most of that was from my DX-160 that looks like it needs a serious re-cap, especially in the power supply. as that's where 99% of the trouble was coming from.

On the FRG-7700 I was able to get quite good copy, the receive antenna is a few meters away, so the signal was really in the noise, so the best time of day to receive it was in the middle of the day when all the regular short wave traffic is severely down in strength. I left it going into the night where the copy soon degraded to all but unreadable, however the good old FRG-7700 kind of remained on frequency.
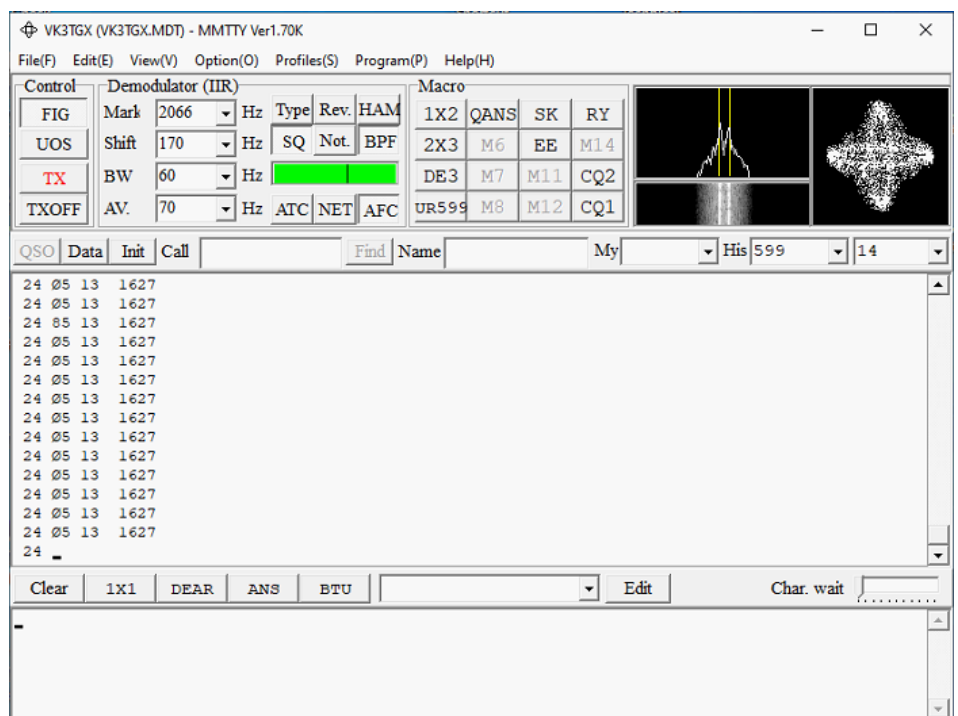
Next a **WinRadio WR-1000**

Twenty odd years ago the GGREC hosted a talk by the creators of the WinRadio at one of our meetings – Pity we have no photo's. At the time I felt a bit compelled to buy one, they had graced us with their demo, so why not. Unfortunately it cost a pretty penny.

Later on at Telstra where I worked, this rack mount industrial PC came through, it was actually intended to control some Telstra radio systems, so it seemed a natural to become the home for a WinRadio board.

Whilst it does not appear to beat the Yaesu, most of the problems with these come from the fact it's installed inside a computer, so de-sensing and birdies are frequent issues.

However I recently got a surprise, I had installed some IP audio software, and listened to some broadcast radio from it over my network back in my house, I was pleasantly surprised by the audio quality. I had always used it with a communications grade speaker – as in crappy, not anymore. I hope to one day get this box on line, however with competition from KiwiSDR etc., it's not looking good.
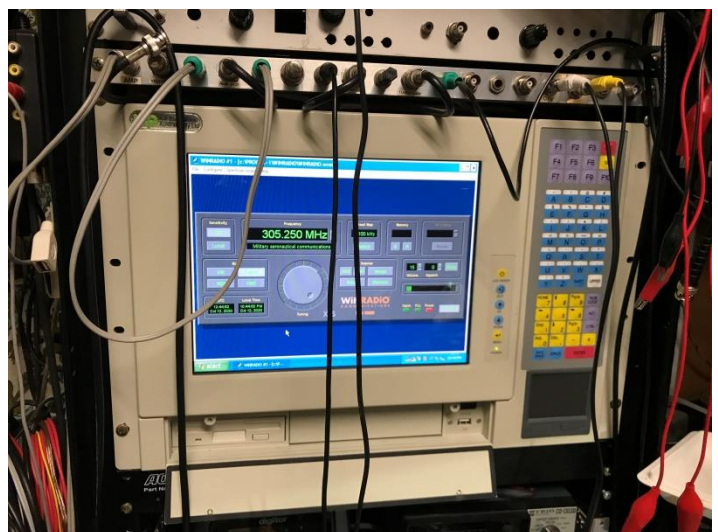
This one was bought completely out of sequence, as in after the FRG-7700 for an extremely weird reason. On YouTube there was a video on re-creating a movie prop from the movie "Apollo 13". I had also seen this in the movie and recognised the speaker as one that normally comes with the DX-160, the only difference being the NASA badge.

Anyway at a hamfest there were a few DX-160's for sale, and having a desire for a SW radio for my study, rather than the radio shack, I bought this one.

Here is a picture of a modded DX-160 speaker as per the movie, alongside a Bell telephone speaker, that is what was really used. There is a photo 'out there' showing the back of a Bell in a shot within a real house, no movie set. One of the biggest giveaways is that you cannot just connect a speaker to the end of a phone line, you need an amp, these Tandy speakers don't have one, whereas the Bell one does, intended to be run by phone line power.

Anyway, back to the radio, it's nowhere as sensitive as the Yaesu, and it does drift quite a bit (SSB wise). I just tuned it into my RTTY modulator, and as I type this it's wandered completely off, just white noise in the speaker. Also, the dial is very vague, then add the band spread dial and it's vague plus or minus a mile. I should add a digital display, there is plenty of room.

Well this is my story – over to you to tell us your radio story, how did you get into the hobby?

Paul VK3TGX

New Club Computer

Recently Fred VK3FWR and Klaus VK3IU cooperated and provided different parts to put together a gamming PC to be used as permanent club station computer. These items were donated to the club. The Gaming PC from Fred containing a high powered GPU from Klaus which can handle multiple monitors.

We still looking for additional 16:19 monitors possibly two in addition to the existing monitor to improve the operational experience. If you have an old monitor and are willing to donate it to the club let the Committee know about it, we don't require a high resolution one, but it should be a decent size.

The PC has two log book programs installed which are **Log4OM** and **N1MM**.

Log4OM is a very nice and easy to use day to day logbook program and the PC will start up **Log4OM** automatically. **N1MM** is intended to be used for contest where **Log4OM** might struggle.

But the main Logbook to be used is **Log4OM**.

Log4OM will upload each logged QSO to our QRZ.COM website https://www.qrz.com/db/VK3BJA .

So, stop using the paper log and only log contacts with Log4OM.

Details about **Log4OM** can be found here   https://www.log4om.com/

Any questions to the use of the PC and the log book software can be directed to Klaus VK3IU.

New Committee

During the last AGM in April 19th, 2024 a new Committee was elected by the present members.

President	Fred Reid	VK3FWR	president@GGREC.org.au
Secretary	Klaus Illhardt	VK3IU	secretary@GGREC.org.au
Treasurer	Bruce Williams	VK3BRW	treasurer@GGREC.org.au
Committee member	Leigh Findlay	VK3FACB	committee@GGREC.org.au
Committee member	Ian Jackson	VK3BUF	committee@GGREC.org.au

The new committee held a forming committee meeting last April 29, 2024 to get started and to introduce the new committee members to their new roles, discuss upcoming activities. The next regular meeting will commence on May 13, 2024. All members can request to sit in to a committee meeting, these requests need to be made in writing (email)and in advance to the Secretary in order to be invited.
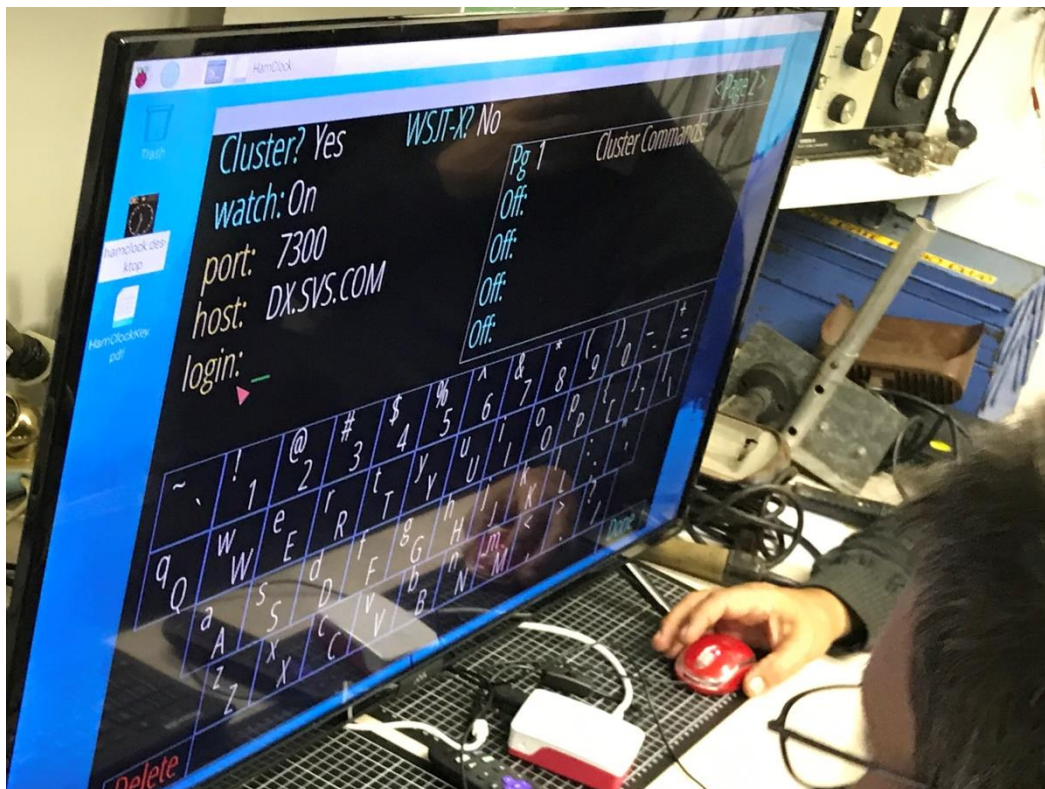
Klaus VK3IU

Secretary GGREC

HamClock
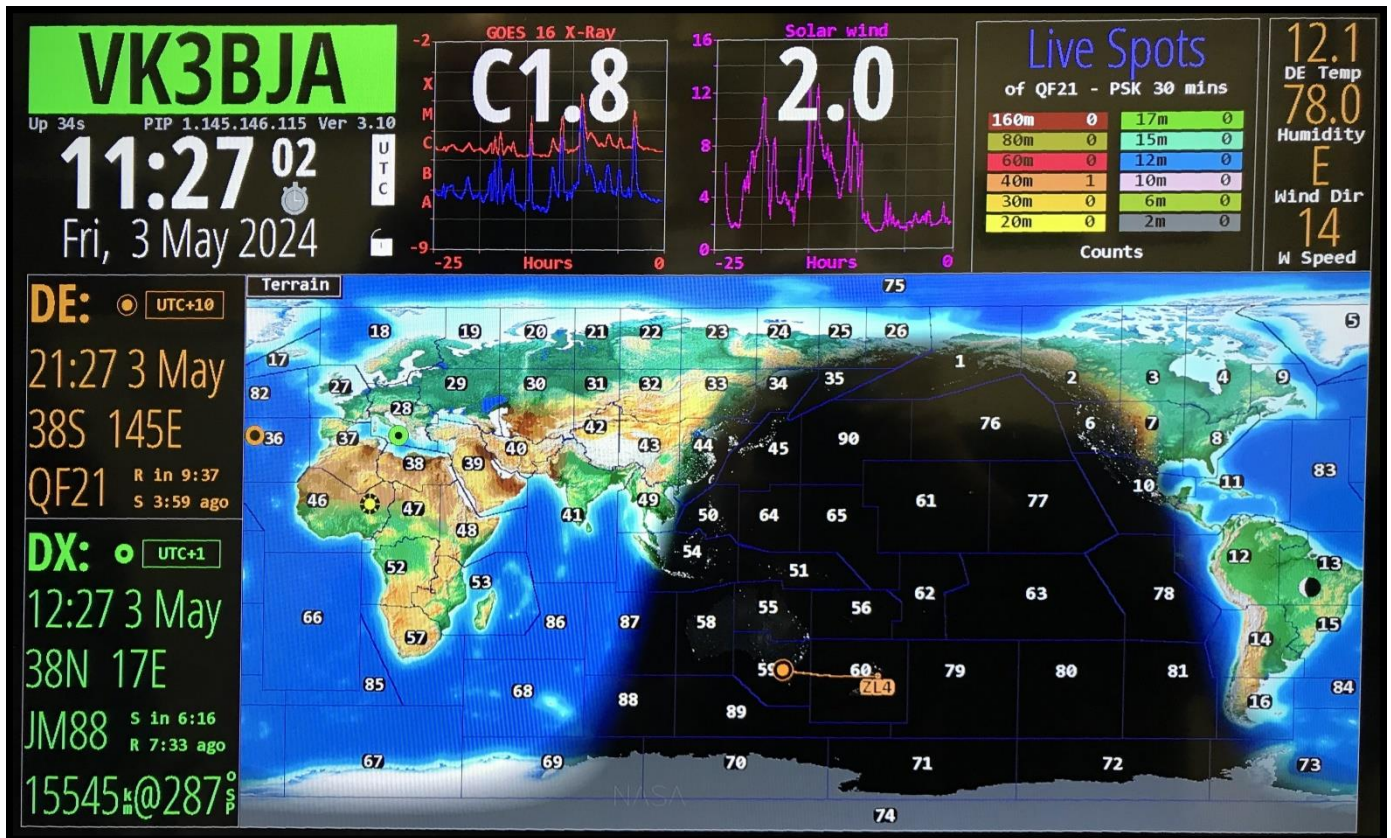
At the GGREC prac night we had a demo of setting up a 'HamClock' on a Raspberry Pi.

This seems to be quite a handy thing for a HF enthusiast

Names were being taken so hopefully a good deal could be had if the club were to buy a dozen or so Pi's however at the prac night interest seemed to stop at about three.

So if this looks useful to you then give Fred VK3FWR a call, we hopefully can get enough numbers to make the suppliers interested in helping the GGREC with a nice discount.

Whilst initially the Raspberry Pi was quite cheap, now a 4gig 'Pi 4 is $94, or $84 for a 2gig model. A 'Pi Zero 2 W is $32.99 (all from Pi Australia) although I don't know if it will work here.

Setup

Assuming a Raspberry Pi, that is a later versions, and not a kit with a pre-programmed SD card, you can get the 'Pi to download and install their OS over the internet, just insert a blank card, plug in an Ethernet lead from your router and power on, the 'Pi should come up with a screen to download and set itself up over the internet.   https://youtu.be/Ll9Tmp3tppU

After that, download yourself a copy of the HamClock manual from the 'ClearSkyInstitute'

https://www.clearskyinstitute.com/ham/HamClock/HamClockKey.pdf

Then go to the 'Desktop' tab on their website, basically open a terminal window on your 'Pi and paste in …..

```
cd
curl -O https://www.clearskyinstitute.com/ham/HamClock/install-hc-rpi
chmod u+x install-hc-rpi
./install-hc-rpi
```

Assuming no errors etc., then you should see a HamClock icon on your 'Pi's desktop
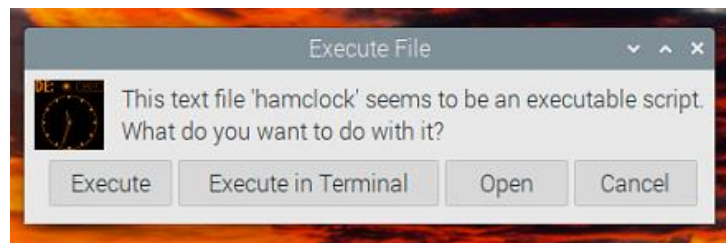
For some reason, clicking on that brings up this execute window, just select 'Execute', hopefully one of our Linux Gurus can tell us how to fix this anomaly
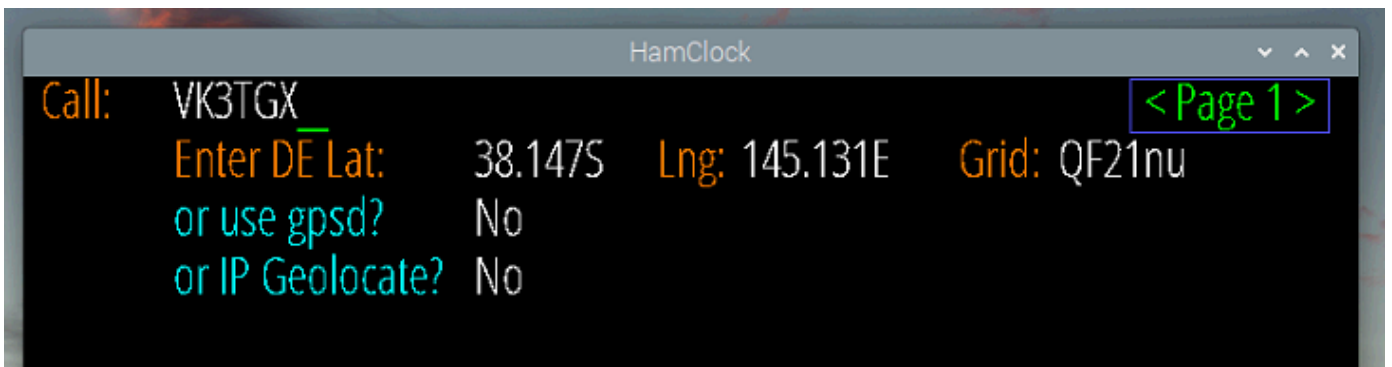

When run it will ask you a few questions, I'll assume you have a callsign, however it also wants your location, if you know your gridsquare then enter that, otherwise you'll need either a GPS, or do as I did and bring up Google Earth on your computer. You can zoom all the way in to your houses rooftop and the exact coordinates will be shown at the bottom of the screen.
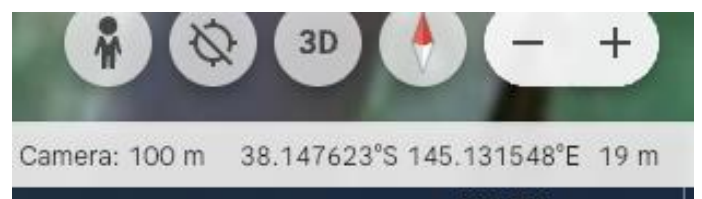
By default it's listed as 'Degrees, Minutes, Seconds, however we want decimal (second pic)

On Google Earth go into 'Tools', 'Settings', scroll down to 'Formats and units' the change 'Latitude/Longitude Formatting' to 'decimal'. Now when you point to your QTH you'll see your location at the bottom right hand side as an 8 or 9 digit number, HamClock does not need that much precision, if you type too many digits the field will fill up and you won't be able to enter the all-important compass points of 'E', & 'S' for Australia, so if there is no room, drop a digit from the end to make the 'S' and 'E' fit.
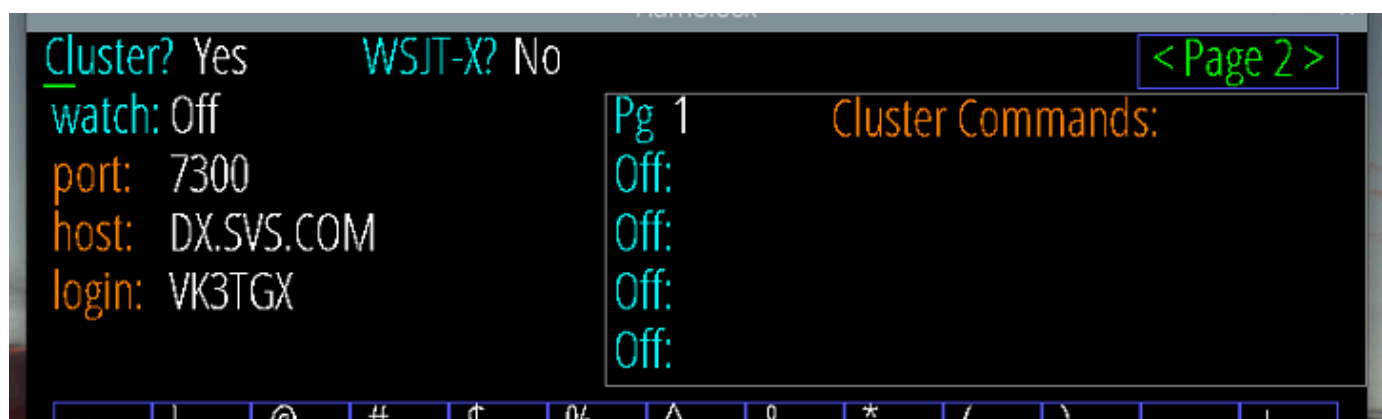
Now, on page two, try these settings courtesy of Fred VK3FWR, of course substituting your callsign in place of mine.

This is most of it, you can step through the rest of the settings, or just click 'Done' near the bottom of the on-screen keyboard, assuming no errors you should have a HamClock running,

The VK3TGX take
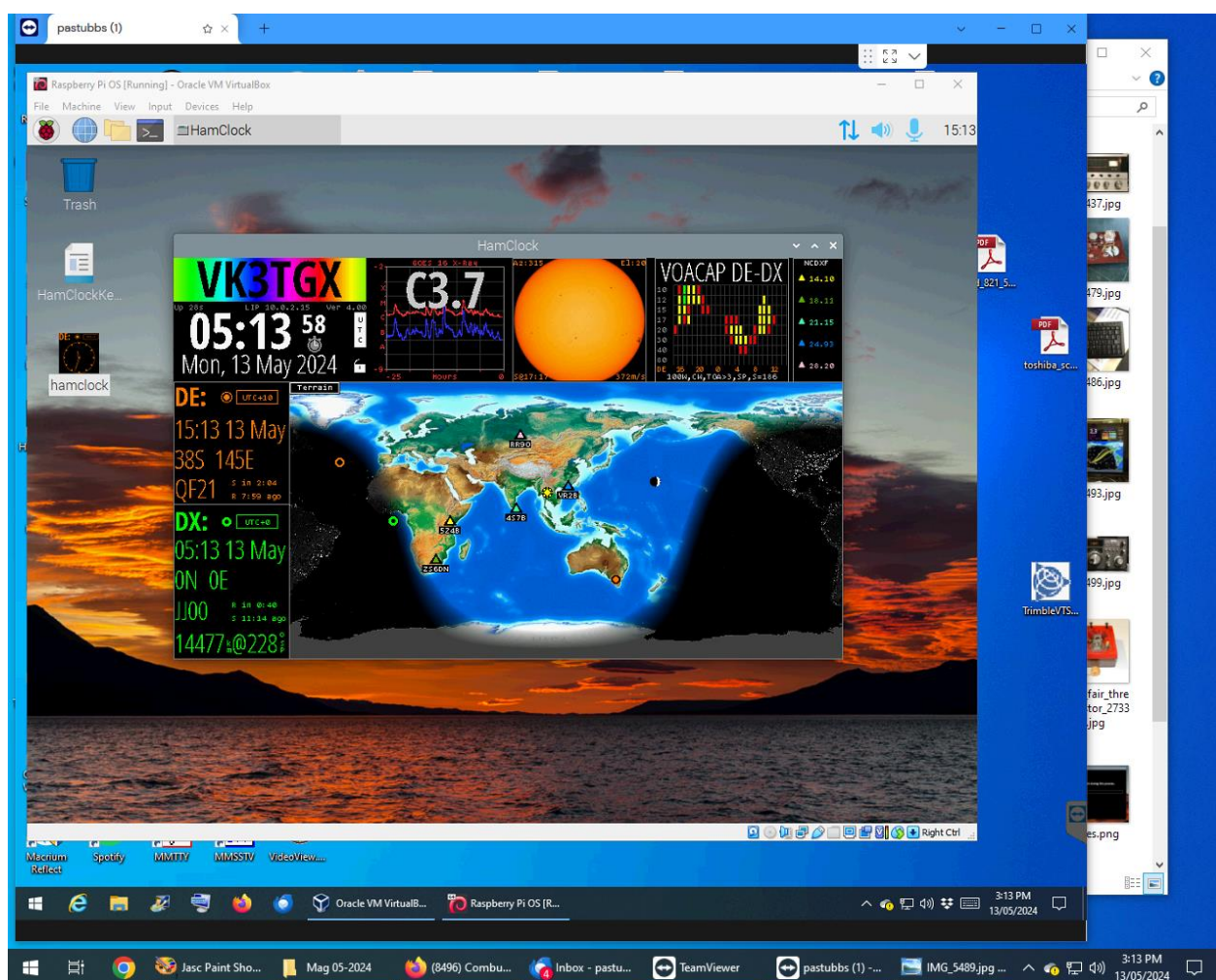
I looked into it and saw the odd problem for me. It was originally an ESP32 project that got expanded over to the Raspberry Pi, It is unfortunately Linux only, with no native Windows version available. However there are a few work arounds if you don't want to set up a Raspberry Pi in your shack. My shack is mostly a Windows place, although that may change as Microsoft are not being overly friendly with the Windows 11 upgrade options.

On Windows there is 'WSL', or 'Windows Subsystem for Linux', if your shack PC is relatively recent, or you could try what I did, and use VirtualBox to run a session of Raspberry Pi Linux under Windows. Make sure to allocate a 20gig virtual drive & a few gig of RAM for a 64 bit Linux install and you should be 'good to go'

That's kind of what's in the picture above, however for added complexity (fun), it's all being remotely controlled via 'TeamViewer', that's why the double layer of Windows desktops. It's actually more comfortable for me to remote in with TeamViewer from my study as it is way better, computer wise than in the radio shack, which is not conducive to extended computer sessions. There is no place in front of my shack computer screen for a keyboard and mouse.

My shack screen is off to one side, fine for the odd log entry, or displaying circuit diagrams as I fix stuff. But extended computer use soon gets uncomfortable. The back of the two 'desks' there is either test equipment, or radios, it's far from a computer workstation.

Anyway, back to my 'HamClock' is this a good setup, well not really, it's just using what's in place. I just wanted to see if I could get it up and running without buying or installing extra gear. Also this makes taking screenshots for this article way easier.

Another option is to run HamClock on a computer not in your shack, then view it in the shack via a web browser on your Windows box, or maybe even a tablet computer. The web view function is built in, so precious little extra steps are needed; refer to the FAQ's for how to do this. Actually you can run HamClock without a local display for this use. So a 'headless' Pi next to your router, far away from your radio gear may suit you. Actually it can be viewed from multiple browsers if you like. This avoids extra digital (noise making) gear in the shack.

Actually my biggest problems with HamClock is that I'm not really a HF man, there is way too much HF QRM at my QTH, like S9+, so I just don't bother with HF, so concepts like 'Clusters', 'WSJT' etc. mentioned in the setup of this software are all foreign to me.
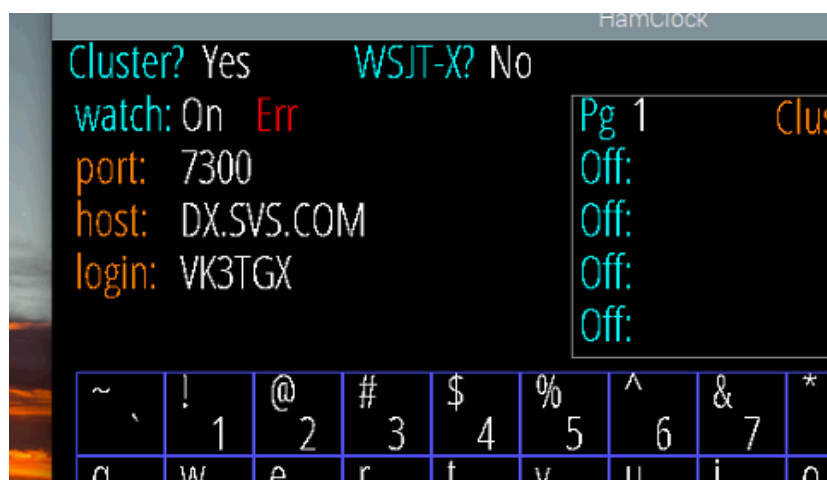
So figuring out what this 'Err' is all about is a problem…..

Oops, try reading the manual, I was just typing in what I captured in the picture of Fred setting up the demo.

Fred is the expert here and I seem to remember him saying he can help if needed, I just didn't take enough notes as he demo'd it, I assumed it would be all in his notes. He had a pile of as handouts etc., unfortunately for me these were just printouts of the material from the HamClock website, not his notes for some default settings that would see me started.

Fear not about all you need is your call sign, your location, either a grid square locator assuming you know that, or do as I did and use Google Earth to give me my lat and longitude.

I thought I'd have to set myself up with this 'DX.SVS.COM' thing, however plonking that address into a web browser gets me nowhere, and Google is not much better, offering the likes of 'Claims management Services Victoria', not exactly Google's finest hour. However the settings Fred had, '7300' , & 'DX.SVS.COM' seem ok, just replace my call with yours.

Maybe the club should encourage one of our HF experts to give us a talk all about clusters, flrig, WSJT-X, and all the other lovely developments out there.

So far the only downside is this HamClock is not standalone, it gets a lot of itself from the servers at "Clear Sky Institute", so if they have a change of heart etc. this will severely limit things, have a look at the FAQ item 36, can it run without an internet connection.

Now to get those live contact lines to work….

Oh, got it, you need that 'Live Spots' panel, Right click that panel (top, second from right) then select 'Live Spots', then click 'Ok'

Have fun

Paul VK3TGX

Prac Night 3/05/2024

Interesting YouTube Videos

Unlocking the Mystery: Why the HF Bands Are DEAD
https://youtu.be/2sgqcqFnzd8

If tradies worked for Auspost
https://youtu.be/CZhLb2FjZ3Y

The GGREC is an affiliated club of the WIA
https://www.wia.org.au/

WIA Affiliated Club

We also give Thanks to

https://www.jaycar.com.au/

https://www.altronics.com.au/

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	Fred Reid	VK3FWR	General 3		
Admin Sec	Klaus Illhardt	VK3IU	Web Master	Mark Clohesy	VK3PKT
Treasurer	Bruce Williams	VK3BRW	Magazine Editor	Paul Stubbs	VK3TGX
General 1	Leigh		Property Officer	'committee'	
General 2	Ian Jackson	VK3BUF	Assoc. Secretary	Bruno Tonizzo	VK3BFT

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
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
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