



MARCH 2024

Volume 13 Issue 3

VE3ERC-LUB

President: Reg VE3RVH
Vice-President: Frank VA3FJM
Secretary: Tom VE3DXQ
Treasurer: Ted VE3TRQ
Trustee: Wes VE3ML
QSL Manager: Kirk VA3KXS
Repeater Trustee: Wes VE3ML
Website Admin: Ted VE3TRQ
Lighthouse:
Maple Syrup Display:
Newsletter: Bob VE3IXX
ERC Website: <https://ve3erc.ca>

ERC REPEATERS

UHF 444.700 + TONE: 131.8
UHF 444.700 + TONE: 123.0
VHF 147.390 + TONE: 123.0
VHF 147.255 + TONE: 131.8
EMERGENCY SIMPLEX: 146.550
UHF-IRLP node 2404,ECHOLINK VE3ERC-L
VHF- IRLP node 2403,ECHOLINK VE3ERC-R

**In an emergency, tune
 Into our repeaters,
 UHF 444.700 or
 VHF 147.390 or
 HF 3.755 LSB or
 Simplex 146.550
 For coordination and
 assignments.**



**DIY mobile Whip Antenna
 See page 9.**



**Radio Amateurs
 of Canada**

THE PREZ SEZ!

This club is Radio-ACTIVE
 The club is Radio-ACTIVE

President's Update for March 2024

Here we are well into a new year, 2024 looking back over the past when the memberships was 10 to 15 members and now our club has grown to 51 plus. Our morning ham sessions/nets daily consist of 9 to 14 early callers who show a keen interest in ham radio and consistently come up with new topics to discuss. It allows for the members to share each one's experiences about the different topics.

Now just two months to go and we will gather our left-over belongings which have been gathering dust and come together for the Central Ontario Hamfest in Roseville on Sunday, June 2. We will have three tables of articles for sale, so come and join the fun.

Also, I would like to thank those members who have stepped up to accept the nominations list. I will be stepping down after one year as president now being 83 years and experiencing health issues. As well it is good to get new and younger members who can contribute new ideas and knowledge to enhance the club.

Thank you for all your support.

Reg VE3RVH



Thanks to Barry VE3ISX

For sending a Recorded Zoom Meeting
 For the **Hamilton Amateur Radio Club**
 (Recorded on March 28, 2024)

Guest Speaker was Rob McKenny VE3RMJ,
 Senior 787 Dreamliner Captain
 Topic : "Ham Radio in the Cockpit"

<https://youtu.be/BSeQgEtAS4M>





Key Restoration

By Mike Kassay VE3MKX

While at Hamcation (a great event) this year, I picked up this little Gem. It was found at one of the club tables located inside the Swaps building.

When I saw it, I said, 'wow it was way cool' .. It didn't have any markings on it and the seller said he thinks it was home made.

The hamfest bartering fun then began. He wanted \$40 for it and me, being the cheaper than usual Ham, I said 'How much do you want for this \$30 dirty old key ' ?? He laughed but did not budge on the price.

Being from the North I calculated the price with the 35% currency exchange rate.

So I started to hem and haw....it was one of those.... Do I buy it or not. I'd kick myself after if I didn't !!

I bought it ! I'm glad I did !

After my southern vacation I placed it on the bench, for the restoration that was about to begin.

I took apart the key taking various pictures along the way so I wouldn't have anything placed in the wrong spot or left over. Even something as simple as fastener lengths could make a difference placed in different spots.

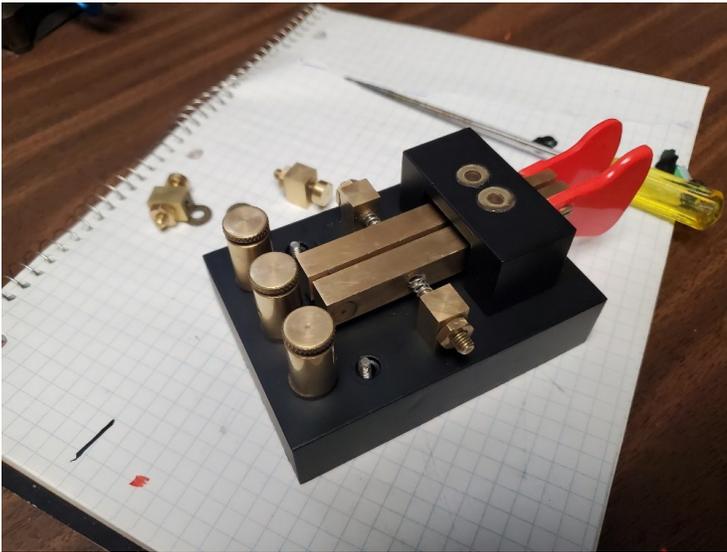
I got out the Brasso cleaner, fibre cloth, Q tips, and rubber gloves. In hindsight it might have worked better cleaning with a toothbrush. I'll save that idea for next time! Once the key was totally dismantled, I inspected all the parts. The black base was too far gone with



scratches and chips to restore to my liking.

So I then took some 220 grit sandpaper and gave the base the once over. I went over to the local Walmart and picked up some flat black Rustoleum spray paint. I was expecting a true flat dull black finish. What I finished with was like a flat egg shell black which to my surprise I like a lot better ! After each coat of paint (let it dry for 24 hrs) I then did a quick sanding with 220 grit water paper. So after three coats of paint it was done !

The key came with very small wooden finger paddles. I wasn't a fan of those



because of the size and shape. So I went into my junk drawer, sorry my 'ham radio treasure collection' and found a pair of spare Begali finger paddles. These finger paddles were acquired a few years back at Dayton, another fantastic don't miss event ! With a little cutting I made these fit onto the cleaned brass arms of the new key !

The key was then reassembled. One thing that I did do while reassembling was to wear gloves, so I wouldn't leave fingerprints all over the freshly restored key !

I also gave the swivel arms a few drops of wd40 which would prevent any sticking ! The reassembly went fine. The overall pro-

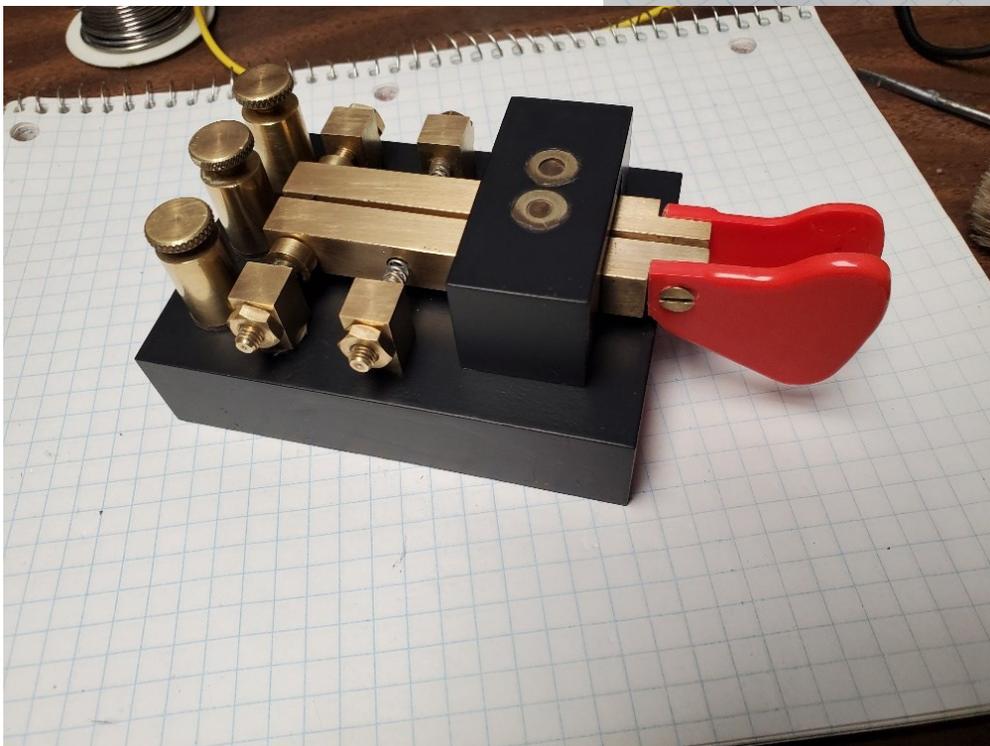
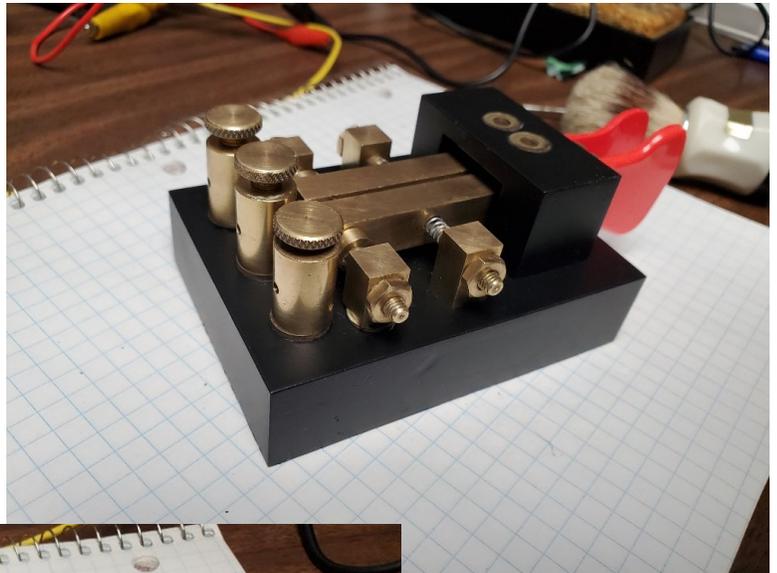
ject took a few days to complete. I did place a small piece of cupboard lining rubber under the base of the key to prevent the key from moving on the desk when in use.

The key weighs about 5lbs, so it didn't move much to begin with, but ya never know !!

Overall the key has a very nice feel to it, I still have some tweaking to do to get the paddle to my liking !!

It was a fun little project. If by chance you know anything about this key, please let me know !

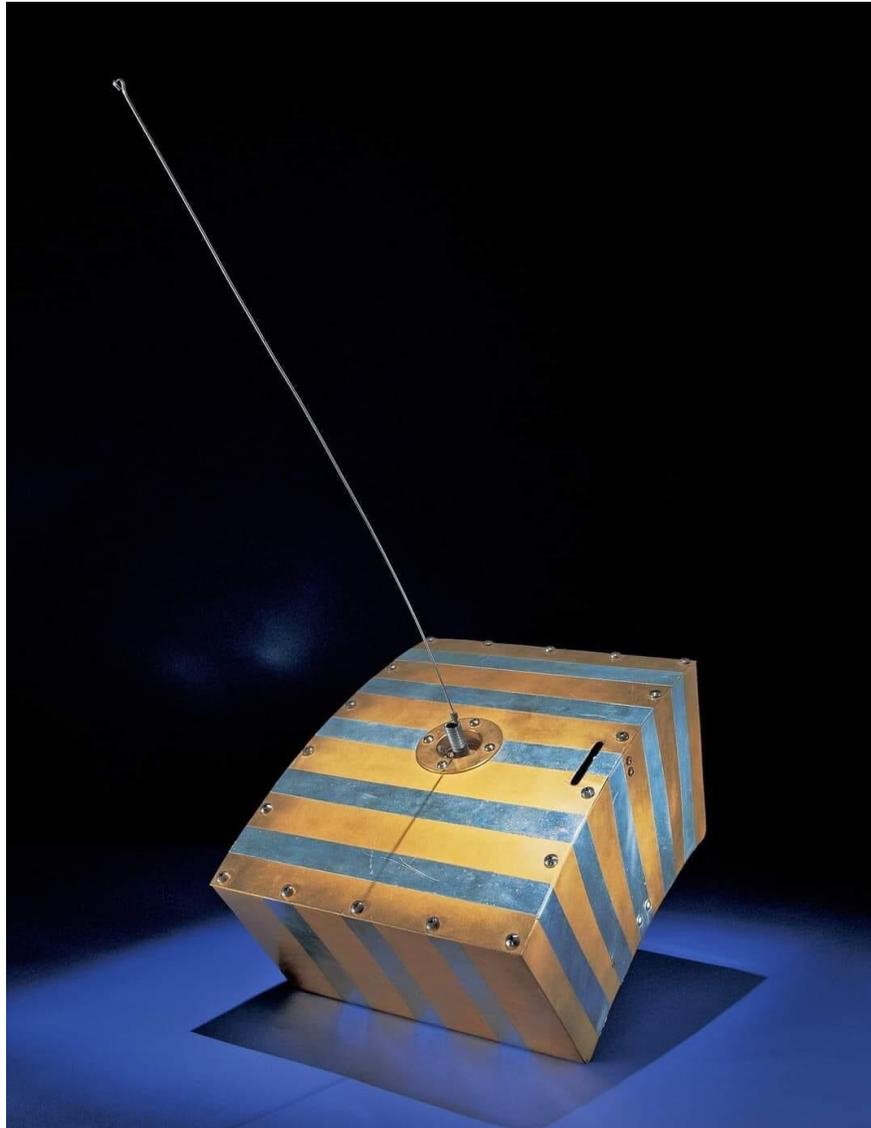
Have a great day and see you at FDIM at Dayton !





**From
the**

PAST



This is OSCAR 1, the world's first amateur, non-government satellite. "**OSCAR**" means "**(O)**rbiting **(S)**atellite **(C)**arrying **(A)**mateur **(R)**adio". It launched on #OTD in 1961. Built for only 63 dollars, it operated for nearly 20 days, during which thousands of radio operators in 28 countries detected the satellite's simple "hi-hi" morse code message. It marks the beginning of amateur radio's journey to space. Today, AMSAT and amateur radio groups worldwide continue the legacy started by Project OSCAR.

73 Tony VE3DWI

How to replace the cable in a NMO magnetic base

By Daniel Romila VE7LCG

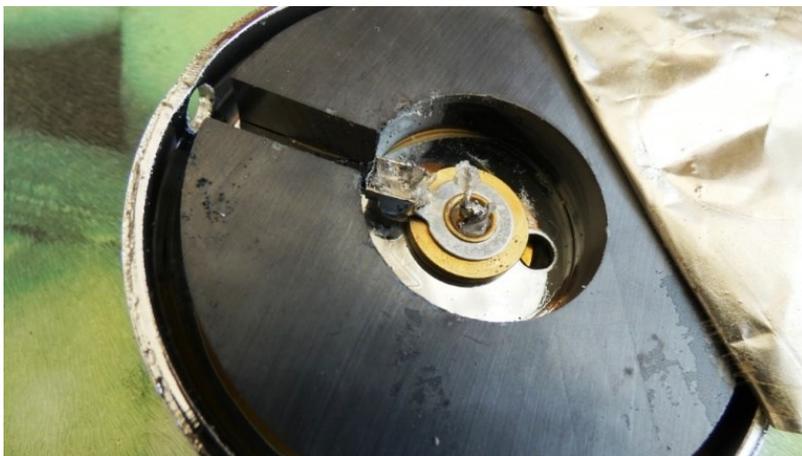
I had an NMO magnetic base with a 3 meter cable attached to it. 3 meters would be long enough for using it in a car, but not long enough on my balcony. I do have plenty of cable, so that was not an issue. I could not find anything on the Internet about what to expect inside such a magnetic mount, so I took pictures while I worked on it and wrote this article.



The base has a glued folio where it touches the magnet on one side, and a non-glued part to the exterior, that side that will touch the surface on which the mount will be attached to.

In the above picture I already removed the wax cork that protected the electric soldering. It looks like this on the right.

Whatever you would do, the wax cork would be damaged. It is important SO just take it out – for the moment – so as to have access to all the points where you need to re-solder a new cable.



As you can see from the picture in the left, there are two points to solder: the inner part of the cable, and its ground.

The ground part of the cable is also mechanically fixed on the magnetic mount, so it is very difficult to unsolder it, as it requires a lot of heat.

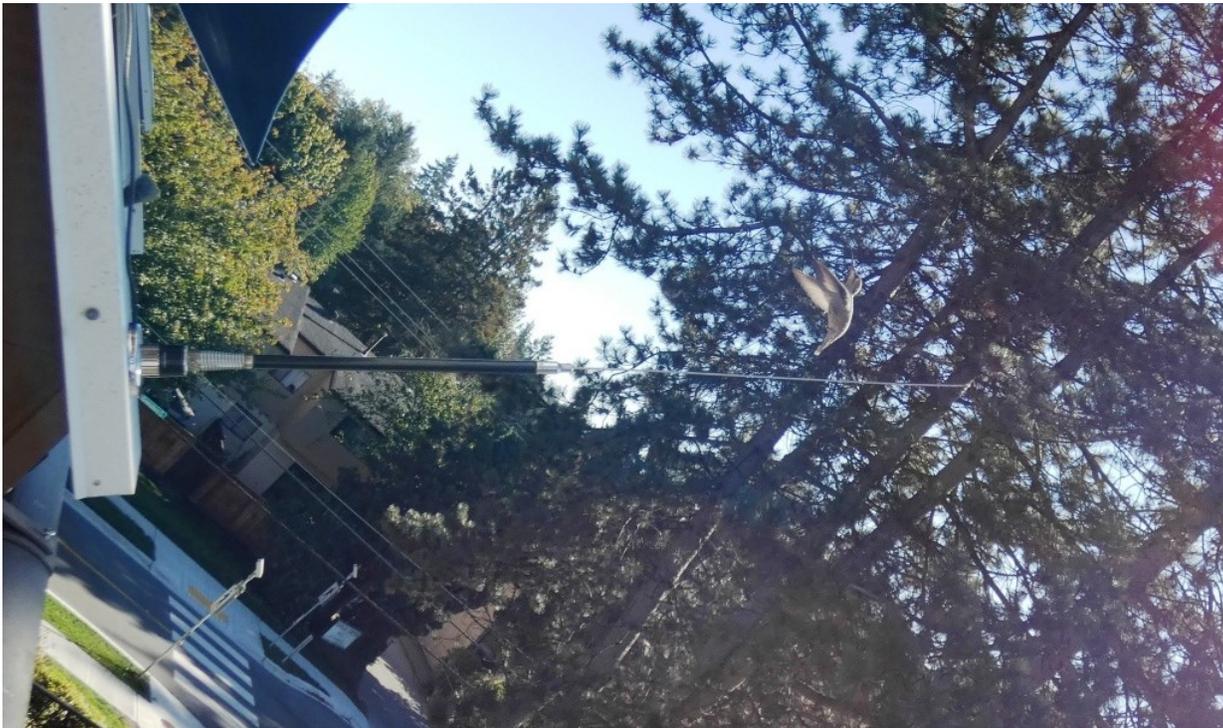
I simply cut the inner part of the cable. Then I could heat the soldered braid and pull the coax out as soon as it melted.

Then I attached and soldered the new cable.

The wax cork has to be replaced, to protect the soldering points and the cable from water and moisture. I put the wax back as best I could and then heated it with the soldering gun drawn into the wax. This melted it so it would adhere to the base.

I cleaned everything after this picture was taken. It is important to keep the bottom (the magnet and the wax cork) perfectly flat in order for the magnet to have a maximum surface of interaction. The wax becomes fully transparent when melted. Be careful in heating the wax because too much heat can damage the magnet and the cable. I flooded the cable part with the wax and I added glue on the magnet and edges, for resealing. I also flooded the hole for the cable with glue.

In the end I put back the folio over the magnet, and stretched every little point to keep it completely smooth and level.



After I finished, I installed the antenna on the balcony and measured, to make sure everything was OK.

I even had quality control help from one of my friends, a hummingbird that lives nearby and often spends time with me.

CONTRIBUTIONS TO VE3ERC-CLUB NEWSLETTER

Do you have an article you'd like to submit? Or photos? Do you have any comments you'd like to make?

Perhaps you'd like to share a photo of your shack, a special project you are working on or a special interest!

SEND THEM TO:

**Bob bobve3ixx@gmail.com
(519-787-2279)**



WEDNESDAY NITE NET CONTROLLERS

FEBRUARY 14 - TED VE3TRQ

FEBRUARY 21 - TONY VE3DWI

FEBRUARY 28 - MEETING

MARCH 6 - BRIAN VA3DXK

MARCH 13 - BILL VA3QB

MARCH 20 - BOB VE3IXX

MARCH 27 - MEETING

APRIL 3 - REG VE3RVH

APRIL 10 - HAGEN VE3QVY

APRIL 17 - FRANK VA3FJM

APRIL 24 - MEETING

MAY 1 - TOM VE3DXQ

MAY 8 - TED VE3TRQ

Build A Simple 1/4 Wave Whip

By Bob Koechl VE3IXX

My mobile whip antenna for 2 metres had "bitten the proverbial dust". In reality, it snapped off when it met with a low tree branch and my grandchildren actually found it lying in the ditch.

Because I enjoy building my own antennas, I decided to replace it with a homebuilt quarter wave to mount on the car rooftop. For that I ordered a fairly heavy duty magnetic antenna mount with an SO-239 connector from Amazon. This came to about \$39.00.



From there all I needed was a PL259 connector along with a metal rod approximately 22 inches long, both of which I had in my junk box. I soldered the rod to the centre of the PL259 and added some electrical tape just above the soldered part so it would be isolated from the grounded metal of the connector. Using the formula $246/146$ MHz (146 is roughly the middle of the 2 meter band), I got 1.7 feet or just over 20 inches. I cut the rod to 21 inches, then placed the mount on the car roof and attached an antenna analyzer.

As expected, the SWR was 1:1 near 140MHz. So then I started snipping a little off the end and re-measuring.

But as is often the case with me, I ended up snipping just a little too much. After the last cut the SWR was 1:1 at about 149.5 MHz, just a little too high. Actually, it would have been okay as it was still below 2:1 at 145 MHz but I was just not happy about the situation.

In my junk box I had a "quick connect terminal block" as shown in the picture. By taking out the two tiny screws of one section, the brass barrel inside slides right out. (see picture on the right)



I slid the barrel over the end of the antenna tip and replaced the screws and tightened the barrel onto the antenna. Again see the picture.

If needed, it had a little play and I could loosen the screw and move it slightly up or down.

However, it turned out almost perfect. The analyzer gave me a 1:1 SWR at about 146.4.

To finish it off, I added some dielectric grease (used for spark plugs for a car) to water-proof it from the elements and I was ready to test it out.

After the ERC meeting in Elmira, I drove home and had no trouble reaching the repeater and getting good signal reports right to the time I neared my home which is, if anything, on the periphery for the said repeater. All is well.



DLARC Amateur Radio Library Tops 90,000 Items

Posted on [September 12, 2023](#) by [kaysavetz](#)

Internet Archive's [Digital Library of Amateur Radio & Communications](#) has grown to more than 90,000 resources related to amateur radio, shortwave listening, amateur television, and related topics. The newest additions to the free online library include ham radio magazines and newsletters from around the world, podcasts, and discussion forums.

Additions to the newsletter category include [The Capitol Hill Monitor](#), a newsletter for and by scanner radio enthusiasts in the Washington, D.C. region — a complete run from 1992 through today. DLARC has also added more than 300 issues of [Florida Skip](#) and its follow-on magazine, SKIP CyberHam, donated by the family of the publisher. Both Capitol Hill Monitor and Florida Skip are online for the first time, scanned from the original paper.

DLARC has also added newsletters from an additional 35 ham radio clubs in the United States and Canada, including hundreds of issues from the [Orange County \(California\) Amateur Radio Club](#), the [Northern California Contest Club](#), [Palo Alto Amateur Radio Association](#), [Acadiana \(Lafayette, Louisiana\) Amateur Radio Association](#), [Mesilla Valley \(New Mexico\) Radio Club](#), and others.



New additions of Canadian club newsletters include 900 issues from the [Lakehead Amateur Radio Club](#) in Ontario, the [Montreal Amateur Radio Club](#), and the [Halifax Amateur Radio Club](#). Raleigh (North Carolina) Amateur Radio Society contributed more than [700 issues of its Exciter newsletter](#), which DLARC scanned for the first time. [Fort Wayne \(Indiana\) Radio Club](#) has contributed newsletters and other material documenting its 100-year history. The Society of Wireless Pioneers, a program of the California Historical Radio Society, contributed [documents going back to its founding in 1968](#).

The Cal Poly Amateur Radio Club donated hundreds of radio manuals, catalogs, and magazines — literally emptying file cabinets of material. DLARC has scanned them all and [made the trove available online](#).

DLARC has expanded its collection of e-mail and Usenet [conversations about ham radio from the early days of the Internet](#), with the addition of thousands of messages from [Glowbugs Digest](#), an early Internet discussion list about tube-based radios. This collection includes posts spanning November 1995 through March 1998.

DLARC has also added more than 750 [books and articles written by Donald Lancaster](#), the American author, inventor, and microcomputer pioneer who died earlier this year; and scans of hundreds of [vintage electronics and radio catalogs](#).

New additions of podcasts and videos include 200 episodes of the defunct [Southgate Vibes](#) podcast from the UK; the [Ham Radio Guy](#) podcast; and archives of ham radio YouTube channels [KM6LYW Radio](#) and [HB9BLA Wireless](#). More than 1,400 historic recordings and contemporary audio clips are available courtesy of [The Shortwave Radio Audio Archive](#).

Digital Library of Amateur Radio & Communications is funded by a grant from Amateur Radio Digital Communications ([ARDC](#)) to create a free digital library for the radio community, researchers, educators, and students. DLARC invites radio clubs and individuals to submit material in any format. If have questions about the project or material to contribute, contact:

Kay Savetz, K6KJN

Program Manager, Special Collections kay@archive.org

Mastodon: dlarc@mastodon.radio

Thanks to Mike VE3MKX. Check out the ["Internet Archive"](#) on line.

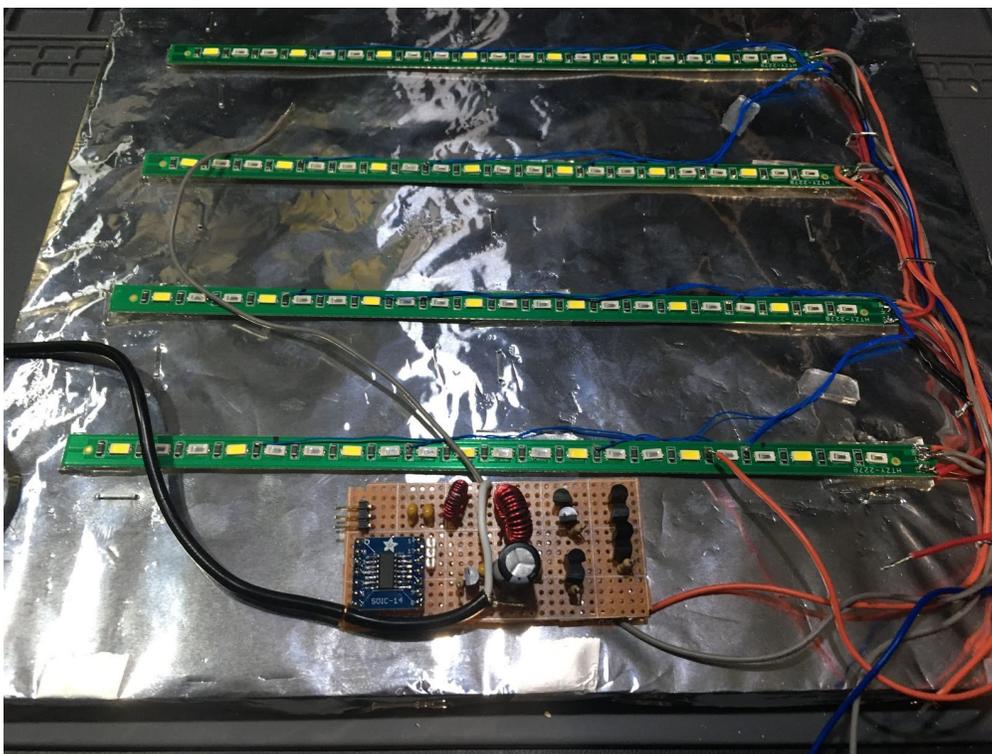
Mr. Phillips - an experiment in growing plants

By Hagen Kaye VE3QVY

I enjoy doing science experiments, so this year I thought I would try to recreate an experiment done by Phillips - the makers of LED grow lights.

As the story goes, they wondered if a plant was aware that there are 24 hours in a day, or did they just respond to light followed by darkness. They discovered that some plants, as long as they got enough light, they could compress a 24 hour day into 2 days, thus increasing the plant growth by two times. Besides the amount of light, the colour of the light had to vary to simulate the sun rising and setting - more blueish in the morning, reddish at night.

So I thought, what the heck, can I replicate these results? Only one way to find out. I bought two of these cheap grow lights from Amazon. They had blue, red and white LEDs. Each one had two strips, so taking them apart gave me 4 strips of grow LEDs. The blue and red LEDs were connected together so I had to use an Xacto knife to separate the traces on the PCB and ended up with the three different colours of LEDs individually controllable.



I wanted the plants to be in its own environment so I thought I would build a simple 12x12 wooden box, lined with tin foil (insert tin foil hat joke here) to reflect as much light as possible.

Wired these up with a little microcontroller that would simulate a day in about 12 hours.

Starting with the blueish sunrise, full light during the day and ending with a nice reddish sunset.

Then darkness, only to start up again



The plant of choice is a Marigold flower. Easy to grow, blooms in about 50 days, so if I can get anything earlier than that, I'll have some measured success. I didn't want a power interruption to ruin the experiment, so this is all plugged into a Jackery battery backup.

Planted the seeds, it sits on my desk next to me. I call him Mr. Phillips.

So, fast forward 10 days since the seeds were planted. Success! I didn't kill any of the plants, and they just started to get their second set of leaves.

A quick Google of how long Marigolds take to grow and I found a time lapse video. In that video, the plant is at this stage on day 12.

Hmmm, will it grow faster? Only time will tell. But science experiments are always fun

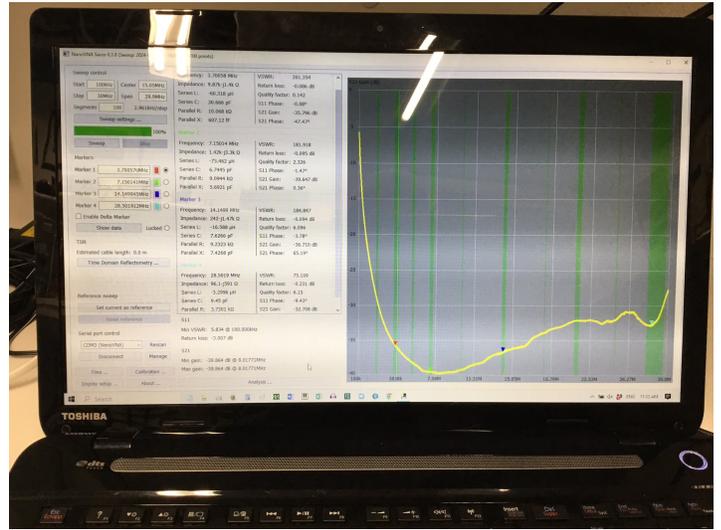
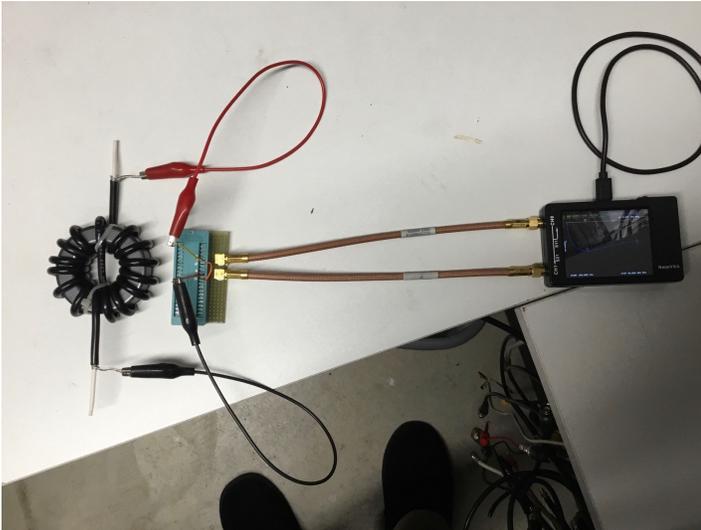


CORRESPONDENCE

Mark VA3AZH sent the following excellent Youtube video:
 Measuring Common Mode Current Chokes with a NanoVNA
 Good video for building a simple test rig for CM chokes.

<https://youtu.be/3ReRu7Yt4Ao?feature=shared>

Here's my version and the results:



Cheers,

Mark/ VA3AZH

Mike VE3MKX sent the following:

- Limited antenna possibilities ?? POTA ? ??? check this out !!

HF Directional Wire Antenna for 20m - Ideal for a Garden

Something to try this spring/summer.

"Every so often I come across an antenna that is a little different and offers some interesting possibilities. This is just one of those antennas. It has directional properties, is very low cost, and is ideal for both small gardens and portable operation. I hope you find this Video interesting."

Peter G3OJV

link: <https://www.youtube.com/watch?v=Q26javCp2SQ>

RX ANTENNA PROJECT PART 1 & II - (REDUCING HYDRO NOISE)

By Randy Yakabuski VA3XV

Even though I live in the country, I've been plagued with hydro noise on HF, especially on 80m. I live along a main highway and have a fairly large power line running through my back yard, roughly 70 feet from the shack and my main TX/RX antenna.

Since I own 10 acres, I put up a 160m doublet 500 feet beyond the lines, what is the field day site, with zero noise on all bands. To try to duplicate this at the shack, I ran a 450 ohm ladder line from the shack to the doublet crossing under the lines. This quieted every band except for 80 and 160m. I realized the feed line itself picks up the hydro noise where it crosses.

So this year, I decided to run and bury a coax to an 80m dipole near the same location as the 160m doublet, in hopes to dampen the static noise. As you will see in my videos, so far so good.

I purchased 600 feet of 75 ohm RG-6 from Amazon for just over \$100. Later, I changed the dipole to an 80m horizontal loop with a 4:1 balun. Now, the signal to noise ratio has improved even more.

Mission accomplished! 73 VA3XV

Part 1 <https://youtu.be/od6sTa-sV1w>

Part 2 <https://youtu.be/D1N50wLDSHU>

Tech Tips

DIY Simple Morse Key



This is a simple Morse key for the Do-It-Yourselfer. All you need is an inexpensive hinge from the hardware store and an old kitchen cupboard door knob. It works like a charm. I tried it out for a cw "rag-chew" for over a half hour and it worked flawlessly.

73 Bob VE3IXX



**Elmira Radio Club
March Meeting
March 27, 2024**



Because of an unexpected double-booked meeting for the firefighters, we were not able to use the fire hall and so the club members retired to MacDonaldis for a social meeting instead. No spirits were dampened and a good time was had by all.

Elmira Radio Club VE3ERC Meeting - Minutes Wednesday, March 27, 2024

Minutes

7:00pm Virtual Eyeball QSO – Setup, Social time & Coffee

Due to a double booking at the Firehall, the meeting was moved to McDonald's in Elmira

7:30pm

1. Meeting Call to Order, Welcome - Reg VE3RVH / Frank VA3FJM

Reg opened the unofficial meeting with greetings and a few comments after we all arrived and ordered refreshments. He mentioned that the Club would have table at the Hamfest in June at the Waterloo Region Police Assoc facilities.

2. Roll Call & Quorum – in attendance were: Graham VE3BYP, Ken VE3KCY, Rich VE3DCC, Paul VA3PDC, Reg VE3RVH, Hagen VE3QVY, Bob VE3IXX, Tony VE3DWI, Rod VA3MZD, Steve VE3BVS, Bill VA3QB, Ted VE3TRQ, Roger VE3RKS, Andy VE3CDF. Zoom attendees: Jim VE3JMU, Frank VA3FJM, Mike VE3CZ, Linda VE3FE (Rod VA3MZD set up a laptop and the Zoom attendees could listen in)

The official meeting was then put on hold and people socialized. See Below to Nomination Committee.

3. *Adopt Agenda - Rod VA3MZD • Motion to adopt Agenda of March meeting*

4. *Presentations/Speakers/Workshop*

• *Ted VE3TRQ - Alma VA3TET Wires-X Repeater Control and Rod VA3MZD Connecting WiresX HT to VA3TET via WiresX Software*

5. *Secretary's Report Rod VA3MZD • Motion to accept Minutes of February Meeting.*

6. *Treasurer's Report Ted VE3TRQ • Monthly Financial update and Motion to accept Treasurers's Report*

7. *President's Report - Reg VE3RVH •*

8. *Committee Reports • Repeater Technical Committee Bill VA3QB/Tony VE3DWI*

• **Nomination Committee for 2024 AGM - Rich VE3DCC/Bob VE3IXX - Rich reported that the following have indicated they will stand for office in 2024: President Frank VA3FJM, VP- Open Trustee - Wes VE3ML or Bill VA3QB, Treasurer - VE3TRQ, Secretary - Open**

9. *Unfinished Business*

• *Guelph Data Centre tour Dave VA3DAS, Ted VE3TRQ*

• *ARRL/RAC YOTA Summer Camp, Halifax, NS, July 7-12- Sponsorship - Rod VA3MZD/Bob VE3IXX*

• *Central Ontario Hamfest - Barry VE3SLD chair has requested that we consider putting on an event (Antenna Shoot Out?), or just having a booth for the club, or running a station.*

• *Linking the VA3TET and GARC VE3RKL Wires-X repeaters - Barry VE3SLD*

• *Lending Library- Rene RRP*

• *Book Library- Tony DWI*

10. *New Business*

• *Protocol for canceling in-person meetings and moving to Virtual only via Zoom- Rod VA3MZD*

11. **Announcements**

• **Next meeting: 4th Wednesday of the month- Wednesday, April, 24, 2024**

- Next Meeting - Speaker - Tony VE3DWI - Coax and Connectors
 - Wires-X Net - 4th Thursday of the month -Thursday, March 28, 2024 TOMORROW!
Net Controller is Judd N4WXU • Next WiresX Net - Thursday, April 25, 2024
 - Other Announcements
 -
12. Adjournment • Motion to adjourn the meeting occurred at 8:45pm
-

Many people hear voices when no one is there.

Some are called "SWLs" and are shut up in rooms where they listen to the radio all day.

Others are called "hams," and they answer those voices.

NOT Ray Bradbury

