



NOVEMBER 2024

Volume 13 Issue 11

# VE3ERC-LUB



- President:** Frank VA3FJM
- Vice-President:** Tom VE3DXQ
- Secretary:** Rod VA3MZD
- 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**



Ted VE3TRQ, Paul VA3PDC, and Tony VE3DWI helped to install the J-pole for Jim VE3JLC who is on the lower deck.

**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.**



# THE PREZ SEZ!

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

## President's Update for November 2024

For those of you who like contests keep in mind the RAC Winter contest coming up in December. This from the RAC website:

In December each year the Radio Amateurs of Canada (RAC) sponsors the

**Canda Winter Contest.** Amateurs all over the world are invited to participate. This year there are several updates to the rules including:

- Updated the suggested 40-metre phone frequency for Canadian SSB QSOs to avoid conflicts with FT8 or other digital frequency usage;
- Added information and a table to illustrate how scoring is calculated;
- Added clarity around how QRP entries are handled and adjudicated; and
- Added instructions on how paper logs can be converted to electronic logs using utilities established for our contests. If you need help preparing or submitting your log or have any other questions, please

contact Sam Ferris, VE5SF at [ve5sf@myrac.ca](mailto:ve5sf@myrac.ca).

For the previous year's contest results, visit the RAC website in the Contest section at: <http://wp.rac.ca/contesting-results/>

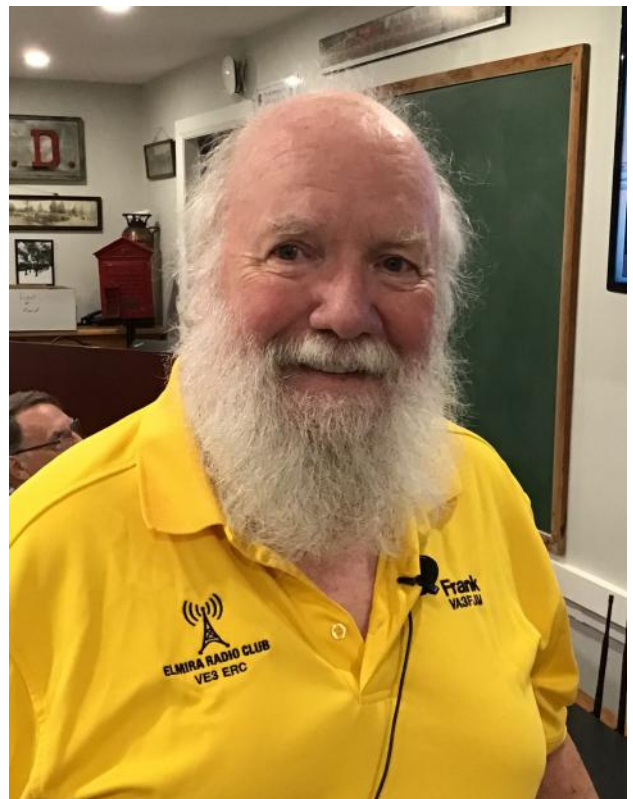
We look forward to hearing you on the air for the RAC Canada

**Winter Contest on December 28, 2024.**

All the rules are available at the RAC website:

[www.rac.ca](http://www.rac.ca)

**Sam Ferris, VE5SF –  
 RAC Canada Winter Contest Manager**





**Joyce E. Hodge VA3WXU**

**Doug Kuhn VE3CXU**

**Johan Bouwer VA3JBO**

**Al MacDonald VA3TET**

**Harry Eix VE3EIX**

**Wallace Caughell VE3LCR**

**Ralph Brubacher VE3EUC**

**Ken Moore ?**

**Syd Lennox VE3CQO**

**Bill Graham VE3ETK**

**Michael Dent VA3FTL**

**Bing Harris VE3BAH**

**Wayne Pettie VE3CWV**

**Bob Naylor VE3AEE**

**Fred Mosher VE3IXY**

**Ted Bodman VE3CD**

**Alan Ward VE3UTO**

**Wilf Baker VE3HYV**

**Ross Mills VE3BZC**





# From the PAST

This picture was an early device to detect the sound of enemy aircraft.

Thanks to Tony VE3DWI



# VA3TET will get a Facelift



Last month, this tower was featured in the ERC Newsletter.

Reg VE3RVH is moving and donated his 60 foot tower to the Elmira Club to use at their Alma repeater (VA3TET) site which will give it a big boost in height and improve the coverage.

John VE3JXX is pictured up on the tower dismantling the sections and as of publication, the pieces of the tower are at the home of Ken VE3KCY in Alma, where the repeater is located.

VA3TET operates at 147.255 MHz with a positive offset and a CTCSS tone of 131.8.

VA3TET which was named after Al MacDonald VA3TET-SK (a former ERC President), operates in FM and Wires-X modes.

Thank you to Reg for his very generous donation, to John who worked hard in dismantling the tower, to all those who helped and to Ken for allowing the club to use his property. All the club members and future users of the repeater will benefit from these efforts.

# What Did Orville and Wilbur Wright do for Ham Radio?

By John VA3KOT

In December 1903, the Wright Brothers, Orville and Wilbur made the first powered manned flight in Kitty Hawk, North Carolina. It was a tremendous achievement and has been recorded in history as the official birth of the world's aviation industry. Their aircraft made a flight of a few hundred feet at an altitude just high enough to rise above the heads of spectators at the scene. Their aircraft's speed was no more than leisurely jogging pace. Nonetheless they achieved something no-one else had done before them.

Even more interesting is that only 66 years later manned flight had developed to the point of carrying three men to the Moon. Apollo 11 reached an altitude of 239,000 miles, flew over a half million miles at speeds of over 25,000 miles per hour. That speed, which was necessary to break free from Earth's gravity, is equivalent to Mach 32. The fastest airplane in the world can only achieve Mach 3. That's a tad over jogging speed.

The Wright Brothers' airplane, known as the Wright Flyer and Apollo 11 had one big thing in common (and it is the essence of this story) – both were very noisy flying machines. The Wright Flyer was a noisy machine because it had an open cockpit so the noise of the engine and the wind were a discomfort that its pilots had to bear. Apollo 11 was a noisy flying machine because the giant Saturn rocket that lifted it into space had five huge motors that burned thousands of gallons of liquid fuel as it hoisted 6.2 million of pounds of spacecraft off the launchpad.

Bear with me because the link to ham radio is getting closer. But first an observation that the noise problem has not really gotten any better. As an employee of the formerly giant international Canadian-owned company Nortel (that has now vanished into fairy dust) I once had the privilege of flying from Toronto to Ottawa aboard the President's corporate Falcon executive jet. The seats were nice but the ride was not so good. That executive jet had a low cabin height – and was very noisy!

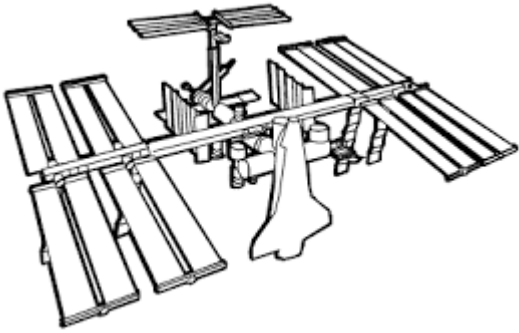


And therein lies the rub as Shakespeare was fond of saying. Airplanes can be noisy. Pilots have to stay in contact with the ground and although English is the standard language of aviation around the world, English is not always spoken in the same way. Accents, dialects and regional lexicons make our language anything but standard. A Canadian pilot flying over Australia, for example, may be confused by the way in which English is spoken there. In the noisy environment of an airplane it would be easy to incorrectly copy a controller's instruction.

Canadians to the rescue! The head office of the International Civil Aviation Organization (ICAO) is in Montreal. And it was in Montreal in the 1940s that a decision was made to adopt a standardized way of speaking the letters of the alphabet and numbers too. Whether the speaker is from the Australian outback, a Cockney working in the tower at London's Heathrow Airport, or an Indian flight controller in Delhi, each will use the same ICAO phonetic alphabet.

The ICAO phonetic alphabet has been adopted by other agencies and is used worldwide. I wish ham operators would adopt it some day. It is very precise but many hams still invent their

own. Ok, guilty here. I am Victor Alpha Tree (yes "tree" in ICAO talk) Kilo Oscar Tango but I prefer "Victor Alpha Three Keeps On Transmitting". Maybe we should all have stuck with Morse Code. There are still "accents" in Morse Code caused by the different types of key that operators use and their sending style, but at least you will never hear a CW operator saying "can you spell that for me?"



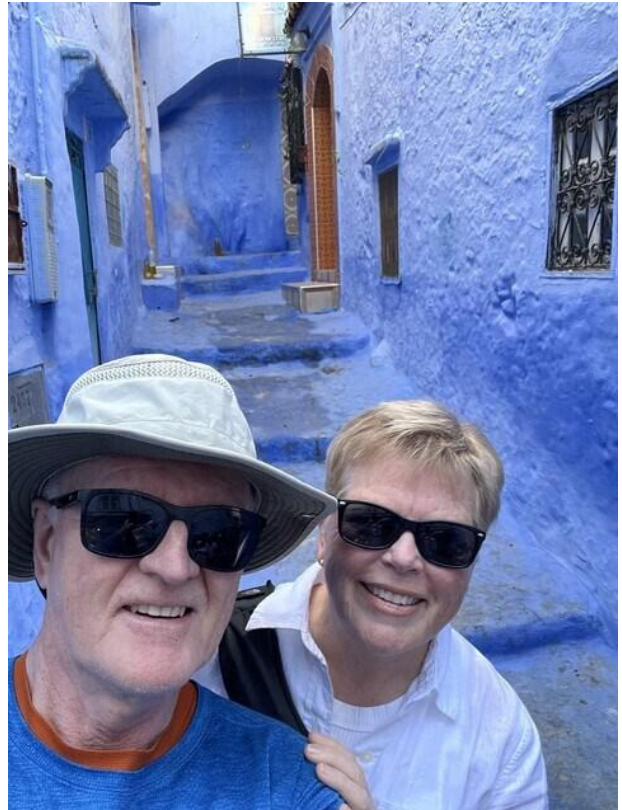
If Orville and Wilbur hadn't invented the airplane we would never have needed the ICAO phonetic alphabet. We might never have developed space travel either and we wouldn't have had AMSAT birds in the sky and the International Space Station (which always has licensed amateur radio astronauts on board). So hams have a lot to thank those guys for. Incidentally, the Wright brothers were from Dayton, Ohio – yes, that Dayton!

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## CORRESPONDANCE

It seems that even vacationing in Morocco cannot stop Rod VA3MZD from checking into the Elmira Club 2 metre net (with Echolink). Rod says:

Thanks for taking my check in today, Gary, from Chefchaouen, Morocco, the blue city!



**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**

**DECEMBER 4 - FRANK VA3FJM**

**DECEMBER 11 - TOM VE3DXQ**

**DECEMBER 18 - CURTIS VE3EFI**

**DECEMBER 25 - TED VE3TRQ**

**2025 JANUARY 1 - TONY VE3DWI**

**JANUARY 8 - BRIAN VA3DXX**

**JANUARY 15 - BOB VE3IXX**

**JANUARY 22 - MEETING**

**JANUARY 29 - HAGEN VE3QVY**

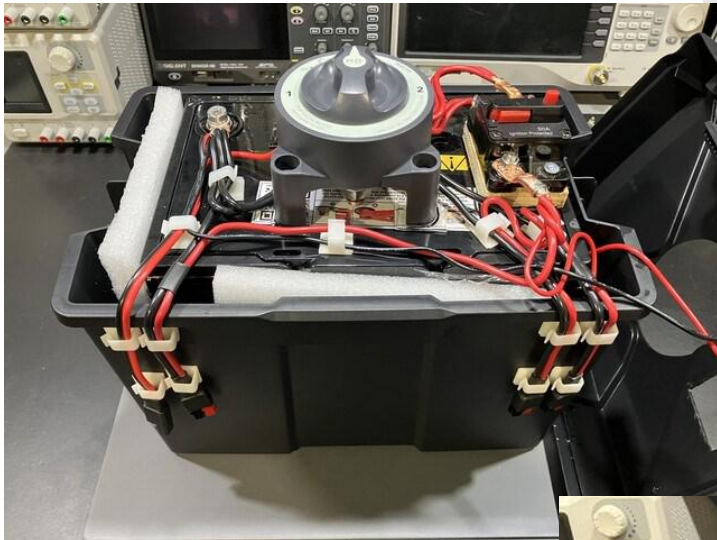
**FEBRUARY 5 - FRANK VA3FJM**

# My new base station setup -Emergency Powered

By Hagen Kaye VE3QVY

After our meeting about emergency preparedness I realized that I'm not that prepared when it comes to my HAM radio. Its running off the mains with a switching power supply, so, if the power goes out, well, no more radio for me.

I picked up a LiFePO4 100 Amp hour battery at a good price on Amazon and built my emergency powered HAM station around it.



As well I got a battery charger, battery box, A/B switch (to switch from charging to HAM radio use), a 50 amp breaker and a small volt-meter. I cut out some holes and did my best Alien tape/glue stick construction to wire everything up so it fits inside the battery box (except for the charger).

And here it is with the cover on. The charger is always attached to it. Switching the A/B switch to position 2 will charge the battery. When the A/B switch is in position 1 it powers the radios and accessories attached to it and disconnects the charger.

It has 3 Anderson Power pole connectors with 10 gauge wire so I should be able to power a few items at once.





And here it is in its final position with the IC-7100 radio. The speakers are powered by the battery as well. And to add an extra redundancy the ID-52 handheld is ready to go and is connected to a A/B antenna switch so I can use the IC-7100 or ID-52 on the Comet antenna on the roof. Since I decided to have the battery either charge or power the radio and not both, I'll be using the radio on battery power all the time, emergency or not.

Now add to that the following:

## 72 hour back up power - nerdy math

They say in case of an emergency you should be self sufficient for 72 hours. Electricity is really important. Don't need to power the entire house, but having enough electricity to supply 1800watts (one electric circuit) is plenty in an emergency. You can round robin the devices you need to power - i.e. switch between the fridge/freezers and perhaps the natural gas furnace. So I picked up a small portable generator that can do that, and 60L of gas. But is that enough gas?



Google how much energy is in a litre of gas and you'll be quite amazed. 31.5 MegaJoules of energy. Convert that to kWh with an online calculator and that is 8.76 kWh. Multiply that by 60L and you are looking at 525 kWh! That's enough power to run a baseboard heater (1500W) for 14 days!

But not so fast, this gas has to get burned by a 4 cycle 80cc engine that drives a generator that powers an inverter to get some electricity. The manufacturer has a spec that on 4L of gas this generator can supply 1800w for 3.2 hours.  $60L / 4L \times 3.2\text{hours}$  is 48 hours, so this gas will only run the generator for 48 hours - short of the 72 hours I'm looking for. Btw,  $1800\text{watts} \times 3.2\text{ hours}$  is 5.76 kWh divide by 4 and 1L of gas generates 1.44 kWh. The generator is 16% efficient at converting raw gasoline energy into useable electricity.

Fortunately this is an inverter generator and it will use less gas when not supplying the full 1800 watts. So it should run longer when supplying an average of 500 watts. I did a quick test and on 1L of gas the generator will supply 500 watts for about 2 hours, so with 60L of gas the generator will run for 120 hours. So I can stretch the amount of time the genny can run if I am not maxing out the power and just using what I figure is a normal amount of energy. Interesting thing is, the generator runs longer but 1L of gas generates 1 kWh making it even less efficient - 11%

Now if only they could invent a fuel cell that converts gasoline into electricity directly - that would be an awesome backup electric supply.



To add some perspective. This is the back deck, the genny is on that deck. A 25 ft garage (converted to a deluxe shed) block most of the noise, our house is 30 ft away from it. I can't hear it when its running full tilt when I'm just inside the sliding door on the upper deck. At 500 watts I could barely hear it in the front yard, a car driving by would drown it out. At

Idle (running less than 200w) I think it would be quiet enough that although it could be heard, the neighbors outside just on the other side of the fence could carry on a normal conversation.

I'm still thinking of making some sort of baffle to quiet it down further, so I don't attract the wrong kind of attention.

Editor: Well it seems that Hagen started a whole process. Both Tony VE3DWI and Ted VE3TRQ also proceeded down the road to emergency back-up battery power. Instead of using a solar panel, Tony attached his power supply (PSU) directly to a solar charge controller and it properly charges up his LifePo4 battery. His article follows.

# LifePo4

By Tony VE3DWI

Well, my new battery system is performing good so far. Once I connected everything in the proper order, the controller started charging the battery for a number of hours at 20 Amp. This slowly reduced the current to a 10 A level. It is not charging now and the battery Voltage is at 14.4 V.

When I turn two VHF/UHF and my Flex radio on, the power supply shows initially 6 A draw which tapers down to about 4 A. Turning off the Flex it drops to abt. 2A. Interestingly I can hear a fast clicking sound in my VHF base speaker, similar to what Hagen had, which is not on the transmitter carrier. I wonder if that is the PWM from the charger regulator. It stops when I turn my PSU off.

When my radios are off, the PSU does not supply any current to the charger. The battery now shows 14 Volt. I'm happy with its performance.



As I mounted the controller to a wooden drawer cabinet, I kept a close eye, and finger, to the controller back plate for the operating temperature. I can barely feel it being warm so no worries about that. The internal temperature on the display showed 30 degrees C.



The Alinco PSU runs the power through the charge controller to keep the battery topped up without over charging.



Ted VE3TRQ is also using a back-up battery system with an addition:

I look at my battery Bluetooth app every now and again, and see the following (shown on the right):

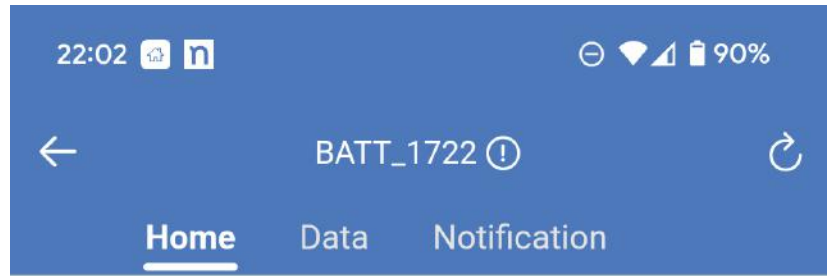
Most of the time my battery is in "Standby" mode and the PSU supplies current. Every now and again it indicates it's being charged.

It only shows the battery is actively supplying current when AC power is absent, no matter how long

When discharging for two receivers running (VHF/UHF and four slices on the Flex), the battery management system indicates over a day (27 hrs) of time is available on battery.

Of course tx will shorten that. Since that is with 0.5 KWh, just think what my 85 KWh car (my Chevy Volt) battery would supply in active up-time :-)

**Ted VE3TRQ**



System Parameter	
Total Power	0 W
Battery Status	Standby
Remaining Battery Capacity	100 AH
Remaining Working Time	--
Current Battery Temperature	Normal



# Tech Tips

For those who enjoy digital communications, Brendan VA3BVB sent the following information about an app for your Android smart phone in which you can directly attach your phone to your transceiver and enjoy digital communications. It can be particularly useful if you have no cell phone coverage. Brendan says:


Hello fellow ham radio enthusiast's I came across this interesting app and thought I would share. Enjoy.

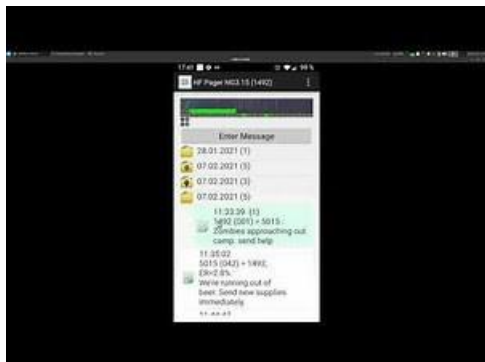
( Note: The Youtube video gives an interesting and clear explanation.)

<https://hfpager.com/en/>

<p>HFpager (Android)</p> <p>IFSK messenger</p> <p>hfpager.com</p>
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[https://www.youtube.com/watch?v=s71cBz8LU\\_Y](https://www.youtube.com/watch?v=s71cBz8LU_Y)

 <p>The HFpager interface explained</p> <p>The HFpager Interface explained - In this video we give a short tour of the user interface of the HFpager Android app. HFpager is the only Android app for weak signal HF communications and messaging for Amateur Radio operators, CB radio enthusiasts and commercial radio applications. The video is meant to be an introduction for first-time users...</p> <p><a href="https://www.youtube.com">www.youtube.com</a></p>
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# Elmira Radio Club VE3ERC Meeting

Wednesday, November 27, 2024

VENUE • Elmira Fire Hall – 44 Howard Ave, Elmira, Ontario

## Minutes

1. Meeting Call to Order, Welcome - President Frank VA3FJM

Frank called the meeting to order at 7:28pm

2. Roll Call & Quorum – Rod VA3MZD - Secretary - 21 attendees in person, none online, Quorum: Graham BVP, Ken KCY, Andy B, Rich DCC, Paul PDC, Reg RVH, Hagen QVY, Bob IXX, Tony DWI, John PT, Tom DXQ, Frank FJM, Rod MZD, Rene RRP, Steve BVS, Ted TRQ, Roger RKS, John JXX, Linda CZ, Mike FE, Curtis EFI.

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

Rod moved, Paul 2nd, Carried

4. Presentations/Speakers/Workshop

- Amateur Mesh Networks - Ted VE3TRQ  
Ted did a presentation on Mesh Networks, an ad hoc wifi data network, all nodes on the net can communicate with other nodes, excellent for EmComms. Frequencies on Amateur Bands 2.4, 3 and 5.8 Ghz. Line of sight. Can be an EmComm backbone, digital info distribution, event coms, telephone network, repeaters, etc. Equipment- Mikrotik & Ubiquiti, some TPLink. Software is specifically designed for EmComm running on Amateur band frequencies : AR-EDN

[arednmesh.org](http://arednmesh.org)



Reference- Wireless Networking in the Developing World <http://wndw.net>

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

Errors or omissions- John's call VA3PT corrected. John VA3PT 2nd, Carried.

6. Treasurer's Report Ted VE3TRQ • Monthly Financial Report as submitted - Motion to accept Treasurer's Report: Expenses for the new repeater and improvements to the Feed Mill incurred by Tony. Ted TRQ moved we pay the present and expected expenses to Tony. Frank 2nd. Carried. Ted moved the report be accepted. Hagen 2nd. Carried.

7. President's Report - Frank VA3FJM - Frank expressed his support for the Club developing MESH capability and would like to move forward with Mesh as a demo for the military in the Spring.

8. Committee Reports

- Repeater Technical Committee - Tony VE3DWI  
Paul VA3PDC, John VA3PT and Tony VE3DWI improved the structural, electrical and weather pro-

tections at the Feed Mill Repeater site. Hagen VE3DWI asked about battery backup for the repeaters. Ted VE3TRQ indicated the new VE3EFH repeater is ready to go and is awaiting a time for the Fire Chief and volunteers to install it at the Fire Hall.

- Emergency Preparedness, Local Government relations, Remote Operations - Rich VE3DCC - update report: An informal group was struck at the last meeting. Rich VE3DCC dug out and distributed the documents and posted them to the ERC website. See- <https://www.ve3erc.ca/emergency-preparedness/>

Club members should make themselves familiar with the documents. John VE3JXX updated us on the local Fire dept leadership and new town staff Emergency Coordinator. Contact with this new person should be made.

#### 9. Unfinished Business

- Linking the VA3TET and GARC VE3RKL Wires-X repeaters - contact with Barry VE3SLD - discussion postponed
- Holiday Season dinner - Mandarin Guelph- Wednesday, December 11, 2024 12:30 -RSVP to Rod VA3MZD
- Update on Bill VE3QB - Paul PDC spoke to him at length today and he is doing much better and sent greetings.

#### 10. New Business

- Application to South West repeater council to coordinate/approve our four frequencies and to add them to the repeater directory - Rich VE3DCC: Frequency coordination should be done with our 4 repeaters. Paperwork has to be submitted from the Trustee. Ted will follow up with Wes VE3ML and make application.
- Revision of Wednesday Net Controller Schedule - Hagen VE3QVY/Bob VE3IXX: Hagen suggested a revision of the roster of the Wednesday night Net controller list. Let Hagen know if you want to be removed, or added to the list of Wednesday night Net Controllers. Hagen QVY and Bob IXX will coordinate the roster.

#### 11. Announcements

- Wires-X Net tomorrow, Thursday November 28, 2024 at 8pm- Volunteer Net Controller? Ted will fill in.
- Christmas Luncheon- Wednesday, December 11, 2024 12:30 pm - Guelph Mandarin
- Other - Tony had some stuff for free/sale after the meeting
- Next meeting - Wednesday, January 22, 2025. 7:30pm Elmira Firehall

#### 12. Adjournment - Frank VA3FJM - Frank adjourned the meeting at 8:59pm

**ERC Christmas Luncheon**  
**At the Guelph Mandarin Restaurant**  
**On Wednesday,**  
**December 11**  
**12:30 pm**



## CORRESPONDANCE

### Marconi 123 - Celebrating 123 years of Radio

Hello All:

We are setting up a remote operation for Saturday December 14th, 2024.

(The actual anniversary date is December 12, 1901.)

Celebrating the 123rd anniversary of Marconi receiving the first transatlantic radio signal at Signal Hill in Newfoundland, Canada.

We will be using our club call sign, VA3XXT. Please see our

QRZ Page. <https://www.qrz.com/db/VA3XXT>

to see how we did last year.

We will announce an operator list and schedule closer to the date.

I want to encourage any youth operators in particular to participate as December is YOTA month.

It's important to note, guest operators do not need to have an amateur certificate or call sign to operate during this or any of our club remote operations as I am in the station and you are participating in communications which is as per our Canadian Regulations. This is a great opportunity for aspiring hams to get some on air experience working with experienced ham operators.

We have a special certificate to send out a Personalized PDF for any station contacting us on at least 3 bands. There will be an email link put on our QRZ page to request one. As a bonus, if we have two operators on at any time slot, a QSO with both will count as two contacts towards the certificate.

We hope to operate on 8 bands from 160M through 10M. Phone on all bands. We could also do some FT8 which will require a different log in approach. We will livestream the operation and will break up the livestream every couple of hours during the day. Follow our YouTube Channel <https://www.youtube.com/@ve3pcp> to see what frequency we are on at any time.

I look forward to welcoming anyone wishing to operate through the remote during the days schedule. If you do not currently have RemoteHams set up but wish to do so, please send me an email at [ve3pcp@gmail.com](mailto:ve3pcp@gmail.com) and we can get you set up and on the air.

We may start with some time on the air on Friday December 13th evening locally from 00:00 UTC, 7PM Local time . This will be excellent for 160M and 80M in North America.

Contacts will be logged and uploaded to eQSL and Clublog after the operation is complete.

We look forward to working with you on the air. Feel free to share this with others that you feel would be interested.

**Rob VE3PCP**  
**Inverhuron Ham Radio Club**

