



JULY 2024

Volume 13 Issue 7

VE3ERC-LUB

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- 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.**



What in the world is it?
See page 5.

THE PREZ SEZ!

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

President's Update for June 2024

ISED Gives Advance Notice of Update of Basic Amateur Radio Exam Questions

For immediate release – July 6, 2024

On July 5, 2024, Innovation Science and Economic Development Canada (ISED) posted the following announcement on its website:

“Working with the Radio Amateurs of Canada (RAC), Innovation, Science and Economic Development Canada (ISED) plans to update the Basic Amateur Exam questions and answers in early 2025. An advance copy, in PDF format, will be posted in the coming months on our [Downloads](#) page so that instructors and examiners can update their material before the transition. After this update, ISED will perform a similar review of the Advanced Amateur Exam, with new exams expected after 2025.”

As indicated in the announcement, this is the result of a RAC initiative – which was presented to ISED in 2022 – and over a year of hard work by the members of RAC’s Examination Standards Committee (ESC). The final details of the update to the Basic Amateur Exam are being worked out now. ISED must put the completed draft of the Basic Question Bank through some internal processes before it can be published.



ISED will publish the new Basic Question Bank on its website several months before it is implemented to allow instructors, authors and candidates the opportunity to adjust to the changes. The existing Basic Question Bank will be used until the new bank is implemented sometime in 2025.

RAC’s Examination Standards Committee is now working on recommendations for updates to the Advanced Question Bank.

Dave Goodwin, VE3KG



From the PAST

A construction worker stands atop the antenna of the Sears Tower, nearing completion, 1972, Chicago. He is untethered, about 1485 feet in the air



Club News



Through the efforts of Ted VE3TRQ and Paul VA3PDC, Jim VE3JLC was able to get an HF antenna set up.

Jim wrote:

Very stealthy, very well installed and works amazingly well.

Thanks guys.

JimL ve3jlc

The Hockey Playoffs And An Antenna

By Joe Koechl VE9KOE

It was the NHL playoffs. My son Aidan and I are real hockey fans and we couldn't pick up CBC Fredericton with our bunny ears on the TV even though we only live a half hour outside of the city. Funny, we could pick up St. John, channel 12 Global and channel 9 CTV which is much farther away. But CBC was the only network televising the games. CBC is on the UHF channel 31 and neither for love nor money would our bunny ears bring in the station.

So it was time to bring in the heavy guns... GOOGLE!

A quick search found a website to make a DIY antenna using nothing more than a two sheets of cardboard, a template, and some tin foil along with a short run of rg59 coax cable.

The search provided a Youtube video shown below and provided a template in PDF which only needed to be printed out. I cut out the template and laid the cut out on top of the tinfoil, traced it out and then cut the pattern out on the tin foil two times. These I glued to two separate pieces of cardboard. I found some plastic skewers and laid the cardboard out at about a 45 degree angle as shown in the photo. The braid of one end of the coax was stapled to one of the tinfoil cutouts and the centre line was stapled to the other cutout. The other end of the coax had an ordinary cable TV connector for the television.

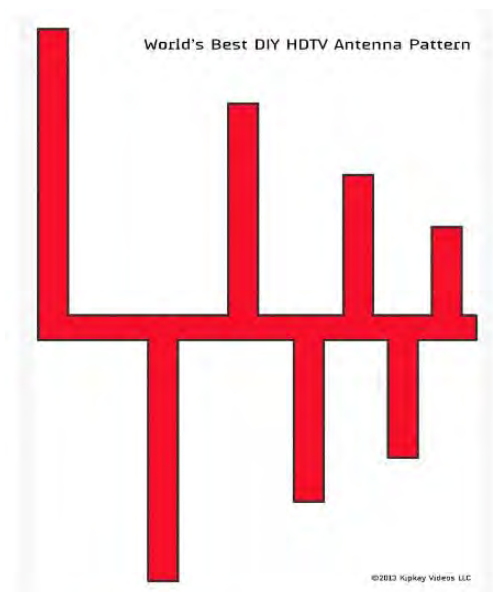
We just aimed the antenna toward Fredericton and got perfect reception. We got an antenna and the hockey games and everyone was happy!

As mentioned, the Youtube video was at:

https://youtube.com/watch?v=X_OhW02DmUs&si=kDXAW6FDn3Qo60il



To the right is a miniaturized picture of the PDF file which can be downloaded and printed as the template for the tinfoil cut out.



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

JULY 3 - HAGEN VE3QVY

JULY 10 - FRANK VA3FJM

JULY 17 - TOM VE3DXQ

JULY 24 - TED VE3TRQ

JULY 31 - TONY VE3DWI

AUGUST 7 - BRIAN VE3DXK

AUGUST 14 - BILL VA3QB

AUGUST 21 - BOB VE3IXX

AUGUST 28 - REG VE3RVH

SEPTEMBER 4 - HAGEN VE3QVY

CORRESPONDENCE

Rob VE3PCP sent the following:

Hello all:

Please mark your calendars for August 4th until August 10th.

[Operating as OL88YL](#).

Our good friend Eva Thiemann-Pospíšková [HB9FPM](#) is hosting an exciting all YL operation at contest station OK5Z in the Czech Republic.

With over 20 YLs and a great station, we look forward to getting them in our log on several bands and modes.

Please check their [QRZ page](#) for more information and to see who the YLs are that will be on the air.

You will also see that Merzuke Gediktaş

[TA7YLY](#) is part of the operating team!

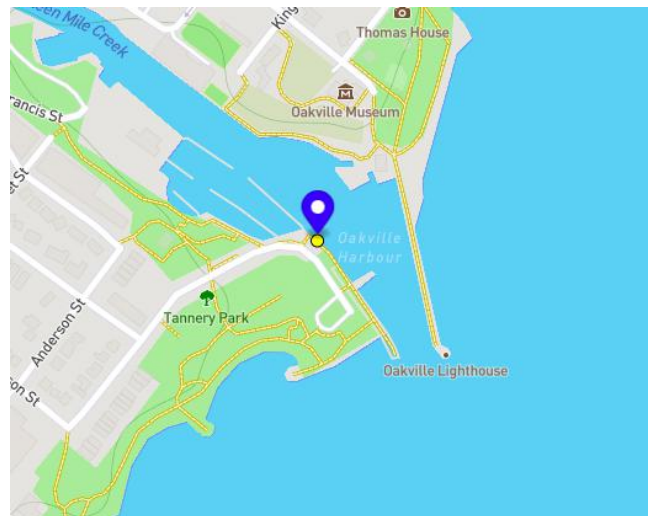
We wish them all the best of success and for the best band conditions!

73, Rob, VE3PCP



Thanks to Mike VE3MKX for sending the following from **Scott Ralph VA3EKR**:

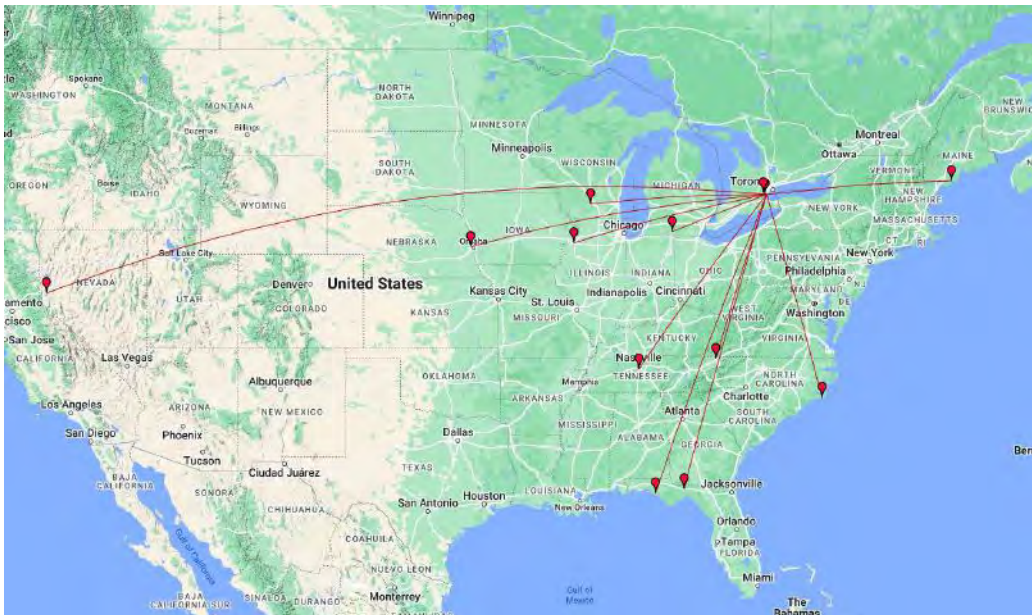
July 1, 2024, Canada Day activation of Oakville Harbour Historic Site (CA-6319) and Great Lakes Waterfront Trail (CA-6003)



It was a gloriously sunny day, and beautiful time to activate at Oakville Harbour. I used the Alex Loop, magnetic loop antenna, as it was very easy to deploy right next to the pathway and use a park bench there.



Here's a panorama of the harbour.



Here's a map of the QSOs. It was pretty quiet for an hour-long activation, but perhaps this was because RAC (Radio Amateurs of Canada) had a contest, or people in the U.S.A. were working? Not sure

Mike VE3MKX forwarded the following:

Hi from Kamloops...

I did a 1E Field Day this year.....QRP using my Elecraft K2-10 and a SLA battery that lasted for all 215 contacts hi hi. I had a couple of days of sunny wx to put a decent charge on the battery using a 10 watt Coleman solar panel that I bought from Can Tire a few years ago. I use Anderson Powerpole connections (direct replacements through Amazon actually). I have a connector on the solar panel cable; a 1 amp diode in series as an extra measure. This year I stayed up most of the night, with a few scheduled sleep breaks, to work 40M. The band was in great shape.....quiet with good propagation. Some stations on the Eastern seaboard heard me hi hi. Generally, Illinois is kind of the eastern limit for my QRP signal being heard on 40M from here. I don't have an 80M antenna up right now since I don't do the CW traffic net anymore.

I just had three hundred bonus points but that was OK by me. I was pretty much done-in by 8 AM our time on Sunday morning so I shut down my station then. Propagation to my QTH wasn't as good for 20M.

**Cheers,
John VE7N**



Mike VE3MKX also sent the following:

Fwd: W2AEW_video_index

It is 18 pages of YouTube videos on all things amateur radio:

https://www.qsl.net/w2aew/youtube/W2AEW_video_index.pdf

Some good info !! this will keep ya busy for a few hours or days !

73 Mike VE3MKX

**For those who might want to try their hand at a CW contest
You might want to try out this contest!**

[CWOperations] Flight Of The Bumblebees CW Contest: Sunday: July 28

The annual Flight of the Bumblebees will be held on Sunday, July 28, 2024. The event will be in a four hour daytime window, from 1700 to 2100 UTC. This casual QRP CW event consists of 'Bumblebees' who are operating portable stations at outdoor locations, and 'Home Stations' who try to work as many of these 'Bumblebees' as possible.

This event is open to all operators. Anywhere. Being at the top of the sunspot cycle, this year's event has the potential to be very interesting. Operators who want to go out and setup a portable station at some outdoor location, and be a highly sought after 'Bumblebee', need to obtain a "Bumblebee Number".

The window for obtaining your 2024 'Bumblebee Number' is now Open.

The <https://ars-qrp.com> web site will explain the whole process.

Bumblebee Number requests are still coming in. As of today, July 14, there are 120 Bumblebees signed up to go out and operate portable in some fresh air location. The Bumblebees will be everywhere from Maine to California and Florida to Washington. Not in every state, but pretty darn close. We will also have Bumblebees in Canada, and at least one in a DX location. They will be operating from mountain tops, parks, beaches, local fields, back yards, etc.

Let me address this to the Home Stations:

Your challenge is to work as many of these Bumblebees as possible using 5W CW. On as many bands as possible. You have the advantage of having better permanent antennas, but you may encounter pileups since Home Stations will outnumber Bumblebees.. You can work the same Bumblebee once on each band - each band will count as another Contact and another Bumblebee worked. While you can also work other Home Stations from your Home Station, the scoring is weighted toward working Bumblebees.

Let me give you an example:

- Working 1 Bumblebee and 9 other Home Stations results in a Total Score of 30

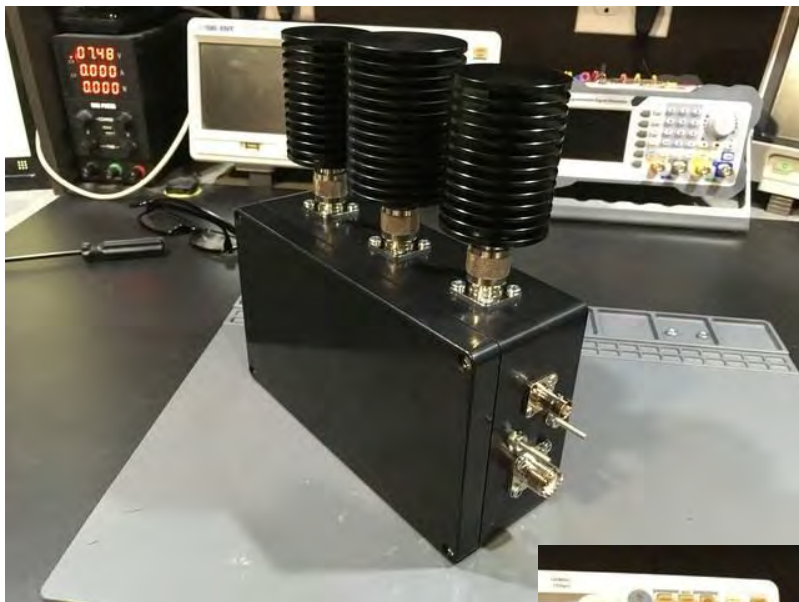
- Working 10 Bumblebees results in a Total Score of 300

Not everyone will be in it for the Score, but it is always nice to have bragging rights.

Of course propagation will not support it, but with 120 Bumblebees, and 5 bands available (10-15-20-40-80), a Home Station theoretically has 600 Bumblebees out there to find and work. Chasing Bumblebees will easily fill up the whole 4 hours of this event.

Good Luck. And have fun.

Tech Tips



Yes, you can't buy one, so you have to make it yourself. 4 x 50 ohm dummy loads in series.

Built it to measure different methods of impedance matching with a transceiver and antenna.

Works well, however, I did have an oops (accidentally put way too many watts into this) on the first measurement and I believe I might have caused some damage on CH1 on my oscilloscope when I had it connected to measure P-P voltage. CH2 still works!

My mistake I made was having my oscilloscope probe set to 1:1 and having the transceiver output 20W. (I meant to have the probe at 10:1 and output at 10W). Even at my accidental setting the P-P would have been 178V - still less than the 400V rating on the scope. However, I believe the 400V max is for 60Hz or low frequencies, not RF frequencies (I was doing 14MHz at the time).

And I might have an excuse to upgrade my scope now.

Hagen VE3QVY

Why a Battery Weighs More When It's Charged

John VA3KOT [Short & Tall Stories](#) December 22, 2021 3 Minutes

It's the middle of December as I write this. My backpack radio kit hasn't had a good workout since I last took it out in the field for a Parks On The Air (POTA) session a couple of months ago. But, we got lucky with the weather one day this past week. The temperature got up to 14 degrees Celsius before strong winds brought in a Colorado low and took the mercury back down to the freezing zone.

I got a chance to set up as a "Backyard On The Air" station to test a new portable antenna I had built for next summer's outdoor operating season. My Bioenno LiFePO4 battery was freshly charged for the occasion and I was eager to get out on the deck and fire up the rig to see how well the new antenna would perform.

The Common Cold virus had invaded my bloodstream and I was feeling a little weak as I picked up the backpack containing my Yaesu FT-891 radio, a homebrew L-match tuner, the Bioenno battery and various cables and accessories that I like to carry with me on a field trip. "Strange" I thought, "this backpack feels a little heavier than usual".

Maybe it was just the debilitating effects of my mild illness that was affecting me, but I wasn't sure. Then suddenly I had one of those "light bulb moments". "Of course" I thought, as my university Physics training began kicking my brain into high gear, "I just charged the battery, so that is obviously the reason the backpack feels heavier than usual".

Now most people have probably heard of Albert Einstein's famous energy/mass equivalence equation, $E=mc^2$. It may not have much relevance to most people's everyday lives. Not so for me. From my teenage years I was on a path toward a lifetime of science awareness. I vividly recall my high school physics teacher's erudite response to a student who complained that his pen had disappeared. "Don't be silly boy; if your pen had disappeared the whole city would be lying in ruins".

Do the math yourself. Take the mass of an average pen and multiply it by the square of the speed of light. That's one heck of a lot of Joules to unleash on an unsuspecting city. Old Albert had hit the nail squarely on the head with his $E=mc^2$ equation.

Einstein's genius was further driven home to me when I started my freshman year in college. A bunch of long-haired 1970s yahoos had to be indoctrinated into the wonderful world of Physics. And the faculty staff had a cunning trick to do just that. Teach those long-haired kids how to make an atomic bomb! In fact, teach them all of the different ways to build an atomic bomb. Just keep those long-haired weirdos away from any source of Uranium or Plutonium.

We did have a radio-isotopes laboratory in which we could indulge our fantasies of playing god with the World. Special clothing had to be worn when we entered the lab. When we left the lab we had to undergo a full-body scan with a Geiger counter to ensure we were not sneaking any dangerous isotopes out with which to create criminal mischief. The local police were familiar with our penchant for mischief so every caution was very well advised.

And so it dawned on me; at last I understood why my backpack radio kit seemed heavier than usual – I had just charged the battery! I know; you are getting a bit skeptical around about now. "This idiot must be enjoying a little bit too much of the old 'Scottish Champagne'" you may be thinking. You may be right, but trust an old Physics grad; the mathematical proof is in old Albert Einstein's equation.



My Bioenno battery is rated at 12Ah and although it puts out over 13 volts most of the time, let's call it a 12V battery. Whatever number we calculate for the increased weight can then quite honestly be claimed to be a conservative number.

So here we go;

A 12V battery with a storage capacity of 12Ah holds 144Wh of energy.

1 Watt = 1 Joule per second

So 144Wh = 144 x 3600J = 5.18400 x 10⁵ Joules

Using Einstein's mass/energy equivalence equation, E=mc²

E/c² = 5.184 x 10⁵/(3 x 10⁸)²

= 5.184 x 10⁵/9 x 10¹⁶

= 5.76 x 10⁻¹² Kg

= 5.76 x 10⁻⁹ g

= 5.76 nanograms

Alright, a handful of nanograms isn't a whole lot, but when you're out hiking to a radio spot at the top of a steep hill on a hot humid day, where do you draw the line?

Quod Erat Demonstrandum!

From John's Blog: Ham Radio Outside the Box

SOME FAMILIAR FACES AT THE MILTON HAMFEST



**THANKS
TO
KEVIN
VA3RCA**



International Lighthouse Lightship Weekend - ILLW

Normally held on the 3rd full weekend in August
This year: 00.01 UTC 17th August to 24.00 UTC 18th August 2024 (48 hours)

For some reason or other August seems to have become the international weekend for lighthouses. Countries all over the world have become involved in one for or another of lighthouse activity. Some years ago the United States Congress declared August 7th as their National Lighthouse Day and during that first week in August amateur radio operators in America set up portable stations at lighthouses and endeavour to make contact with each other. This event is known as the US National Lighthouse Week.

In Britain the Association of Lighthouse Keepers, [ALK](#), conducts International Lighthouse Heritage Weekend on the same weekend as the ILLW in August. Their objective is to encourage Lighthouse managers, keepers and owners to open their lighthouse or lightstation and related visitors centres to the public with a view to raising the profile of lighthouses, lightvessels and other navigational aids, and preserving our maritime heritage.

However, the major event which takes place in August is the International Lighthouse Lightship Weekend, [ILLW](#), which came into being in 1998 as the Scottish Northern Lights Award run by the Ayr Amateur Radio Group. The history of this event can be found elsewhere on this site. The ILLW usually takes place on the 3rd full weekend in August 500 lighthouse entries located in over 40 countries. It is one of the most popular international amateur radio events in existence probably because there are very few rules and it is not the usual contest type event. It is also free and there are no prizes for contacting large numbers of other stations. There is little doubt that the month of August has become "Lighthouse Month" due largely to the popularity and growth of the ILLW.

Hope to see you at the
Point Clark Lighthouse CA0011
August 17-18

