Monthly Update

www.ve3osh.com

January 2024

Club Executive

President – **Derek VE3TKE**
Vice President: **Peter VA3PKM**
Secretary: **Neil VA3NH**
Treasurer: **Bob VE3HIX**
Membership Secretary: **Thomas VE3PDK**

Committee's

Repeater & Technical -Trustee: **Daren VE3NMD**
Website: **Laird VE3LKS**
Club Examiner**: Aldo VA3AG**
Newsletter: **Steve VA3TPS**
Net Manager: **Steve VA3TPS**
Presentation Coordinator: **John VE3KZT**
RAC Representative: **Ken VE3RMK**

Repeaters

The North Shore Amateur Radio Club Repeaters are located at Purple Woods Conservation Area in North Oshawa.

2m VHF FM Repeater – VE3OSH

Frequency: 147.120 MHz
Input Tone: 156.7 Hz
Input Offset: +600 kHz

70cm UHF Fusion/FM Repeater – VE3NAA

Frequency: 443.000 MHz
Input Tone: 136.5
Input Offset: +5 MHz

70cm UHF DMR Repeater – VE3LBN

Frequency: 443.9875 MHz
Colour Code: 3
Input Offset: +5 MHz
DMR ID: 302340

APRS iGate – VE3OSH

Frequency: 144.390 MHz

January Meeting

Our monthly meeting on Zoom will be on Wednesday January 17, 2024 at 7: 00 pm. This will also be our Annual General Meeting and there are expected to be some elections to your executive and other motions to be voted on. So come on out and drop by the zoom meeting and see what's happening and have your say and vote.

We will also have a presentation on AllStar by Laird VE3LKS who is one of our club members.

Tuesday Night Rag Chew

Were Back!!

We have had some members step up and volunteer as Net Controllers for our weekly Tuesday Night Rag Chew that starts at 7:00 PM. Our crew of net controllers is: **Aldo VA3AG, Grant VA3KJI**, **Derek VE3TKE**, **Peter VA3PKM**, **Quinton VA3NLM** and **Neil VA3NH**. Also **Nick VA3NPW** has offered to be a spare and fill in once in a while. This is not a formal net but rather a lively round-table. Some can only stick around for a few minutes while others are there from start to finish. We never know what the topic de jour will be but someone always comes up with something interesting. So, if you are available between 1900 and 2000 hrs on Tuesday's pop onto VE3OSH and join the conversation.

A big thank you to all our Net control operators for stepping up!!

If anyone would like to give Net control a try one week, let me know and we will fit you in as a guest net control.

Wednesday Night Virtual Parking Lot

Virtual Parking Lot meeting over zoom so make sure **Derek VE3TKE** has your email address. **Neil VA3NH** will be sending out the zoom invites prior to the meeting night. It has actually been quite a success as more people can show up, due to distance or schedules, and yet we can still do shown & tells by simply sharing our screens. It is not uncommon to have 20 to 25 participants but we can easily handle more. So, quit complaining about being bored and hop on the Virtual Parking Lot.

At our zoom meetings we have Amateurs from around the globe, Labrador, Sudbury and Australia. I thought being in Fenelon Falls I was DX but apparently, I am just another local ham. So come out and join us on Wednesday's!

So, try to remember Wednesday nights and drop by our Zoom VPL and say hello and see who is visiting from around the globe. It starts around 7:00 PM and last until the last die-hard leaves but you can pop in anytime and say hello and stay as long or short as you want.

White Feather Fun!

Some of the club members meet up on Saturday morning at **White Feather Country Store.** So, if you need your fix of a steamy hot beverage, as well as a hot fritter, pop up to **White Feather Country Store**, which opens at 8:30 am, and join the gang in the south east corner of the parking lot. Make sure to bring a lawn chair as we sit outside in the parking lot even when it's cold or raining. Just give a shout on the repeater between 8:00 and 8:20 to see if anyone is heading up that way and come and join us. **White Feather Country Store** is located at the corner of Simcoe St and Raglan Rd in Raglan, just south of our repeater site.

Coffee Time Alternative

Now that the colder, nastier weather is upon us, some of the members (fair weather hams) also meet up at the Coffee Time in Courtice on Saturday morning. Most arrive at 8:00 am.

What does it mean?

Recently one of our newer Hams was asking what some of the terms in Amateur Radio mean. So, we will run a short column with some Ham Radio terms and their meaning, for some of the old timers this is old hat but hopefully will help younger and newer Hams.

JT65

JT65, developed and released in late 2003, is intended for extremely weak but slowly varying signals, such as those found on troposcatter or Earth-Moon-Earth (EME, or "moonbounce") paths. It can decode signals many decibels below the noise floor in a 2500 Hz band (note that SNR in a 2500 Hz band is approximately 28 dB lower than SNR in a 4 Hz band, which is closer to the channel bandwidth of an individual JT65 tone), and can often allow amateurs to successfully exchange contact information without signals being audible to the human ear. Like the other modes, multiple-frequency shift keying is employed; unlike the other modes, messages are transmitted as atomic units after being compressed and then encoded with a process known as forward error correction (or "FEC"). The FEC adds redundancy to the data, such that all of a message may be successfully recovered even if some bits are not received by the receiver. (The particular code used for JT65 is Reed-Solomon.) Because of this FEC process, messages are either decoded correctly or not decoded at all, with very high probability. After messages are encoded, they are transmitted using MFSK with 65 tones.

WARC Bands

The **World Administrative Radio Conference (WARC) bands** are three portions of the shortwave radio spectrum used by licensed and/or certified amateur radio operators. They consist of 30 meters (10.1–10.15 MHz), 17 meters (18.068–18.168 MHz), and 12 meters (24.89–24.99 MHz). They were named after the World Administrative Radio Conference, which in 1979 created a worldwide allocation of these bands for amateur use. The bands were opened for use in the early 1980s. Due to their relatively small bandwidth of 100 kHz or less, there is a gentlemen's agreement that the WARC bands may not be used for general contesting. This agreement has been codified in official recommendations, such as the IARU Region 1 HF Manager's Handbook, which states: **"Contest activity shall not take place on the 5, 10, 18 and 24 MHz bands."**

Non-contesting radio amateurs are recommended to use the contest-free HF bands (30, 17, and 12m) during the largest international contests

Fox Hunting

Transmitter hunting (also known as **T-hunting**, **fox hunting**, **bunny hunting**, and **bunny chasing**), is an activity wherein participants use radio direction finding techniques to locate one or more radio transmitters hidden within a designated search area. This activity is most popular among amateur radio enthusiasts, and one organized sport variation is known as amateur radio direction finding.

MEMBERSHIP RENEWAL

According to Thomas VE3PDK, our membership secretary, and Bob VE3HIX, our treasurer, this is the most wonderful time of the year! We are making your membership renewal even easier this year. Step 1: go the membership section of our club page and submit the online form. Step 2: send Thomas an etransfer to treasurer@ve3osh.com or give either Bob or Thomas your fees in cash. NOTE – if you are claiming that you are a RAC member make sure you check with RAC to make sure your membership is paid up. We have to double check this for our RAC insurance policy so please do not try to claim this if you are not a current RAC. The dues are staying the same for 2024 at $30 for a RAC member and $40 for Non-RAC member

Time for Antenna Work

It seems we may be close to one of the 2 most magical times of the year. It's almost cold enough to do antenna work. Of course the springtime version is when it's almost too warm to do antenna work. These windows of golden opportunity are measured in minutes or at most hours . Perhaps climate change has something to do with it. It used to be measured in days or maybe my memory is not quite as accurate as it once was.

The trip around old sol each year can be easily divided into the following seasons:

1. Too cold to do antenna work.
2. Still too cold to do antenna work.
3. Almost warm enough to do antenna work.
4. Too many darn bugs to do antenna work.
5. Warm enough to do antenna work (finally).
6. Too warm to do antenna work.
7. Still too bloody warn to do antenna work.
8. Almost cold enough to do antenna work.
9. Cold enough to do antenna work (finally).

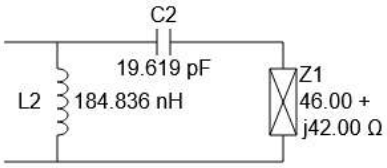
Back in 2017, Farny VE3BHQ (now SK) offered his 16 element 4 by 2 – 2M array to anyone interested. I waited impatiently for a couple of weeks before answering to say I'd love to give it new home. I felt like I'd won the jackpot when I had it strapped on the roof of my little old Subaru and drove it home. I'm sure that most will understand my XYL's reaction. But I'd thought about this on advance and told her it would have pride of place at the family property up north. She couldn't really say much because there are quite few acres of nothing but rocks and trees. That was the start of my journey. I have reported every now and again on the progress. The cost of a bazooka balun was excessive. Simple matching stubs was just too darn tough to manage and getting from a 276 ohm impedance to 50 ohm at VHF frequencies was not easy with the parts (XYL calls it junk) I had available.

I was fortunate enough to get some really interesting bits and pieces at our Hamfests and Electronic Surplus Industries, our hamfest friend Sid. If you have never visited Sid's store, I strongly encourage you to do so. Of course my meager radio fund doesn't let me get too wild.

I need to mention the support of a good friend and fellow ham in Michigan. Darryl W8IYT, was instrumental in my getting the Amidon toriods I needed for the inductors. Thanks Darryl!

I stumbled across our friend the Smith Chart and things started to turn around. The 2022 presentation on Smith Charts was the catalyst for another assault on the 276 – 50 ohm matching network.

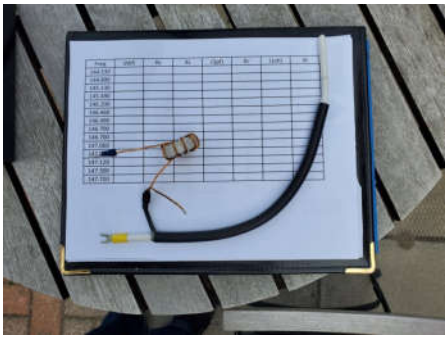
Starting from the impedance reading at the antenna terminals at 146Mhz I constructed a matching network. 19pf in series and 185microhenries in parallel. It showed enough range that I thought it would cover the band.



After battling through my assorted mica and ceramic variable capacitors, I took a chunk of LMR400 that had mysteriously been cut just that little bit too short for what I needed and fashioned a 19.?? pf capacitor.

This was an iterative process as my trusty MFJ 259B displays only 2 digits for either capacitance or inductance. I spent time trimming increasingly small chunks off of the coax and measuring until I lost my nerve.

My assembled L-C network worked out pretty well (see the chart below) and I was very pleased until I looked at the bending radius for LMR400. Who would want a case that measured square feet in size on an antenna at the top of a mast in the wind?



Testing when it wasn't raining was my only option at this point.

The SWR across the band was pretty respectable.

Frequency (MHZ)	SWR Measured
144	1.2
146	1.2
148	1.3

And of course then you have to bend the coax. Grumble, grumble, grumble.

The obvious choice was to try a smaller diameter chunk of coax.

The revised version looks similar to the LMR400 version, but it is a 'little more manageable' when it comes to getting a weather-proof enclosure.

The SWR was (is) almost as good.

Frequency (MHZ)	SWR Measured
144	1.2
146	1.2
148	1.5

The matter of the case was now first and foremost. Weather proof electrical cases are not exactly inexpensive. A 6 inch square case looked like a good bet.

I decided to write the original measurements inside the case, so I'd be reminded if things were found to be deteriorating.

Mounting the case of the antenna itself was the next challenge. The first idea was to make things looks 'pretty', eg: symmetrical

This was the "ah-ha" moment when the cursed issue of bending the coaxial capacitor came back to bite. The test results were less than stellar.

Frequency (MHZ)	SWR Measured
144	1.3
146	1.5
148	1.8

This is what the test setup looked like.

So, contemplating the fact that the antenna would be at the top of a tower and no one would be able to see the dissymmetry I decided to adjust the position of the matching network like so.

Now, in full disclosure I have to point out that the 'coax seal' that I was told is 'just as good' as coax seal is in fact crap! This is one of the things I have to fix. The test results were better although, still not as good as not having a case or enclosure.

Frequency (MHZ)	SWR Measured
144	1.2
146	1.4
148	1.8

All that remains now is to prop it up on a ladder, point it at OSH and give it a real world test. One drawback is that my only patch cables are RG8 type and the losses at VHF frequencies are high. My radio fund is almost back up to the point where I'll pop over to Radioworld and get some LMR400 or perhaps some 9913.

I mentioned having to fix the coax seal earlier on. I'm also pondering trying to further reduce the effects of the case by opening up the slots for the feed lines and using rubber grommets around the feed lines. If anyone has any suggestions let me know.

As I said at the beginning of the article, "It's almost cold enough to do antenna work."

de **Ken VE3RMK**

Swap Shop

For Sale

Yaesu FT1000MP MK V Field 100 watt HF Transciever 10m to 160m. the AC power supply is built in. Or you may also operate this transceiver from 13.8 VDC. This radio also features a built-in high speed automatic antenna tuner capable of matching loads between 16.5 and 150 ohms to better than 1.2:1 SWR. There is an access door on top panel for adjustments. This radio includes the MH-31B8 hand mic. This radio is a Yaesu Classic and has the Inrad 1800hz Roofing Filter installed and also the DVS-2 (digital recorder). Comes with manual and original box. Also comes with Yaesu SP-6 speaker. Asking **$1100 or BO.**

Contact **Steve VA3TPS** for more information on either item at va3tps@outlook.com

****

For Sale

1. Icom IC-92AD Dual Band D-Star Transceiver.
2. Icom HM-175 GPS Speaker Microphone
3. Icom BC-177 Charging dock with Icom BC-123 SA Charger
4. Icom IC _92 AD Instruction Manual
5. RT Systems Windows Cloning Software with RT Sytems USB-92 USB cable

All are in good working order. **$350**

Ken Fitzgerald, VA3KJF at webhog@me.com….905-435-6311

****

For Sale

(from Larry VA3FHG SK Estate)

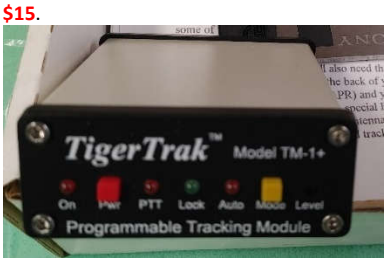
Alinco DJ-G5T/E dual band hand held. Includes manual, drop-in charger, cigarette power adapter, spare battery, mic and antenna. Was tested and working on VE3OSH. **$150**

Diamond SG-7200 dual band VHF/UHF mag mount antenna. **$50**.

Kenwood TM-D700A dual band, APRS ready. Includes mic, display separation kit and display mounting bracket. No manual but it can be downloaded for free from the Kenwood site. Tested and working on VE3OSH. NOTE – does not have a GPS so one will need to be connected if you want to use it for sending out beacons while mobile. **$350**.

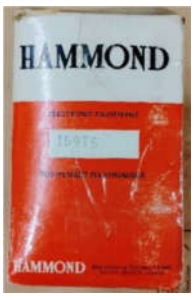
Garmin GPSMAP 60CSx gps. Includes manual, Trip and Waypoint CD, City Navigator North America CD, cigarette power adapter and USB cable for updating. Tested and working. **$150**.

TigerTrak TM-1+ Trackin Module. APRS tracker. Untested and no GPS or cables but from what I have read you would need to make/buy one based on your radio. **$15**.



Contact Laird VE3LKS at VE3LKS@yahoo.ca for info on these items

For Sale:



Hammond 169TS Transformer **–** never used. $80 new at Hammond. Asking **$25**. Proceeds go to the club. Contact **Laird VE3LKS** at VE3LKS@yahoo.ca

****

For Sale

1) Yaesu FT5D hand held, VHF/UHF/C4FM/Wires-X in new condition comes with Original box, all accessories that came with it and as extras:
CD-41 Rapid charger
MH-34 Speaker/Mic
SDD-13, 12 volts adapter to use ht in the car or charge battery in the car.
SCU-39 Kit, with the cables to run PDN mode
SCU-19 programming cable.
All for $ 550.00 Or best offer.

2) Anytone AT-D878UV Plus (GPS/Bluetooth/APRS) Hand held.
Extra Battery, Charger and bluetooth earpiece for hands free Operation.
Asking $ 350.00 or best offer.

Contact Aldo: va3ag@sympatico.ca

73 Aldo VA3AG

****

Station of the Month

Don't forget I am looking pictures of your Radio setups, home or mobile so send picture(s) and info to Steve VA3TPS at va3tps@outlook.com

Editor's Note

I am also looking for some articles or ham radio related stories, just send them along to me at va3tps@outlook.com .

Upcoming Events

Winter Field Day -January 27th and 28th ,2024

Winter Field Day is a communications exercise. WFD is held on the last full weekend in January. WFD can be worked from the comfort of your home or in a remote location. You can participate by yourself or get your friends, family, or whole club involved. Winter Field Day is open to participants worldwide. Amateur radio operators may use frequencies on the HF, VHF, or UHF bands and are free to use any mode that can faithfully transmit the required exchange intact. Similar to the ARRL's Field Day, bonus points are earned in several ways, including using non-commercial power sources, operating from remote locations, satellite contacts, and more.

From the President

Well it has come to that time. Two years has gone by in a flash. That means my term as President has ended. I have enjoyed my term. Who knew we would experience a tower failure and who knew that getting it fixed or replaced would take so long. Yes, this project is still ongoing. Several hundred emails and phone calls leaving voice mail messages. I hope to hear from Rogers before our next meeting. Haven't I said that before… Our next meeting on Wednesday January 17th, 2024 is our Annual General meeting where we will have some elections for some club executives. I hope that all members are able to attend as we need to meet meet minimum quorum requirements which are quite high as per our revised club by-laws.

There have been a number of our projects that I was able to complete during my term of office.

One of those items was to start up the Basic Course Training sessions being held on Zoom. Many thanks to Brian VE3IK for teaching the complete course last year with Aldo VA3AG being the examiner. This year we have two instructors, Brian VE3IK and Richard VE3LSZ with Aldo being the examiner. All of us were surprised when 35 students signed up for this years course. It was nice to see some couples sign-up. We were also very pleased that Nick's daughter Payton who is 10 years old also signed up. Payton has been quite interested with the hobby and has done some POTA on HF and is quite often heard making calls on our VE3OSH repeater. Nick advises that she is studying on a regular basis as this is something she really wants. Good luck to Payton. No pressure for Nick is there…

Just think if all the students pass their exam in March, we may get some new members in the club. Some are local and some are living

Well I think that wraps up this term as President. Looking forward to Wednesday's meeting and elections. Maybe I need some more things to do after Wednesday?

Derek VE3TKE – Club President