



APRIL 2021

Volume 10 Issue 4

# VE3ERC-LUB

**President:** Brian VA3DXK  
**Vice-President:** Ted VE3TRQ  
**Secretary:** Kirk VA3KXS  
**Treasurer:** Paul VA3PDC  
**Trustee:** Wes VE3ML  
**QSL Manager:** Kirk VA3KXS  
**Repeater Trustee:** Wes VE3ML  
**Website Admin:** Ted VE3TRQ  
**Lighthouse:** Al VA3TET  
**Maple Syrup Display:** Al VA3TET  
**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: 147.51**  
**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 147.510**  
**For coordination and**  
**assignments.**



## Homebrew Russian TV Antenna!

**Thanks to Mike VE3MKX for sending along this great photo. Mike says:**

A great TV antenna project ! See if the wife notices the missing cutlery !!

**73 Mike**



Radio Amateurs  
of Canada

# THE PREZ SEZ!

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



## President's Update for April 2021

Whenever there is an emergency you can always be assured that radio amateurs will be there in the forefront to respond and help. The following RAC bulletin earlier this month again proves this point.

### Clear Frequencies Requested for Caribbean Emergency Net

<https://www.rac.ca/clear-frequencies-requested-for-net-coverage-of-st-vincent-volcanic-eruption/>



For immediate release:  
April 20, 2021 –

The **Caribbean Emergency and Weather Net (CEWN)** has been providing round-the-clock coverage during the La Soufriere volcanic eruption on the island of Saint Vincent and the Grenadines.

Several neighbouring islands are also being affected by the disaster.

When responding to disasters and emergencies such as this, the CEWN utilizes 3.815 MHz LSB and 7.188 MHz LSB. CEWN is requesting that Radio Amateurs not involved in the volcano response to keep these frequencies clear.

— *Thanks to Ira Harris, VP2EIH and the ARRL News*

Alan Griffin  
RAC MarCom Director

[www.rac.ca](http://www.rac.ca)  
720 Belfast Road, #217  
Ottawa, ON K1G 0Z5  
613-244-4367, 1- 877-273-8304  
[racomms@gmail.com](mailto:racomms@gmail.com)

# Digital Radio Today

By Ted VE3TRQ

## Digital Radio Bits - The VARA Software Modem

I have written in a previous article about **Winlink**, the program used to send and receive email via radio or the Internet. This tool is able to use two types of *modems* (**MO**dulator / **DE**-**MO**dulator): hardware or software/soundcard. The hardware modems are TNCs (**T**erminal **N**ode **C**ontrollers), including the proprietary, and rather expensive, Pactor modems used extensively for radio email, and the large number of TNCs used for packet radio. Most of the packet modems work with **Winlink Packet**.

There are a number of software, or soundcard, modems available for Winlink, packet and otherwise: Direwolf, ARDOP (**A**mateur **R**adio **O**pen **P**rotocol), VARA HF, VARA FM. Direwolf is a software packet modem, the others are for data transfer, either with Winlink or associated software programs (ARIM, gARIM, vARIM, VARA Terminal, VARA Chat, etc). The original software modem for Winlink, WinMor, has been retired now, and replaced with ARDOP and VARA.

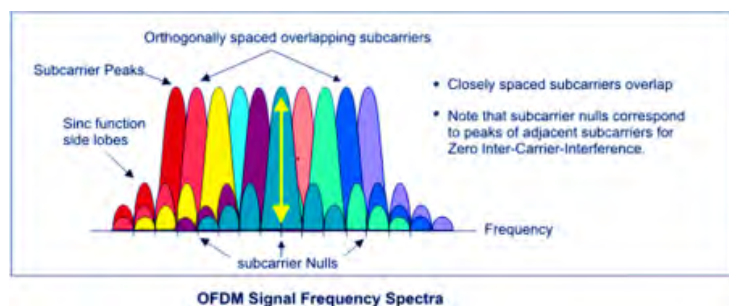
The remainder of this article will only discuss the VARA soundcard modem. It is rapidly taking over from Pactor modems and in some cases from ARDOP in Winlink. It is robust, fast, and works with Windows and Linux computers (sadly, not with MacOS computers without using a windows emulator). There are two versions (same software, different capabilities): free and paid. The only difference between the free versions and the paid (US\$69) versions of VARA is speed, and the ability of the FM version to implement *Digipeater* functionality.

### VARA HF

From the author's web site (EA5HVK - José Alberto Nieto Ros):

*VARA is a High Performance HF modem based on OFDM modulation. VARA Modem, brings state of the art Military grade technology to new and existing HF data. Designed for operation within a SSB Bandwidth of 2400 Hz.*

**OFDM** is Orthogonal Frequency Division Multiplexing - a number of separate frequency carriers (within the SSB audio passband) make up the signal. This keeps the symbol rate low, while the data rate is high.



The VARA modem will increase the type and level of modulation based on the SNR of the band - the better the propagation and signal strength, the higher the data throughput. The highest



rates are only achieved with the licensed (paid for) versions. Also, the soundcard needs to be exceptionally good for high speed - mediocre doesn't cut it (i.e. *new* SignalLink USB or DRA).

Level	Symbol Rate	Carriers	Mod.	Bytes / Packet	Net Data Rate	User Data Rate
1	37.5	52	BPSK	20	35	29
2	37.5	52	BPSK	32	54	45
3	37.5	52	BPSK	71	113	94
4	37.5	52	BPSK	150	234	194
5	37.5	52	BPSK	308	476	395
6	37.5	52	BPSK	626	963	799
7	37.5	52	4PSK	1257	1929	1601
8	37.5	52	8PSK	1887	2893	2401
9	37.5	52	16QAM	2951	4521	3752
10	37.5	52	32QAM	3690	5653	4692
11	37.5	52	32QAM	4428	6782	5629

The chart above (from EA5HVK's web site) shows what happens as the capability of the radio channel improves, and applies to VARA HF. That's a lot of *bits per second* for HF.

## VARA FM

VARA FM allows operation on both FM Simplex and through voice repeaters. It may be configured to wait for the repeater to key up, although repeater timeouts do need to be considered.

### VARA FM v4.0.0 Speed Levels

Level	VARA FM WIDE				VARA FM NARROW			
	Symbol Rate	Carriers	Mod.	Net Rate (bps)	Symbol Rate	Carriers	Mod.	Net Rate (bps)
1	42	14	4PSK	566	42	14	4PSK	549
2	42	29	4PSK	1188	42	29	4PSK	1181
3	42	58	4PSK	2390	42	58	4PSK	2390
4	42	98	4PSK	4040	42	58	4PSK	3188
5	42	98	4PSK	5387	42	58	8QAM	4252
6	42	98	8QAM	7185	42	58	16QAM	5668
7	42	98	16QAM	9580	42	58	32QAM	7087
8	42	116	16QAM	11340	42	58	64QAM	8505
9	42	116	32QAM	14144	42	58	64QAM	9567
10	42	116	64QAM	16932	42	58	128QAM	11162
11	42	116	64QAM	19003	42	58	256QAM	12750
12	42	116	128QAM	22102				
13	42	116	256QAM	25210				

In addition to working through FM voice repeaters, and with inexpensive HT radios, VARA FM will operate as a **Digipeater** for VARA FM traffic. This only works with licensed versions. VARA HF is also capable of displaying the callsigns of stations using the FM channel.

I hope that whets a few appetites, and spurs on the doubters to keep on working to get VARA and Winlink to work for our emergency communications.

## CORRESPONDENCE

### **Barry VE3ISX, the ONTARS manager wrote:**

Good morning Bob and members of the ERC  
I just wanted to thank the club for the continued support of ONTARS for 2021  
It is an honour to work with your club. Looking forward to the Lighthouse Weekend this year.

Barry and Judy

Barry VE3ISX

---

### **Rob Kuhn, a meteorologist for Environment Canada and a friend had this to say about the cancellation of the CANWARN program:**

Hi Rob:

It's sad about the changes to CANWARN. Thanks to your group for all the observations over the years, and we hope these will keep coming in via social media in the future. Many of the observations have helped me with various warnings including details of severe weather, and sometimes whether or not to issue/update/end a warning.

Cheers, Kuhny

---

### **Some antenna tuners are advertised as being able to tune up a wet noodle. Take a look at this Youtube video where an experimenter takes this to heart.**

This video features using some unique structures as an antenna. The author of the video is Carson, and he's a member of the Georgian Bay Amateur Radio Club in Owen Sound, Ontario. Just give it a watch it's lot of fun.

<https://www.youtube.com/watch?v=UmyX0JG6XGw>

---

### **Thanks to Mike VE3MKX for sending links to all kinds of interesting websites. The following is only a partial list including free e-books.**

#### **Samual Morse Special Event**

<https://qrznow.com/samuel-morse-special-event/>

#### **The last CW station**

<https://www.youtube.com/watch?v=GzN-D0yIkGQ>

#### **Books**

<https://b-ok.cc/s/victorian%20internet>

<https://callib.org/book/2760665/ac2953>

---

## **May 3 to May 7 is Emergency Preparedness Week**

## **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](mailto:bobve3ixx@gmail.com)  
(519-787-2279)**



## **WEDNESDAY NITE NET CONTROLLERS**

**MARCH 17 - BOB VE3IXX**

**MARCH 24 - MEETING**

**MARCH 31 - TED VE3TRQ**

**APRIL 7 - BILL VA3QB**

**APRIL 14 - KIRK VA3KXS**

**APRIL 21 - REG VE3RVH**

**APRIL 28 - MEETING**

**MAY 5 - FRANK VA3FJM**

**MAY 12 - TOM VE3DXQ**

**MAY 19 - TONY VE3DWI**

**MAY 26 - MEETING**

**JUNE 2 - WES VE3ML**

**JUNE 9 - BRIAN VA3DXK**





# From the PAST

**Rich VE3DCC, and Mike VE3MKX sent the following pictures from the estate of an Heathkit enthusiast and collector who became a Silent Key.**



**Terry VE3XTM wrote:**  
**This is every radio**  
**amateur's wife's worst**  
**nightmare!**

## ELMIRA

Last month while on the morning net, John, W2JLS called in from Ohio. He initially mistook Elmira as coming from Elmira, Prince Edward Island. John had visited Elmira on the island but not one of us on the net had ever heard of that Elmira. So I did a quick google.



East Point Lighthouse near Elmira

So this got me to thinking (a dangerous thing– hi hi!). How many other places will you find an Elmira? Another quick search revealed fifteen Elmira's. Here are the results. California, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Missouri, New York, Ohio, Ontario, Oregon, Prince Edward Island, South Dakota and West Virginia all have an Elmira.

So does that make Elmira famous?

'73 Ed.



**Thanks to Tony VE3DWI for sending the following which he received from a friend:**

**AURORAS OVER AN ERUPTING VOLCANO:** The last time a volcano erupted on Iceland's Reykjanes peninsula was almost 800 years ago. So consider this a 1-in-800-year shot: "On March 24th, I photographed the Geldingadalur volcano with auroras dancing overhead," reports Christopher Mathews.



Breaking 8 centuries of quiet, the volcano erupted last week on March 19th. Lava oozing through the ground was bright enough to see [from Earth orbit](#) as incandescent fountains illuminated the dark landscape.

Mathews immediately began planning his photo shoot. "The night the Geldingadalur volcano erupted, I began scouting locations for this shot," he says. "There were good auroras over the weekend, but cloud cover blocked them--a huge disappointment. Last night an unexpected snow squall appeared, blotting out the sky and even the eruption itself--another heart-breaker. But then, around midnight, the skies cleared and auroras promptly lit off over the

volcano."

We won't have to wait 800 years for the next shot. Historical accounts and ancient lava flows show that whenever Geldingadalur has experienced a significant uptick in seismic activity, intermittent eruptions follow for 100 years or so. This eruption could signal a re-awakening.

"It was a magical sight," says Mathews, "one I took especially to heart because it happened to be my birthday!" Talk about birthday candles...

--

73,  
Lloyd N2KPC TEN-TEC Amateur Radio Net Manager.

---

### **Terry Maurice VE3XTM who has been involved in restoring old radios sent the following.**

As some of you know I have taken to doing restoration work on old radios. My main interest is in the radios of the 1930s and early 40s, especially those with wooden cases. I am working part-time from home for a guy in Kitchener who has a shop there doing repairs and selling old radio parts. Here are a few photos of the latest one I did for him, a Marconi radio from 1941. It was brought into his shop by a woman who found it on a curbside. My first thought when I saw it was that she should have left it there. However, after a couple of weeks work off and on I got it finished. The radio works well after re-capping and alignment. It even pulls in shortwave stations at night with only a 6 ft wire antenna mounted inside the case. The case was the real challenge with lots of veneer missing and broken and missing parts on the support feet.

These radios sound very good when fully restored. We have become used to such poor quality sound on AM radio that it is surprising to most to hear one of these old radios that has been returned to factory standards. If they don't already have an audio input on the radio, I put a 3.5mm jack on the back of the chassis to allow a Bluetooth receiver to be plugged in and so you can stream music from any modern device. This setup sounds very good and better than most Bluetooth speakers.



# ERC Elmira Radio Club Inc. - Meeting Minutes

April 28, 2021

<u>Attendance - Members</u>	<u>Attendance - Officers</u>
Bill Reid      VA3QB	Ted Rypma VE3TRQ - Vice President
Bob Koechl    VE3IXX	Paul Curtin VA3PDC – Treasurer
Bruce McLellan    VE3QB	Wesley Snar VE3ML - Trustee
Doug Kuhn    VE3CXU	Kirk Sinclair VA3KXS – Secretary
Gary Kornstein VE3JGK	
Graham Bauman    VE3BYP	
Harold Braun    VE3CD	
Jack Sinclair    VA3WPJ	
James Litwiller    VE3JLC	
Jim Heidmiller    VE3JMU	
Judd Hodge    N4WXU/VE3WXU	
Rich Clausi    VE3DCC	
Rod Murray    VE3MZD	
Roger Sanderson    VE3RKS	
Thomas Daniel    VA3VRA	
Tom Mahony    VE3DXQ	
	<u>Guests:</u>

**Meeting Location:** Zoom

## **Meeting Minutes**

### **1. Call to Order:**

- a. Meeting was called to order by Vice-President, Ted Rypma VE3TRQ at 7:35pm and he welcomed everyone present.

### **2. Roll Call:**

- a. Roll call established those present and it was noted quorum had been attained.
- b. Marianne Lelieveld VE3MXT & Ken Buehler VE3KCY both requested proxies for their votes prior to the meeting.

### **3. Approval of Agenda:**

- a. Ted displayed the agenda on screen, which had also been circulated prior to the meeting.
- b. MOTION to approve the agenda as amended.



**Motion by:** Bill VA3QB

**Carried**

**4. Presentation**

- a. None

**5. Secretary Report:** Presented by Kirk Sinclair VA3KXS.

- a. Correspondence Received:
  - i. None.
- b. Minutes of the March 24, 2021 meeting were emailed to members on the same day.
- c. MOTION to approve the minutes of March 24, 2021.

**Motion By:** Kirk VA3KXS

**Carried**

**6. Treasurers Report:** Presented by Paul Curtin VA3PDC

- a. Paul displayed the details of the transactions for the month of March.
- b. Paul pointed out the majority of membership fees have been deposited. The RAC Affiliation/Insurance payment and our annual donation to Barry VE3ISX were expenses in the month.
- b. MOTION to accept the Treasurers Report

**Motion By:** Paul VA3PDC

**Carried**

**7. Presidents Report:** Presented by Vice-President Ted Rypma VE3TRQ.

- a. Reminder that annual membership dues of \$40 per RAC member, \$50 per non-RAC member, and \$10 for family-members of RAC members are now overdue. Payment is required by May 1 to remain on the membership roster and to run for the Board of Directors.

**8. Committee Reports:**

- a. Safety Officer - Kirk Sinclair VA3KXS
  - i. Nothing to report.
- b. Nominations Committee - Rich Clausi VE3DCC & Tom Mahony VE3DXQ
  - i. Tom presented the current slate of nominees the committee has confirmed: Ted Rypma VE3TRQ for President, Frank Monteith VA3FJM for Vice-President, Wes Snarr VE3ML for Trustee, Kirk Sinclair VA3KXS for Secretary, and Paul Curtin VA3PDC for Treasurer.
  - ii. Tom asked for additional nominees during the meeting and none stepped forward.
  - iii. Vice-President Ted Rypma VE3TRQ accepted the list of nominees.
  - iv. Secretary Kirk Sinclair VA3KXS will send the list of nominees to club members, per the requirements of our Constitution & By-Laws.
- c. Spring Field Day Committee - Bill Reid VA3QB

- i. Field Day is June 26-27, 2021.
- ii. Bill believes most members should have had at least one vaccination before this date and we should be clear to proceed. Still going to investigate the airfield at Northfield and 86 about a month before field day, but we may ask Ken if we can use his property. Intention is to rent a portable toilet and purchase food for the event.
- iii. We need to verify what Insurance coverage we have and can communicate to owners of the various sites. Roger VE3RKS confirmed via the RAC website that \$5M coverage is available through our plan. Details are here: <https://www.rac.ca/insurance/>
- iv. MOTION to sanction Field Day in June as an official Club event and set a budget of \$500.

**Motion By:** Paul Curtin VA3PDC

**Carried**

d. 24th Annual International Lighthouse/Lightship Weekend - Paul Curtin VA3PDC

- i. 0001 UTC 21 Aug to 2400 UTC 22 Aug
- ii. Paul communicated via email with the Director of Community Services for Huron/Kinloss township who provided a long list of paperwork and requirements which seemed to be geared towards events charging admission to the public, which is not our intention.
- iii. Suggestion was made to have an informal gathering at Point Clark and setup temporary antennas during the day.
- iv. MOTION to sanction a club event at Point Clark Lighthouse of one or more days on the weekend of August 21/22, 2021.

**Motion By:** Bill Reid VA3QB

**Carried**

e. Technical Committee - Bill Reid VA3QB

- i. Tony needs to take the VHF repeater offline for a week after confirming the UHF repeater is working fine. Purpose is to refurb and add 100W amplifier in the VHF repeater. Bruce proposed moving the Firehall UHF repeater to the Feed Mill and program it for VHF to replace the Feed Mill VHF repeater while the work is being done. General consensus is that having a VHF repeater online is required.
- ii. Given the lock down, we cannot access the Fire Hall until after May 20. Tony & Bill will look at taking down the Feed Mill UHF repeater to do the work it needs instead.
- iii. Ken has trimmed the tree at his property, so we can add another section to the tower supporting the Alma repeater. Sometime this summer.
- iv. Should we setup a second Groups.io channel for "Tech Talk" to remove some of the chatter from the main one? Consensus is yes and Bill will set this up.

## 9. Unfinished Business:

a. Constitution & By-Laws Update - Kirk Sinclair VA3KXS

- i. *MOTION to amend Bylaw 5. Dues, Fees, and Assessments by replacing the first sentence, which begins "Annual dues of..." with the following: "Any annual dues which are assessed in accordance with the provisions of Article V of the Constitution shall be posted on the club website."*

**Motion By:** Kirk Sinclair VA3KXS

**Carried**

**10. New Business:**

- a. Finalize proxy vote procedures for AGM and other important meetings
- i. There was discussion of whether we require a process for proxy voting.
- ii. It was noted there are processes for amending the bylaws (Article IX) and others for voting on the Executive (Article II) and another for Elections Voting at the AGM (By-Law 6).
- iii. Discussion indicated there really is not any other need for proxy votes. Quorum for business at a meeting is 1/3 of the members. Urgent financial issues can be handled by the Executive without approval of the club.

**11. Announcements**

- a. The May meeting will feature our AGM and Club Officer Elections and will be held May 26, 2021.
- b. Paul VA3PDC passed along a thank you from Barry VE3ISX of our financial donation in support of ON-TARS.
- c. If there are any volunteers for Net control, they should contact Bob VE3IXX.
- d. Ted VE3TRQ passed along news & greetings from Al MacDonald VE3TET. Any members seeking Al's current contact information should reach out to Ted.

**12. Adjournment**

- a. *MOTION to adjourn at 9:46pm*

**Motion By:** Bruce VE3QB

**Carried**

**Action Sheet:**



Action Required	Reference(s)	Action By	Deadline Date
Send email notification to members of list of nominees for Board of Directors in preparation for the AGM.	8.b.iv	Kirk Sinclair VA3KXS	Prior to next meeting
Update the ERC By-Laws & Constitution document, distribute to Exec and request it be posted to the VE3ERC.ca website	9.a.i	Kirk Sinclair VA3KXS	Prior to next meeting
Add the current fee structure to the ve3erc.ca website	9.a.i	Ted Rypma VE3TRQ	Prior to next meeting
Contact owner of airstrip at 86 & Northfield regarding usage by Club during Field Day	8.c.ii	Bill Reid VA3QB	Prior to Field Day

