GATEWAY

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

September 2018

Cooking RF Noise Sources?

A Date at The Prom

The Swedish Morse Key

And More

Contents.

Note: - club meeting minutes are now on the club website

Event Queue

September:

7th	Prac Night – Club rooms
9th	SadarC Hamfest/Comms day (see armag)
21st	General meeting – Guide hall

October:

5th	Prac Night – Club rooms
14th	Yarra Valley Amateur Radio Group HamFest
19th	General meeting – Guide hall
20th	JOTA – see page 4
28th	Ballarat Amateur Radio Group HamFest

November:

18th	The Rosebud RadioFest

PRESIDENTS REPORT SEPTEMBER 2018 – Bruce Williams VK3BRW

Hamfest (August 4th)

Some further comments. August 4th saw the holding of our very popular GGREC Hamfest and this year's event didn't disappoint, with all stalls selling out ahead of time. However, a Hamfest is more than just a selling event. Yes to most of us a Hamfest is also a way of catching up with other hams, from other clubs, some of which you have only spoken to on the air , or haven't seen face to face for some time. And it's not just VIC hams I'm talking about, as I did notice a small number from NSW and SA as well. Having said that, I must admit to picking up a 1400VA Uninterruptable Power Supply (UPS) for under $100, along with its internal batteries and I must say it works like a treat.

Of course events like this don't just happen, they take a lot of forward planning and there are always lots to be done on the day. With this in mind I would especially like to thank Bruno (VK3BFT) for doing such a wonderful job in organizing the event. Dianne (VK3JDI) for handling all the stall bookings and manning the front door on the day. A special thanks also goes to ALARA (Australian Amateur Ladies Radio Association) for helping PAT (VK3OZ) and myself out in the kitchen. I would also like to thank all those members (to many to name), the real unsung heroes, who turned up to help out, some as early as 7:30am, to layout tables and chairs, sweep floors, put up banners and signs, man the BBQ, and run errands, if need be. Oh and let's not forget Paul (VK3TGX) who inevitably turns up to most of our events to take pictures and to write articles for our magazine.

Finally I would also like to thank our sponsors, Altronics in Clayton and Jaycar Cranbourne for their generosity in supplying the door prizes.

There will be more to be said about tweaking this event to make it even better at the September General Meeting.

International Lighthouse Weekend (17th to the 19th August)

As mentioned last month 8 members made up of members from GGREC and EMDRC hiked the 18km from Tidal River (Wilsons Promontory) to the Lighthouse. The group all managed to make it there and back, despite the poor weather conditions. The group went on air around 1600 on the Friday and the proposed sked on 3.660 (plus QRM) did take place at around 18:30 between the club shack and the start of the August GM. Ian (VK3BUF) has agreed to give a presentation at the September GM.

Radio Amateur Society of Australia (RASA)

As previously flagged a presentation will also be given by Chris (VK3QB) at the September general meeting. This will be an open and broad discussion with members given an opportunity to have their say.

It is envisaged that a similar discussion will also take place on the WIA in the near future.

Tower Maintenance

On Friday 14th September the tower supporting our HF Log Periodic beam antenna was lowered to the ground and the antenna Rotator, along with the masts main support bearing was removed for repair or replacement. Refer to the separate article in this magazine for details on how this was achieved.

Note: this means that the tower is currently out of action until further notice.

Club Badges

If new or current members require club badges Please let me know at the September GM as they are currently being ordered. Cost is likely to be around $14. I am also investigating the costs of monogrammed polo shirts and jackets if people are interested.

New Initiatives

- The introduction of a "Wants and Needs Segment" to all GMs. For example you might be after that illusive valve or high voltage capacitor or a brand X transceiver for.
- Show and Tell running to a theme on some or all GMs. For example Hand held mobiles or test gear, or Military Transceivers, just to name a few.

Next Caravan Trip away

Last meeting we agreed in principle to such a trip. This meeting we need to give it some further thought. For example Which weekend to choose and the location to hold it.

Financials

As usual a financial statement should have been uploaded to club website prior to the meeting, however, the treasurer Chris will give a brief description on how we stand financially.

Regards and 73s
Bruce

JOTA / JOTI 2018

On the 20th October we are activating a JOTA station for the Cranbourne Guides and invited Guide and Scout groups. To make this day a success we are inviting members to come along and supervise activities like Fox Hunting, VHF/UHF JOTA contacts or HF Jota contacts. We are only required to assist for a few hours on the day so there will be plenty of time for a sausage sizzle for members that turn up to help on the day. A Working with children's card is not required (to be confirmed by the Guides) but if you have one bring it along.

You can find more details about JOTA / JOTI on the Internet if you want to read more about the event.

More details to come as we get closer to the day.

Kind Regards,
Bruno Tonizzo
VK3BFT

From The Editor

This month I've got back onto the internet, particularly Banggood and ordered a pile of 'goodies' both for new projects and also to finish off a few old ones.

I read an article on the 'net the other day that evaluated which country would lose the most if the whole internet went down, and it turned out to be China by quite a large margin. Apparently Alibaba.com (AliExpress.com) handles quite a lot of the international trade out of China. I can't say I've tried that one, the name kind of put me off, all I could think of was old Hollywood movies about Alibaba and the forty thieves. However my worries were unfounded, they are legit.

One small job was to update my Thumper battery box, this originally came with a 2 pin charge socket (as in 2 pin CB style mic socket, no fuse) and a cigarette lighter socket as the output – not a very useful setup I thought.

I replaced the 2 pin-er with a 2.5/5.5mm barrel socket for smaller loads, then I fitted a 25A Anderson socket – as per most of the club's radios, and finally I replaced the cigarette lighter socket with a twin 2.1A 5V USB socket, as so much of today's kit is powered by USB it's not funny. (plus most of my Arduino's)

The only catch is that 'they' are now pushing USB 'C' upon us, this is a far more complex 'intelligent' system that can vary the voltage to suit the load, and of course it uses a different connector.

Will this ever end – probably not.

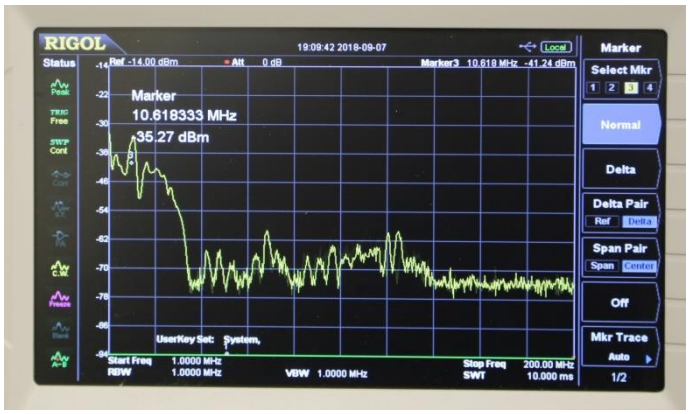
The battery box had a switch to turn on the volt meter, it now also switches the USB sockets power. Whilst mine obviously uses power when not used, as it is illuminated with red LED's, there are a lot of USB power banks out there that have no switch at all. No battery puts out 5.0V, so there is always a regulator/inverter involved. They all use power, slowly flattening your battery, so why no switch? Well that will cost a few cents more….

One has to ask just how many USB power packs are out there – some especially those 'jump starters' are quite expensive, that have no proper low volt detector/shut down circuit, (or switch) and are sitting in a drawer somewhere slowly dying – Ah more e-waste, just what the world needs.

Paul VK3TGX

Ian's RF interference measurement box

At the last prac night Ian VK3BUF brought along his converted microwave oven and spectrum analyser. The oven had been completely stripped and repurposed as a shielded box for testing some of the many RF noise sources that exist these days, like switch-mode power supplies, LED lighting etc. etc.



Currently the only 'active' part in the old oven is an antenna that feeds directly into his spectrum analyser. Ian is also building a 12V 15A power supply into the box, so there will be 12V DC power available alongside the 240V socket that is currently in there.

Ian is busy compiling a list of various noise makers, so hopefully we might be able to avoid buying the more noisy variants and keep our houses/shacks free from too much added crud.

GGREC PRESENTATIONS & EVENTS FOR 2018

Introduction

The following is a guide to the General Meeting Presentations and Events that are likely to take place at General Meetings for the remainder of this year.
Please note: that all Presentations and Events are subject to change without notice. As a general rule, a GGREC Newsletter will be sent out to all members, prior to each Presentation, or Event as a confirmation reminder.

General Meeting Presentations

MONTH	SUBJECT	Comments	Speaker	Confirmed Y/N
August	1. Member Feedback on their Needs & Wants. 2. A brief early technical history on TV Programming and Transmission	1) An open discussion on what the members expect and require of their club. 2) A brief early history of techniques & Equipment used to successfully Program and Transmit Broadcasting signals at Channel 7 Melbourne to its viewing audience.	Bruno T (VK3BFT) Barry H (VK3ABH)	Completed Completed
September	1. RASA 2. ILLW Weekend	1) A presentation by a member of the Radio Amateur Society of Australia (RASA). Discussing there objectives and inviting feedback from the membership. 2) A presentation on the clubs participation at last month's Lighthouse weekend and Wilsons Promontory VIC.	Chris C (VK3QB) Ian J (VK3BUF)	Yes
October	1. WIA Presentation 2. Shenzhen China visit	As per RASA Presentation on Shenzhen China visit.	1. TBA 2. IJ, MV & BT.	1. Subject to WIA representative agreeing too. 2. ILO above.
November	FT8 Digital Mode	1) A practical Presentation on FT8. What equipment you need and its main advantages over RTTY and other digital modes of operation.	Dave Rolfe (VK3JL)	Yes
December	Not Applicable	Christmas get together takes precedence.	NA	Date and location yet to be announced.

EVENTS

MONTH	SUBJECT	Comments	Organiser	Confirmed Y/N/Held
August	Remembrance Day Contest			Held
August	ILLW Weekend	17 to 19th Wilsons Prom Lighthouse	Chris C (VK3QB)	Held
September	Camping Trip	September/Oct. Weekend TBA. Presented to August GM. Possibly Woodside Beach (20 min from Yarram). Tentative Agreement. Most campers currently away.	TBA	
	Refer to September			
October	JOTA/IOTA 19-21 Oct.	GGREC Shack. Attendee: Bruno & Bruce. Graham Brown (if available).	Bruno T (VK3BFT)	
November				
December	Christmas Lunch	Early Dec? Date and location yet to be announced.	TBA	

A DATE AT THE PROM

By Ian Jackson VK3BUF

The third weekend in August sees the activation of the International Lighthouse & Lightship Weekend (ILLW). This began in 1998 in the UK with the Ayr Amateur Radio group seeking to highlight Lighthouses as historic sites. It has grown in popularity and this year 440 entrants from around the world registered for the event. An ILLW site has to be more than a light on a stick. Generally, it has to be a significant structure as an aid to navigation. Operators should be as near as reasonably possible to the structure so that their presence is visible to any visitors to the lighthouse.

It is not a contest and there are no winners. This gives ILLW a different dynamic and takes away the pressure of having lots of short contacts. Indeed most contacts run for 15-20 minutes while participants describe a bit about where they are and how they got there.

This year the GGREC returned to the Wilsons Prom lighthouse site. It is difficult to get to, but paradoxically, once you get there it is a very comfortable venue. Five operators from GGREC and two from EMDRC joined forces and activated the club callsign of VK3BJA.

The lighthouse is an old one. It was built between 1853 and 1859 by convict labour. So it has a lot of history. During WW2 it hosted a top secret Radar installation overlooking Bass Straight. At the base of the lighthouse there is a small but well appointed museum describing its past.

You can't drive there. You can get to a car park at Wheelers Saddle. From there you must hike the 19.5km to the lighthouse. Much of the trail is a National Parks access road, but the last 3km is a rough trail that even the rangers have to traverse.

When you reach the site there is a beautifully restored stone cottage with accommodation for about 12 people. There are bunk beds and some bedding is available. It has an extensive kitchen facility. Guests must bring their own food and take their own rubbish back out. It costs about $150 per night to attend. From an Amateur Radio perspective, it is perfect, with a windowed alcove overlooking the ocean as a prime location for setting up a station. AC power is available from a generous amount of power outlets.

Part of the team: Phil VK3VB, Pat VK3OZ, John VK3BSE Chris VK3QB, Peter VK3ADY

This brings us back to the 2018 expedition. Initially, there were nine in the group, but unfortunately, two had to cancel this year. Most prepared for the trip by going on a few trial walks well in advance. There is no sugarcoating the fact that it is an arduous trip in and out, with most travellers carrying 16-20kg in their packs. To put that into perspective, that's an equivalent to carting more than fifty cans of coke on your back, over some quite large hills for around six hours. Specifically, we carried all of our food and clothes for the two nights away, plus enough antennas, cables power supplies, radios, antenna tuners and computer equipment to establish two separate stations at the site.
Once most of the trail has been navigated, the last kilometre is up a very steep rise, which draws deep from whatever energy reserves (if any) are remaining. So yes, most of us were pretty muscle sore the day after the walk in and hobbled about in small steps. One morning John VK3BSE and myself did walk back down the hill for some sightseeing. There is a seal colony that hangs around a naturally sheltered inlet at the base of the hill.

Quite a few wombats and wallabies are resident to the lighthouse site. The wombats meander about like robot vacuum cleaners, nibbling the lawns down to bowling green quality. We also sighted a whale playing in the ocean close to our rocky outcrop.

A Ranger stayed at the site for the duration to keep an eye on things. He was very friendly and was most accommodating of our 'special needs' as radio operators.

We were fortunate this year as both the walk in and out was free of rain, but the day in the middle was wicked with heavy rain, hail and high winds peaking beyond 130kph. Both of the squid poles we carted in with us were destroyed and the HF dipole snapped a couple of times.

A view from the top of the Southerly most point of Mainland Australia

One critical cable between an antenna tuner and transceiver was left behind. This was problematic. We looked speculatively at the 1940's military tuning unit on display in the museum room, but thought it best not to push our luck. The Ranger came up with a box of junk wire that had been hanging around in a shed for years. From this we were able to fabricate a replacement to the absent miniature DIN patch cable. Some fine wires were delicately shoved into the appropriate holes and the tuner sprang to life.

Radio contacts were quite reasonable, with conversations on 20, 40 and 80M to about 30 other lighthouse sites, mostly around Australia. Chris VK3QB logged some useful CW contacts.

Everyone had brought along their own meals. Some essential wine and port also made the journey. It is a matter of priority really. I had enough pasta and vacuum packed steak to actually put on weight over the weekend. The primary motto being “Yield to temptation, it may not come your way again.”

A retired Fresnel lens on display

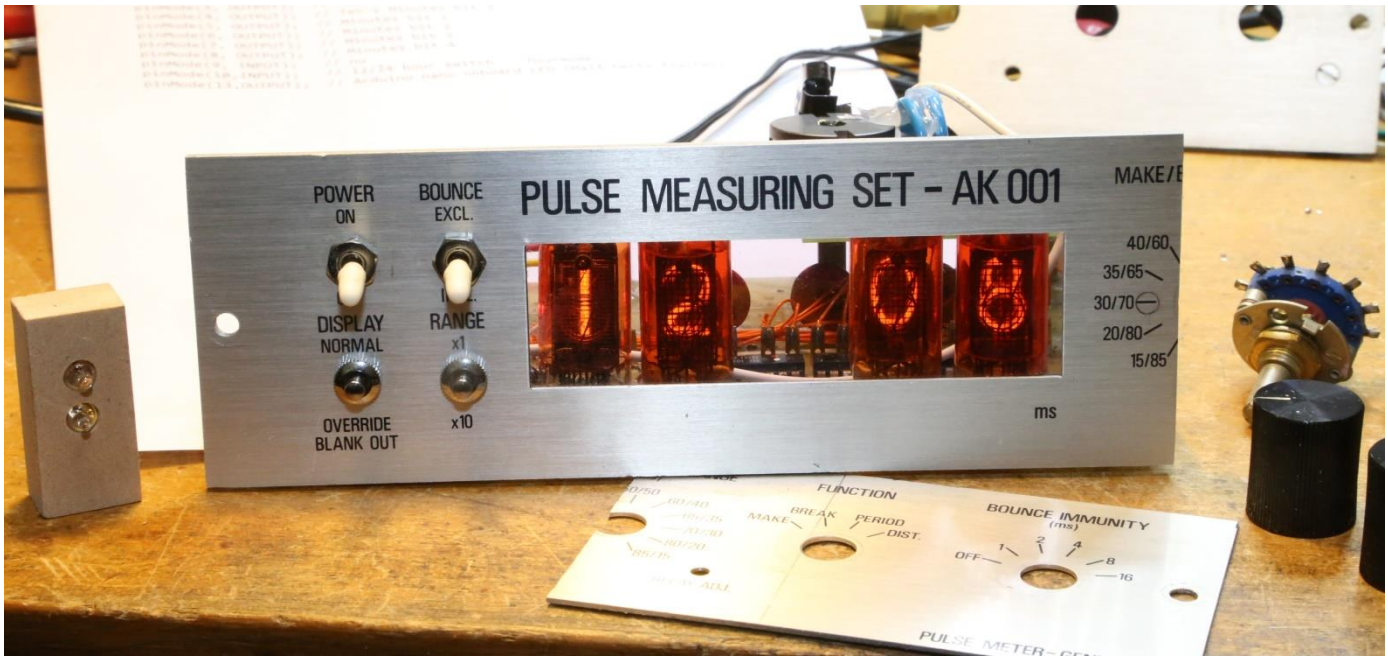
In the museum room there is a cutaway view of a Fresnel lens that had been used at the site. Surprisingly, the entire light-output of the lighthouse comes from a single 35 watt halogen globe. We made some brief experiments with the lens using the LED in a phone as a light source and it certainly showed the focal length gain of even this small source.

The team got on with each other very well and spirits were high for the entire adventure. With their permission, I waved a tiny video camera around during the course of the trip. A lot got cut from the final edit, as high winds pretty much wiped out outdoor conversations, but we finished up with a 20 minute clip which I think tells the story as it happened. This has also been posted on the RASA You Tube channel at: https://www.youtube.com/watch?v=OK4mbI22RYA&t=1s If there is sufficient time at the next General Meeting night we may view this clip on the big screen.

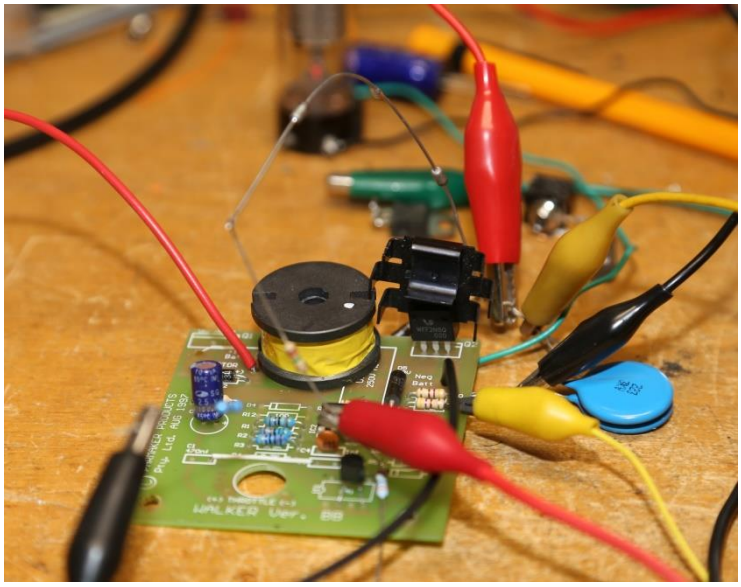
It is important to thank the cooperation of the Parks Victoria officer who hosted our visit and assisted where he could. We were not the average group of bushwalkers, but he embraced our unconventional mission and showed interest in what we were doing. We took great care to leave everything as we found it and I believe we left the option open to repeat the exercise at another time.

A special thanks to Kevin VK2CE is warranted for his work in maintaining the ILLW website and helping to coordinate the participants. His actions have allowed the event to prosper.

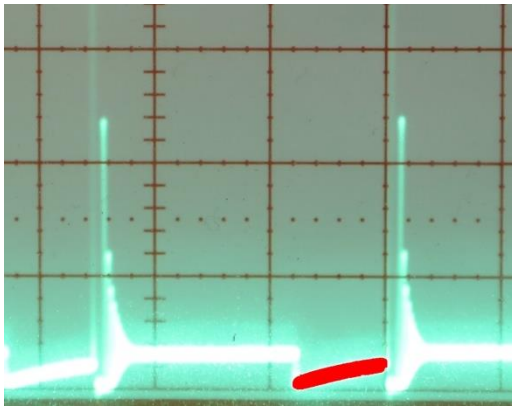
Arduino & Nixie Tubes part 4



Work progresses on my Nixie tube clock, if you remember my earlier pictures; you'll probably notice it just got somewhat smaller. I didn't really have a use for the three rotary switches, or the extra real-estate, so I took to it with a hacksaw and shortened it somewhat.



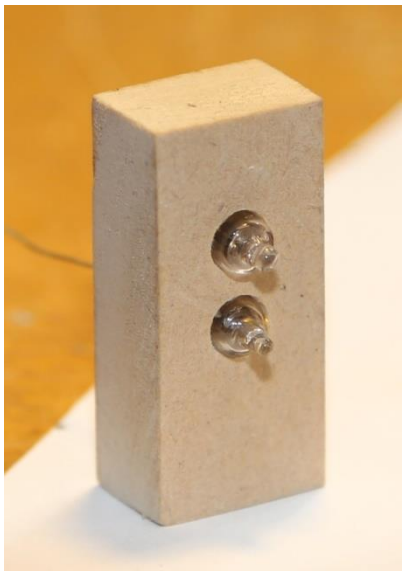
This is the high-voltage inverter, mid hack. The switch mode controller IC is really intended as a motor speed controller, not a power supply, so I have added a transistor to form a feedback voltage controller. I originally took the 200V output and ran it straight into the transistor using a simple voltage divider, however attenuating 200v down to 0.6V for the transistors base didn't give any real control of the output voltage. By the time any output variations reached the transistor they were so attenuated there was nothing left for the transistor to act upon. I had a few possible options, add another transistor to up the feedback gain, replace the transistor with an op-amp, kind of like Ian had originally done on this board in its original guise as a golf caddy motor controller, or as I did, add some high voltage Zener diodes to cut down the 200V to a more manageable level instead of dropping it all on the transistors base resistor.



I went down to Jaycar, the highest voltage Zener diodes they had were 75V so I put two in series, dropping the 200V to under 60V, now the transistor could see a lot more of the output variations and the voltage was now quite stable, even with no load.

This zoomed in scope picture shows the limits of the FET I am using in the supply, ideally the red part, the bit where the FET is turned on should be flat, following the bottom

zero-volt graticule line of the scope, unfortunately the on resistance of the FET is too high leading to the FET getting a tad warm, and needing a small heat sink. This is also somewhat limiting the drive current to the coil, and subsequently limiting the output voltage/power. The board has room for a second FET, this would decrease the on resistance, and hence produce more output, but for the time being I'm getting enough. I'll wait till the colon neon's are fitted to see how the power situation pans out.

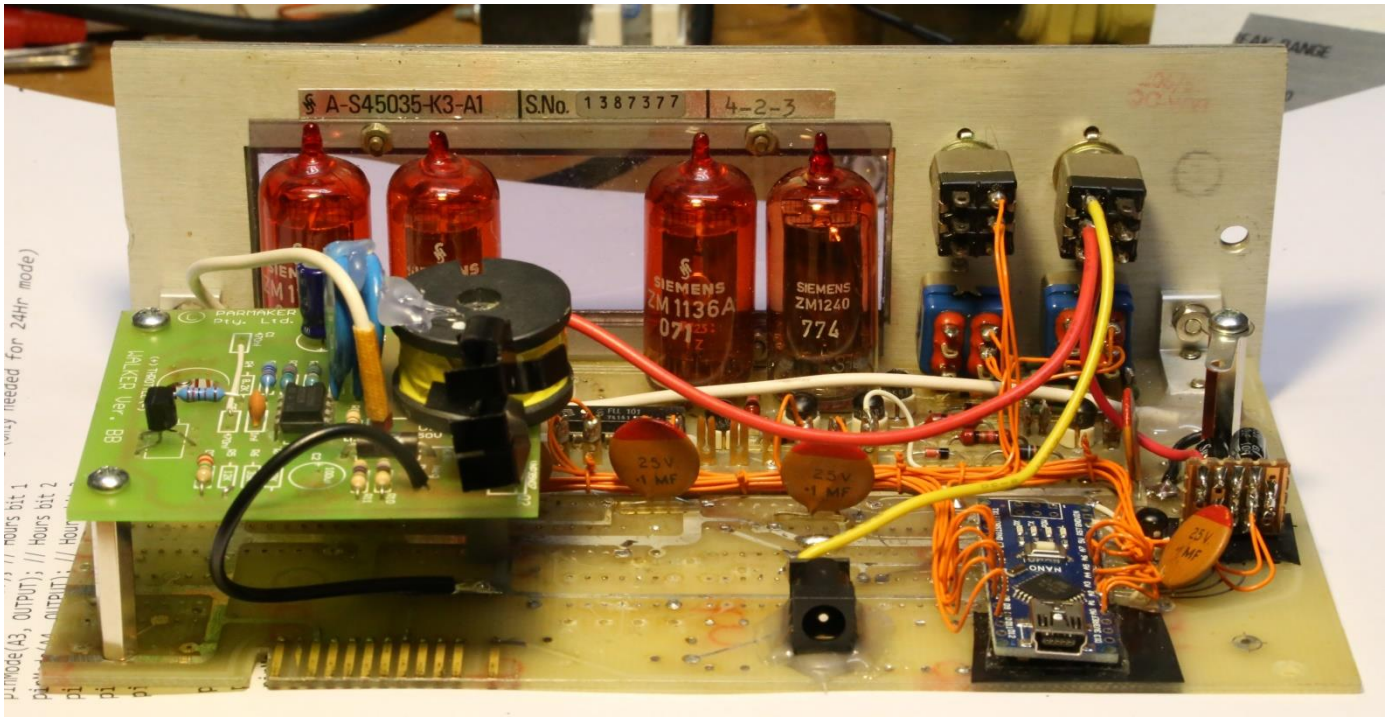


This is my current thoughts for a clock colon, it's a small piece of MDF, about the size of one of the Nixie tubes, I intend painting it matt-black and wrapping some orange film (Thanks Ian) around it to make it kind of look like a real Nixie tube.

However I kind of have my doubts on how the two end mounted neon lamps will look, I may end up rehashing it so the lamps are side viewed instead, I'm starting to think that arrangement will look better.

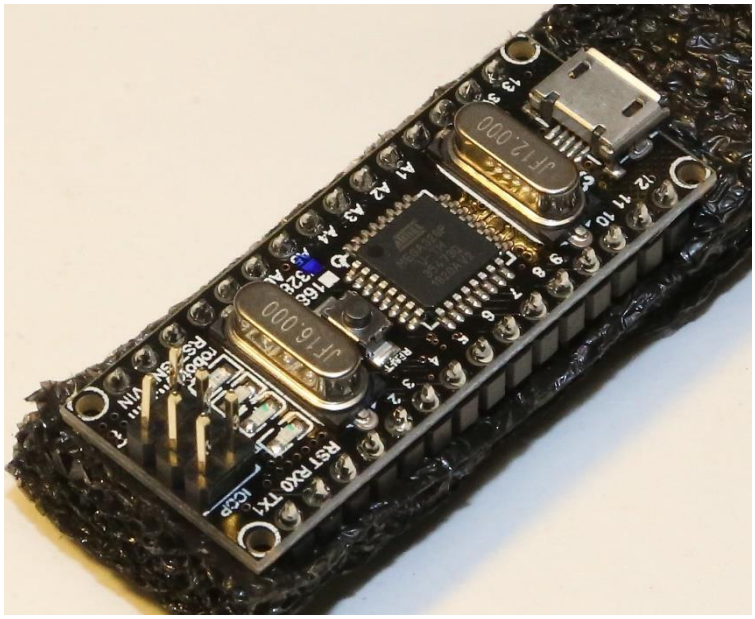
Another option is to try this with some transparent Perspex, that may end up looking somewhat better.

Actually my biggest problem is how to mount it – a blob of hot melt glue appears to be my only option.



Here you can see the workings all but complete; the only missing parts are the colon assembly and a small circuit to feed in my time and date source (that I have looped around my house & radio shack) into the Arduino Nano. This is a very simple circuit needing only one transistor, one 1N914 diode, and a 10K resistor. In my last clock, the binary clock I published a few months back I built it directly on-top of the Arduino, almost dead bug style.

Next comes the cabinet, my current preference is a wooden sleeve, maybe I could get some of that newfangled floating flooring, that comes in many flavours, however the mitre joints I desire will surely test my woodworking skills, and lack of equipment.



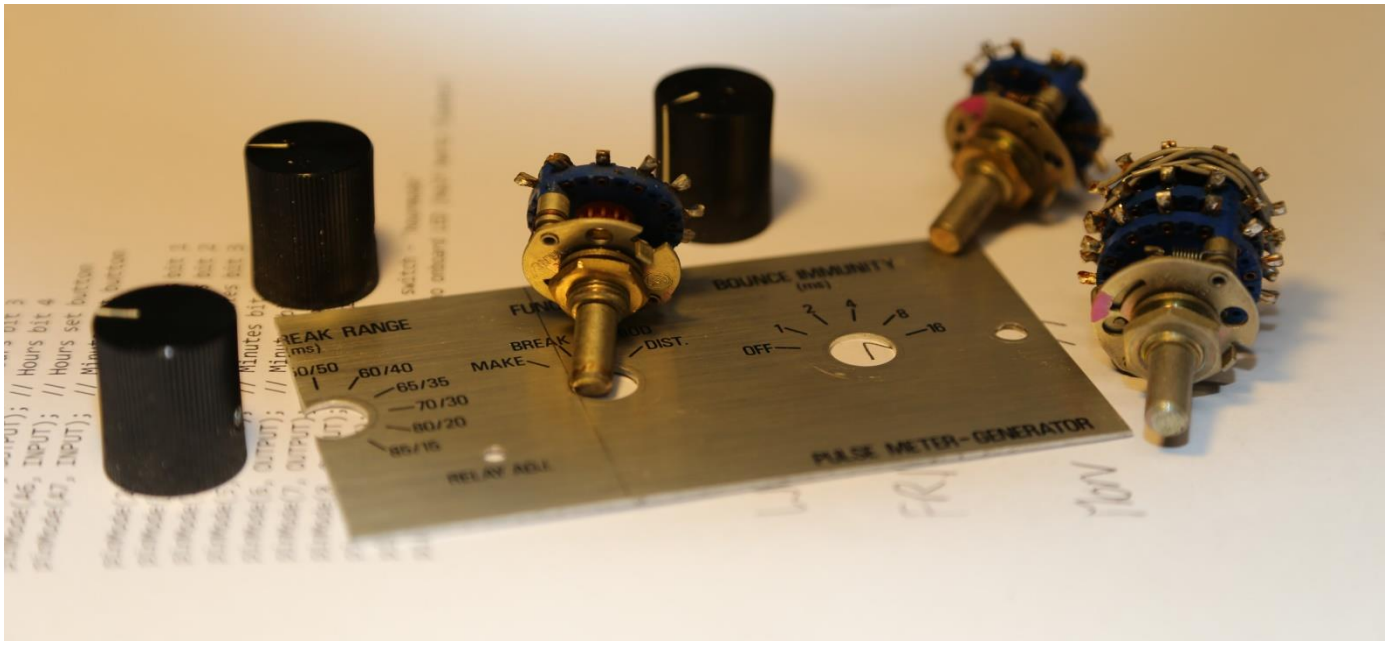
I think I may have found a solution to one of my pet peeves with the Arduino's I've been using so far, the ceramic resonators they use to clock the micro. They are not that stable and don't make for good stand-alone clocks & frequency counters etc.

I found this Nano on Banggood that uses real crystals instead of the resonators. Unfortunately swapping this one into the Nixie clock is not worth it for me, I am using an external time source so it doesn't actually matter that much, plus all the wiring in my clock is directly soldered to the Arduino, so quick board swaps are out.

A while ago I made an 8 digit frequency counter using one of my Nano's, that was before I realised they were using cheap'n crappy resonators. In that case I used an IC socket to connect the Arduino, so making the swap should be painless.

I was planning to put a 16MHz oscillator module in there and feeding that straight into the Atmel processor on the Nano. Now I have two options so it will be interesting to see which one gives the best results.

Unfortunately, in both cases, I will end up with a crystal oscillator that I cannot adjust, short of fitting a much bigger unit with an adjustment trimmer; my only option is to use software to allow for any frequency errors.



Some of the leftovers, actually that front panel offcut will be handy, as I experiment on the best way to remove unwanted silk screened lettering without ruining the panels nice finish.

Paul VK3TGX

FranLab: Big Iron: A REAL Nixie Power Supply

Big Iron: A REAL Nixie Power Supply

Fran Blanche

6.4K views • 2 days ago

YouTube can be a great source of information on many subjects, electronic.

One of the good ones is FranLab, by Fran Blanche.
https://www.youtube.com/channel/UCMLgHbpJ8qYqj3CkdbvC0Ww

Just the other day she posted one on a Nixie tube power supply she called 'Big Iron'

https://www.youtube.com/watch?v=lX9FZycOW9E

Have a look.

The only downside is getting a suitable transformer, an obvious source is old valve radio's, however these are getting incredibly scarce these days, Our recent GGREC hamfest was a good example of this – I didn't see any, plus some would also say you're a heretic if you mentioned you were buying the radio to strip it for parts.

One alternative is to use two transformers, one, say a 15V multi-tap transformer as a general power supply for your project, (for the 5V rail etc.) then add a smaller 240 to 9/12 V transformer, but instead of connecting it's primary to 240V, instead connect it's secondary to the output of the first transformer, to step the 9V etc., back up to about 200V. By playing around with the taps and using a simple rectifier (Fran style) DC converter afterwards, you should find a combination that works for you.

Note, you don't have to hit 200V exactly, anything from 190 to 280V should do. As the voltage gets higher, you will probably have to increase the limit resistor's feeding your tubes to keep the current within manufacturers specs (or lower for extended tube life – like I have).

And while we are on YouTube & Nixie's, have a look at EEVBlog's project.
https://www.youtube.com/watch?v=7uogKucrPks&list=PLvOlSehNtuHutdg1kZkG7aAYhjoJnk2fc

Paul VK3TGX

The Antenna that Wouldn't Rotate (Part 1 of 2)

The complaint from the membership was that the HF Log Periodic Beam antenna couldn't be rotated and Ian (VK3BUF) had volunteered to organize a working bee to fix the problem. With that in mind Michael (VK3GHM), Bruno (VK3BFT), Barry (VK3ABH), Ron (VK3FRDL) and myself (VK3BRW) all agreed to give Ian a helping hand.

I might add that we were all happy to put Ian in charge of the operation, as ten to twelve years ago (no one is exactly knows for sure), he was asked to do a similar thing. Besides you have to have monkey like skills to sit on top of the mast, three meters above the ground, when it's in its near Horizontal position, to allow for the removal of the rotator.

The rotator itself was the prime suspect, of all our problems, at least at this point in time. And Ian was the man to climb up there and remove it. Besides, Ian was the only one who had been to Asia and had taken the time to study monkeys, behaving in their natural habitat, so he knew how to climb like one. As for the rest of us, well we all had bad backs, so that ruled us out anyway. Refer to Photo number 1 below.

Photo No 1. Ten Years ago showing Ian's Climbing Skills

So now that we had the right team assembled together, with the necessary skills and expertise to do the job, the next thing to do was to find a day that suited us all along with favorable weather conditions. That proved more difficult than first thought, as it was either raining, too windy or both to proceed.

Anyway on Friday the 14th September all that changed with glorious sunshine and no wind. So we all met up at the shack in Cranbourne around 2pm, to tilt the tower over and do a general cleanup and inspection, before deciding what to do next. Refer to Photos 2 & 3 below.

Photo No 2. Part of the assembled team. From Left to Right - Bruce, Bruno, Ron & Michael

This time, unlike the last, we decided to use the roof of Ian's van as a convenient working at heights platform, to make it easier and safer to cut the cable ties holding the rotator control cable away from the mast. and remove the suspect Rotator from the mast itself.

The plan was to remove the existing rotator and then to park a temporary rotator in its place. The temporary rotator was on loan from Ian and was only being used to support the two inch diameter mast pole which holds up the beam Antenna in its correct position, whilst the primary rotator was being refurbished or replaced.

Photo No 3. Ian Inspecting the Rotator with Barry Requesting a ring spanner to remove it

After freeing up the rotator mounting bolts and removing the existing rotator (was that a ring spanner or a monkey wrench you were requesting for Ian, Barry) , it soon became apparent that the temporary replacement rotator had a different bolt mounting pattern to that of the existing rotator and was about 100mm longer. Refer to photo No. 4

The rotator mounting plate is a universal mount type, and is located inside the frame lattice, approximately half a meter or so from the end of the main mast. Other holes in the plate did roughly align, but still had to be drilled out to make the rotator fit properly. This is harder than it sounds because it's not that easy to get the drill into the correct location inside the lattice work, to allow the drilling to take place.

As for the replacement Rotator being 100mm to long? Simple to fix you say. All you need to do is slide the antenna mounting pole a further 100mm away from the rotator by pushing it through its main support bearing located at the end of the mast.

Photo No 4. Removing The existing Rotator and fitting the temporary one

To do this you need to undo two grub screws to allow the mast pole to freely move in and out of the main support bearing. Yet despite all the efforts of the ground crew pulling on the antenna itself, whilst trying to keep the antenna and its pole in correct alignment, along with Barry and myself pulling on the pole from above, it soon became apparent that the pole wasn't going any ware soon. Even using iron bars as levers on the end of the pole couldn't get it to move.

Further inspection of the main bearing showed that it was completely rusted up as well as being seized to the mast pole. So the next thing to do was to remove the two bolts holding the bearing housing to the end of the mast and to bash the whole assembly with a hammer until it let go from the pole. Fortunately this idea worked, allowing us to fit the temporary rotator to the mast.

So why had the main bearing failed in the first place? Well it turns out that the protective boot covering it was badly torn, allowing water to penetrate and sit on the top of the bearing, which is mounted horizontally to the ground, when the mast is in its upright position. Refer to Photos 5 & 6

Photo No. 5 Showing torn cover that fits over the top of the main bearing to protect it

Photo No. 6 Bearing housing after removal showing seized bearing

With the temporary rotator fitted to the mast and the bearing removed, it was now time to fit the mast pole to the rotator. This went without a hitch (if you pardon the pun),

It was now time to maneuver the mast with its antenna back to its proper upright position. This involved Bruno carefully moving the mast assembly away from the Girl Guides hall building, whilst the ground crew made sure that the antenna elements didn't dig into the ground or hit the building next to it. Barry and Michael had the added job of keeping an eye on the coax feed line and control cable and to make sure they were free to return to their rightful positions.

With everything looking good, Bruno winched up the mast to the vertical position and locked the mast off so it couldn't move. In actual fact this was winched up in stages as we also have a Centre fed dipole hanging off the mast top and this also had to be pulled up using a pulley and rope arrangement, taking the slack out of the antenna and avoiding other objects as we went.

Where to next? Well we are hopeful that the Rotator motor hasn't burnt out, due to the seized bearing putting it under undo pressure. Needless to say Ian has agreed to take it home to test and service it, if that turns out to be viable. The consciences of opinion is that the bearings will probably need to be cleaned and lubricated and the resistive potentiometer used to indicate direction of rotation, be replaced as these always wear out over time

So stay tuned as they say, when Ian (VK3BUF) does a Part 2 of this article, covering pulldown and his findings in the October addition of Gateway Magazine..

Bruce VK3BRW

General Meeting 17/08/2018 – Did you come, or did you miss out – Your loss.

The Swedish Morse Key

In early 2002 my former employer (IBM) sent me to SM-land for a seven week assignment. That short project turned into a four-year international assignment. Working and living in Sweden and northern EU was a fantastic life experience.

I spent some time living in an old waterfront apartment (built circa 1644) in Gamla Stan (The Old Town) just to the south of downtown Stockholm.

On weekends, I would often wander the streets looking in the stores and admiring the architecture. I recall with some fondness picking through an antique store in Gamla Stan and came across an old Morse Key. I scooped it up for about 500 Kroner (About AUD$100 at the time) and packed it away for some future use.

The key on the black base was found in an antique store in the old town. The better-looking model is currently in use; acquired in recent years from Herman VK2IVX.

On returning to VK in 2006 I dug the old key out from the many boxes of "stuff" that arrived on my doorstep from the international removalists and did a bit of google research. It turns out the old key was an Öller Key made by Lindholm and Wikström sometime between 1890 to 1905.

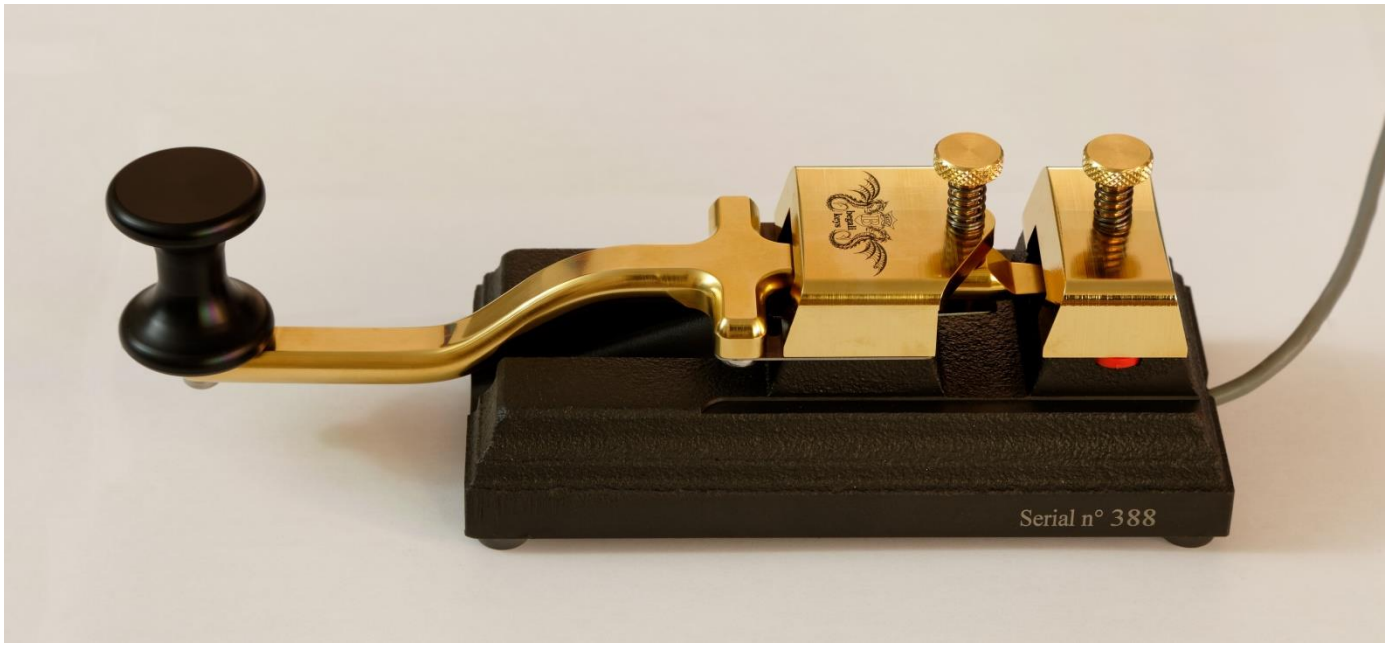
This style of key was originally designed by Anton Öller in 1857. Two of his machinists, Lindholm and Wikström broke away from Öller on 1878 and started their own business. Another Öller employee, Lars Magnus Ericsson formed his own company on 1876 repairing telegraph equipment. His company went on to develop telephone equipment and is still a global telecommunications company today.

The design of this key was very popular and was used by various Scandinavian and UK companies and defence forces for over 120 years. Later in the 20th century a popular variant known as the Swedish Pump Key was produced by Lennart Pettersson (ca 1960) and today we have a modern version; the "Blade" by Begali.

More recently I purchased a model in better condition from Herman VK2IXV and this is my current operational straight key. I've also got my eye on the Begali Blade – I hear it's a pleasure to use.

Ref: telegraph-office.com, ericsson.com

The Begali Blade



http://www.i2rtf.com/blade.html

Club Information

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

Office bearers

President	Bruce Williams	VK3BRW	Web Master	Mark Clohesy	VK3PKT
Admin Sec	Michael Van DenAcker	VK3GHM	Magazine Editor	Paul Stubbs	VK3TGX
Treasurer	Chris Chapman	VK3QB	Property Officer	Bruno Tonizzo	VK3BFT
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General 2	Ron Lacey	VK3FRDL			

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 VK3RLP, In 434.475MHz Out 439.475MHz CTCSS 91.5Hz
VK3RLP Repeater supports Remote Internet access (IRLP), Node 6794.
70cm Repeater Seaview VK3RWD, In 433.575MHz Out 438.575MHz CTCSS 91.5Hz
Simplex VHF - 145.450MHz FM, Simplex UHF - 438.850MHz FM
VK3RLP Beacons 1296.532MHz & 2403.532MHz (currently inactive)

Membership Fee Schedule

Pension 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 at each April Annual General Meeting.

Magazine Articles to editor@ggrec.org.au or vk3tgx@gmail.com Cut off, 10th
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