



APRIL 2018

Volume 7 Issue 4

VE3ERC-LUB

President: Brian VA3DXK

Vice-President:

Secretary: Tom VE3DXQ

Treasurer: Paul VA3PDC

Trustee: John VE3JXX

QSL Manager: Paul VA3PDC

Repeater Manager & Maintenance:
Carl VE3FEF

Website Admin: Ted VE3TRQ

Lighthouse: Al VA3TET

Maple Syrup Display: Al VA3TET

Newsletter: Bob VE3IXX

ERC REPEATERS

UHF 444.700 TONE: 131.8

UHF 444.700 TONE: 123.0

VHF 147.390 + TONE: 123.0

EMERGENCY SIMPLEX: 147.51

UHF- IRLP node 2404

VHF- IRLP node 2403, ECHOLINK node
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.**



The Elmira Radio Club G5RV antenna at the Maple Syrup Festival in Elmira. Photo is courtesy of Barry VE3ISX



Radio Amateurs
of Canada

THE PREZ SEZ!

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

President's Update for APRIL 2018

Spring is here, I think! The Vernal equinox in Northern Hemisphere was at 12:15 p.m. on March 20th and with our recent April snow and ice-storms it has arrived in a rather lack-luster way. Oh well, we are Canadians as well as amateur radio operators and realise that just like HF-



propagation, all good things come in due time.

April to September, is the club's busiest of times with many upcoming activities ranging from Maple Syrup Festival and Ontario QSO Party in April, through CAER Open House, Dayton Hamvention, Museum Ships Weekend, Field Day, and Central Ontario Hamfest in May and June, RAC Canada Day Contest and Islands on the Air in July, on to Lighthouse in August, and the ARRL VHF contest in September.

That in itself is a pretty full slate, not to mention our weekly on-air nets and individual summer get-aways that many of us go on with radio in hand or car or trailer! If interested check the various on-line contest calendars. There is the SP DX RTTY Contest, Swiss Helvetia HF Contest, Florida QSO Party, to name just a few events happening just this weekend alone!

The Executive of the club is responsible for keeping and maintaining a **Club Equipment & Resources Inventory** of all its assets and possessions including radios, antennas, other equipment, books & manuals, resources, material, etc. We need a **complete inventory** by our **AGM** next month. If you have any items that belong to the club, you are kindly asked to email the President or the Secretary with an itemized list of all Club equipment & resources/material in your possession.

Our **Annual General Meeting** and **elections** for **Club Executive** will take place next month during our **AGM on Wednesday, May 23rd, 2018**. According to the ERC constitution, the term for service of the executive is one year but the intent is to change this to a two-year term in the very near future. In order to hold an office an individual must be a member in good standing for at least one year, live in our repeater coverage area, and hold a valid Amateur Radio license.

We have a simple mechanism for conducting elections. Six months prior to elections the President appoints a nomination committee charged with finding qualified candidates to run for office. The committee presents a paper ballot to the president at the regular meeting one month prior to elections at which time the President will entertain a motion for nominations and to accept the ballot. The final ballot will be published and made available to all club members by email and elections are held during the AGM. Immediately after voting the ballots will be



counted openly in front of the membership by the nomination committee or secretary. Any candidate may request a recount of the ballots. In the case of an unopposed slate the President may entertain a motion that the candidates on the unopposed slate be accepted by acclamation or the President may entertain a motion for the Secretary to cast a single ballot. The nomination committee is then dissolved after the annual election. The newly elected board of directors will be presented and begin their terms at the September general meeting. The hope is to have the executive in a rolling renewal state in which only part of the executive changes over at any given time. This ensures smooth transitions and stability to the club. During the summer months the President hosts an Executive BBQ meeting during which the standing, outgoing and incoming executives meet to review the year, plan ahead, and effect a smooth transition of office. All this to help serve you the membership better. So please plan to attend our AGM meeting next month and vote!

As of this month we have an updated membership of 36 licenced amateur radio operators, each of whom brings a very diverse collection of talents, skills and personality to our club. Our membership participates in the many fun and exciting activities of this active and evolving amateur radio club and we are always on the lookout for new and exciting ways to participate, and share time and expertise – we truly are 'Radio Active'!

WEDNESDAY NITE NET CONTROLLERS

APRIL 11 - TOM VE3DXQ

APRIL 18 - PAUL VE3PVB

APRIL 25 - M E E T I N G

MAY 2 - TRACY VA3TGY

MAY 9 - BRIAN VA3DXK

MAY 16 - BOB VE3IXX

MAY 23 - M E E T I N G

MAY 30 - TED VE3TRQ

JUNE 6 - AL VA3TET

JUNE 13 - REG VE3RVH

Edmonton fire crews save senior hanging upside-down from radio tower

Edmonton Sun, July 16, 2013

Firefighters saved an elderly man who was stuck hanging upside-down from a ham radio tower in west Edmonton Tuesday evening. District Chief Lorne Corbett said crews were called to a residence near 106 Avenue and 149 Street shortly after 5 p.m. for reports that a man was stuck in a cell tower.

"It was a ham radio operator at a private house and he was approximately 30 to 35 feet up. He was trapped and couldn't get back down," explained Corbett.

Corbett said the man was a certified tower expert who was dismantling a ham radio tower for a friend. He was wearing a proper safety harness that saved his life, Corbett said.

"He was very, very experienced," he said. "It just happened that he slipped backwards and wasn't able to self-rescue."

Two firefighters went up a ladder and stabilized the man, said Corbett, before the technical rescue unit assembled some rigging to put him upright and get him into the bucket of the ladder.

Corbett said the man sustained a bloody bump to the head but was able to come down the ladder on his own. He was treated by EMS at the scene.

Age has a way of sneaking up on us all and although our minds tend to deceive us into thinking like we are in our twenties, our bodies ever so quickly provide us with a reality check – sometimes with unforeseen and consequential results!

Work safely, work smart, and work with a buddy whenever possible!



Thanks to Brian VA3DKX for submitting the above article.

Community Awareness and Emergency Response (CAER) & Community Alert Network (CAN)

The **Township of Woolwich** is committed to providing emergency services to everyone in the community through the **Community Awareness and Emergency Response (CAER) Group** and **Community Alert Network (CAN)**.

The CAN system automatically phones all homes and businesses in the affected area with a specific warning and instructions. The CAN system may be used for:

Severe weather events such as tornadoes, chemical releases, explosions, major fires, etc. For the system to work effectively, the contact database needs to be current with your correct phone number.

Are you on the CAN list? To find out if your phone number is on the list or to update your information, complete the

[community awareness and emergency response contact update form](#), or call

519-669-6006 or toll-free 1-877-969-0094 ext. 6006.

THE ERC PRESENCE AT THE ELMIRA MAPLE SYRUP FESTIVAL

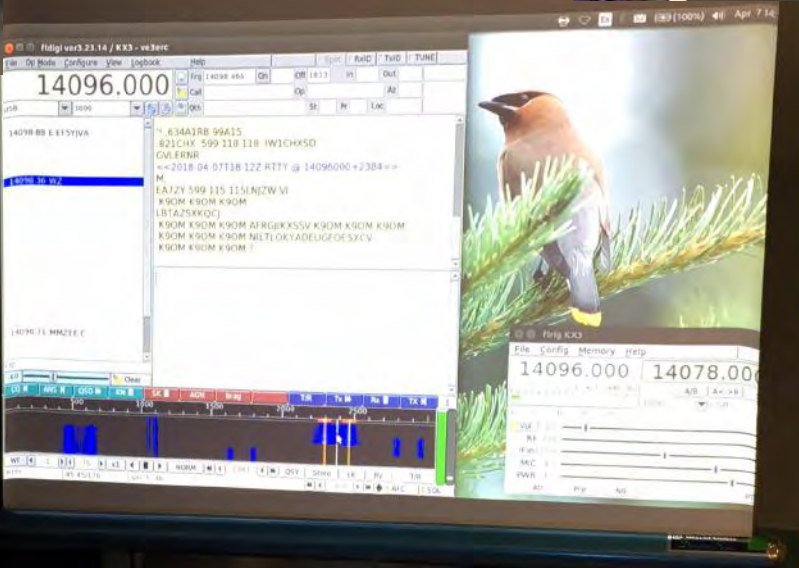
2018



Barry VE3ISX, ONTARS Manager, dropped in to visit us.



Photos by
Tony VE3DWI
and by Barry VE3ISX



Back-of-the-Napkin Eyeball

QSO notes and stuff

by Rich, ve3DCC

Here are four seemingly unrelated threads: Facebook, Robots, G5 and Voting.

Actually, these items are more than vaguely related.

We have learned recently that MILLIONS of Facebook Users had their personal data, preferences and interests data-mined by a data analytics firm. The apparent intent was to use this information to send targeted information to individuals during elections—information that reflected one's personal preferences and mind-set. For example, gun enthusiasts could receive email that pandered to their hobby whilst anti-gun supporters would receive advertising, from the same political party, that played to their beliefs. In this opinion-forming exercise, posts on social media, direct emails, tweets and blogs attempted to create a "wave" of popular thought so trusting voters might side with the "informed majority". We now know that this strategy was employed during the Brexit vote in the United Kingdom, as well as in other electoral events world-wide. This should not be a surprise—media, for example, consciously or unconsciously, influence the eventual vote via the publication of "polls" during an election campaign. It is interesting to note that as the polls attempted to convince Americans that Hillary Clinton was going to win a massive majority, the unexpected happened. This was also true of recent elections in British Columbia, Alberta and Quebec. People do have a mind of their own it seems, and the persuasion may backfire as threatened voters go out to vote, and apparent winners stay home. I wonder if ALL polls should be banned during an election campaign. It would also appear that democracy and free choice are under attack by opinions expressed by those who have no legitimacy or credibility—yet, their words are taken as fact because "they are on the internet". Is this a massive abuse of the communications and technology? Is this why Hams do not talk politics, religion or business on the air-waves?

In a related development, there is currently an aggressive investigation in process that is attempting to define the extent of foreign interference in American politics, most notably, the recent U S election. While this is a bit different from the media sculpting public opinion and outcomes, it does involve the hacking and release of email. Please note that it does not cross the boundary into outright tampering with the vote. There is a danger, though, in Ontario communities that have elected to allow voting by internet or telephone. Specifically, there is absolutely no guarantee that the vote cast via computer or telephone was not "supervised" by a family or community leader. This seems to suggest that a paper ballot system with ballots cast secretly at a polling location remains the most reliable. This process, however, is slow and prone to human error. A good compromise will be attempted this June in Ontario where 90% of voters will cast their ballot at polling locations via a tabulation machine. This has merit as it also provides for a tamper-proof paper ballot, scan sheet backup. However, the temptation to move one more step to total internet voting is enticing. In a news release on April 16, 2018, Rogers Communications announced plans to test a new 5G network. In the release the company said:

"The first generation of wireless networks brought consumers analogue voice calls, then SMS with 2G, web browsing with 3G, and high-speed data and video streaming with 4G. 5G will open up a whole new world, a world that moves beyond connecting people to connecting machines and mass connectivity through the Internet of Things (IoT). Not just about speed, fifth generation wireless technology will deliver always-on reliability and real-time connectivity. With ultra-low latency, the lag between sending a request and the network responding will theoretic-

cally drop to one millisecond, 400 times faster than the blink of an eye. This allows for a massive increase in the number of connected devices and a range of applications that require quick responsiveness, like driverless cars, virtual reality and low-power IoT innovations for smart cities."

If this allows really fast, real-time data transfer, can we see a tempting extrapolation.

And, Well now, what else can happen?

In yet another item from the EUROnews:

Leading experts in robotics and artificial intelligence have warned the European Commission that plans to grant robots legal status are "nonsensical and non-pragmatic" — and that doing so could breach human rights.

In an open letter, more than 150 experts in robotics, artificial intelligence, law, medical science and ethics, warned the Commission against approving a proposal that envisions a special legal status of "electronic persons" for the most sophisticated, autonomous robots.

"Creating a legal status of electronic 'person' would be ideological and nonsensical and non-pragmatic," the letter says.

The group said the proposal, which was approved in a resolution by the European Parliament last year, is based on a perception of robots "distorted by science fiction and a few recent sensational press announcements."

"From an ethical and legal perspective, creating a legal personality for a robot is inappropriate", they argued, explaining that doing so could breach human rights law.

The experts said Europe should create rules for robotics and artificial intelligence that foster innovation, but also consider the "societal, psychological and ethical impacts."

Let me draw these threads together:

Hams are sensitive to the need to be discreet on airwaves. After all, in our hobby, the whole world could be listening. With new age communications such as Twitter, Blogs, Facebook etc., "they" ARE. The "they" includes artificially intelligent programs, "electronic people", that can analyze and categorize you with impunity.

The merging of high-speed communications with missing transparency and accountability creates a recipe for disaster. Perhaps, Ham Radio innovators need to address the issues of security and accountability before regulations do.

Is it time to mix in some old-fashioned common sense—that is, if it is free, you are Not the consumer, You are the product being marketed? Assume that the whole world is watching and conduct yourself accordingly.

In a nutshell, we are not in "Ham Radio" Kansas anymore! It is a whole new communications world and Hams might play a role in making it workable and secure.

De ve3DCC, Rich.

VISIT THE ERC WEBSITE AT

www.ve3erc.ca

FEEDBACK

There has been lots of feedback of support, of articles to include, websites of interest, regular by-lines and comics from our immediate membership, but also from a wider range of readers. A big thank-you to all who have made the effort and also to those who have passed on the newsletter to others outside of the mailing list.

Aside from our own membership, a special thank you to Mike VE3MKX. Mike hails from the Barrie area and has been instrumental in getting permission from Al Duncan, VE3RRD to reprint his articles (see page 11). Al is part of an experimenters and project oriented group with the Barrie Amateur Radio Club. Mike has also been passing on the newsletter as you can see in this next e-mail.

Mike ve3mkx passed on this e-mail:

Mike

Tnx for passing this newsletter on.

Is exciting to see the Elmira Club is so vibrant and progressive, as portrayed in this newsletter (which is nice to see)

Their effort to create the Educational seminars, in Sept, should create much interest and enthusiasm in the hobby. As an old timer(!) it is refreshing to see.

73. Norm. VE3CZI

Richard VE3NUL, who has made an effort to come out to the ERC field day from North York for the last few years sent us a very interesting website (see page 13).

Also a thank you to Dan Romanchik, KB6NU (who came all the way up to the ERC Light House weekend) for regularly sending his blogs. See page 17.

Paul VE3PVB sent the following e-mail with regard to a story (too lengthy to reprint) about quantum communications :

A true story or just the makings of a very good movie?

**I believe it is true
see what you all think
best wishes
Paul VE3PVB**

The story is titled, "A Curiosity of Spirit" and is found in the blog under the heading of "Stories" at the following website:

<https://astroengineer.wordpress.com/>

Ted VE3TRQ (see page 15 for article) sent the following e-mail:

Hi Bob

Thought you might like this SANS article on phishing

**Have attached a PDF file containing anti-phishing ideas. Might be useful sometime.
Ted VE3TRQ**

<https://www.sans.org/sites/default/files/2018-04/201804-OUCH-April-English.pdf>

Once again, thanks to all and apologies if anyone has been missed.

Bob VE3IXX (Ed.)

ICE STORM 2018

By Bob Koechl VE3IXX

Once again winter has been hanging on with a vengeance. The recent ice storm has demonstrated that winter refuses to give up it's



The mobile antenna on the car took a hit as well.

grip on all of Southern Ontario. This year Providence smiled on our local region with regard to power outages, although not all

areas were so fortunate. Our power only went out for a mere two hours in the middle of the night on April 14 and 15 and then it promptly came back on in spite of the fiercely heavy winds and the freezing rain.

However, the damage to my antennas was not so kind. Both my hf wire antennas, a G5RV and my "inverted V" dipole took a nose dive. While the "inverted V" is a new antenna, the G5RV is a veteran of previous ice storms over the past ten



The G5RV playing in the snow.

years and more than once withstood the onslaught. Our family vehicle was also a victim and required help from the motor league and needed a repair of the windshield wipers.

But then again... we live in Canada!



The heavily ice-laden trees leaned way over to the hydro lines but bounced back afterwards.



Yet the 2M quad beam withstood the brute force of the storm.

MAKING A PORTABLE MAGNETIC LOOP ANTENNA

Al Duncan VE3RRD

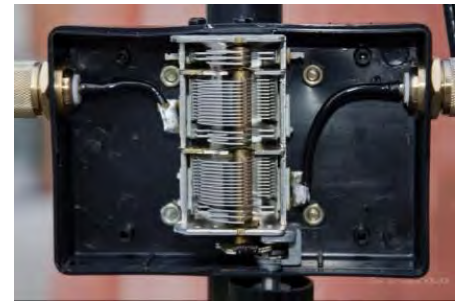
PART 1

A friend of mine had purchased an AlexLoop Walkham magloop (more info can be found at <http://www.alexloop.com/instructions2.html>). The specifications are quite impressive: Frequency range: 7 through 30 MHz Maximum TX power: 20W PEP or 10W CW Weight: about 3 pounds

The Walkham is very light weight and fits into a compact cloth bag for transport



On careful study and after taking some measurements of the AlexLoop Walkham, I found that the main loop was made from "Data Link DLC213 Premium Cellular 50 ohm" cable (similar to LMR400) with the center conductor and shield shorted together. Two gold plated PL-259 connectors are used to reduce resistance (even milli-ohms of resistance can be bad for a magloop) so that the total length of coax used (end to end) was 112 inches. The width of the plastic box is about 5 inches, so the diameter of the assembled magloop is about 37.25 inches. The coupling loop is just under 7 inches in diameter and is made from solid copper plastic covered ground wire (possibly 10 gauge or larger) and was quite stiff to bend so holds its shape well. The plastic pipe is 3 lengths of thin walled 1 inch O.D. (7/8" I.D.) about 14 inches long, allowing the antenna to be broken down small enough to fit the supplied bag. The tuning capacitor is a two section model with the stators connected in series. This results in a capacitance range of about 6 to 180 pf (or 12 to 360 pf for each section).



There are several reasons why using a two section air variable capacitor in series is better than a single section

- ☐ A very low minimum capacitance is needed to cover the 10m band with this diameter of loop, so a typical single section cap with a minimum of 12 pf probably would not cover 10m and may not even cover the 12m band. Placing the two capacitors in series, halves the minimum (and maximum) capacitance.
- ☐ Very high voltages exist across the capacitor in a magloop. At only 10W CW, voltages can be between 500 and 1000 VAC. At the 40 to 50W level, voltages can reach almost 2KV; and at 100W, voltages can reach between 3 and 4KV. Placing the two capacitor sections in series is the same as doubling the spacing between the plates, thus a close-spaced capacitor (such as is used in the AlexLoop Walkham) can handle a higher power level.
- ☐ The bearings and friction contacts connecting to the movable rotor can create noise, can introduce resistance and can limit RF current through the capacitor. These problems are eliminated by using a split stator in series since no high voltage RF current flows through the bearings.

A 3:1 gear drive is used on the capacitor so going from minimum (30 MHz) to maximum (6.9 MHz) takes 1-1/2 turns of the tuning knob. Since a magloop can have a very narrow bandwidth (especially at lower frequencies) some form of gear reduction is a must, or you would have a difficult time tuning it for minimum VSWR.

The AlexLoop Walkham is a great portable antenna, but is priced a little out of my range at about \$400 plus Canadian. I needed to come up with a design that used up some of my junk-box parts so that it would be cheap to build, but would work as well as the AlexLoop.

Regular $\frac{3}{4}$ " PVC pipe (1" O.D.) would work for the mast, although heavier in weight than what the AlexLoop uses. I had a single section E.F. Johnson air variable with a 2KV voltage rating and a capacitance of 12 to 244 pf, it had a better friction contact with the rotor than most and should handle 40 or 50W. I had some old 75 ohm RG-11 coax that didn't seem to have a use, and a little experimentation showed that I could fold it up without applying any torque to the endpoints. So I wouldn't need connectors (gold or silver plated), the coax can remain permanently connected to the capacitor. A friend gave me a piece of 8 gauge plastic coated solid copper ground wire which would work well for the coupling loop. I found a 5:1 planetary gear reduction at a hamfest which would give me 2-1/2 turns from minimum to maximum capacitance.

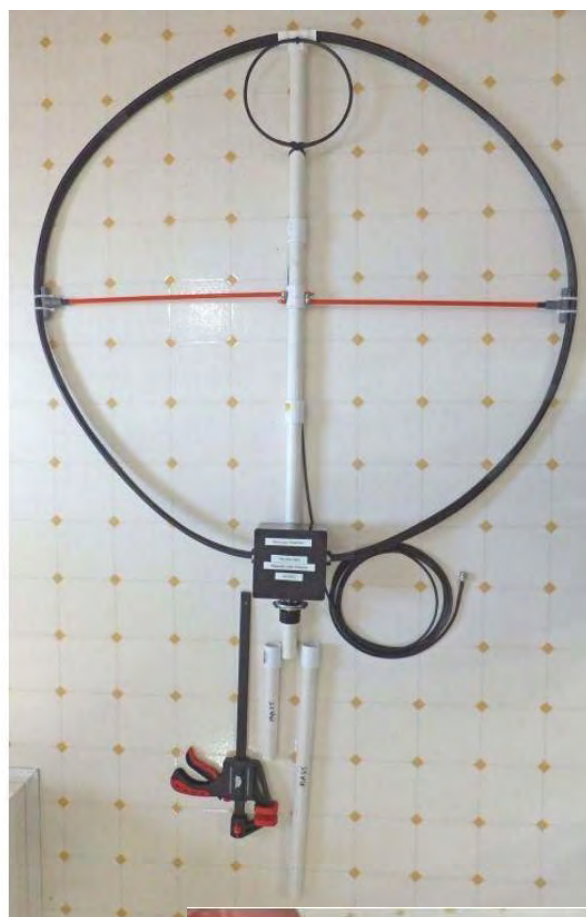
These and a few more pieces resulted in the birth of ----

The AlvinLoop PortaHam Antenna

Well, it's a little too heavy to walk around with while operating, but it is portable.

The picture shows the loop assembled and laying on the kitchen floor. I use a 12" Jobmate ratcheting bar clamp from Canadian Tire to attach to a picnic table etc. The shorter 8" mast prevents the metal clamp from reaching near the capacitor. The longer 19" mast is about as long as it can be and still fit in the bag (the PVC coupling adds another $\frac{3}{4}$ " to both masts). You will notice that I used two lengths of RG-11 connected in parallel. The centre conductors and shields of both lengths are connected together at each end. This produces a "wider" conductor for the loop which results in better performance. Some loop builders recommend a minimum conductor diameter for an HF loop of $\frac{1}{2}$ inch, while the shield diameter of a single piece of RG-11 is barely $\frac{5}{16}$ ". Since the loop produces a figure 8 radiation pattern with maximum RF off each end of the loop, and nulls off the sides; I fastened the two pieces of RG-11 side-by-side so that the width facing the direction of maximum RF is doubled. The squares on the floor are 4-1/2" by 4-1/2" for reference. The orange support rods are cut from two 4 ft long by $\frac{5}{16}$ " diameter fiberglass driveway markers (labeled as Blazer Reflective Staff) which I found at a Canadian Tire store (many markers are metal so bring a magnet to test them).

Below demonstrates how the double RG-11 loop can be folded up while still attached to the tuning capacitor box without the use of potentially lossy connectors.



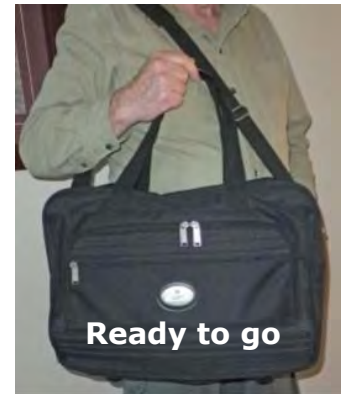
One



Two



three



The antenna and supports fit into a 13 x 20 x 6 inch Air Canada bag I found at a Value Village store for \$9. My loop, with all pieces packed in the carry bag, weighs about 10 pounds.

**Stay tuned with us next month when you can see part 2 of this article
Highlighting the Construction Details for this project.**

Richard, VE3NUL sent the following e-mail:

Bob

here is a list of freq. including Amatrur <http://www.qsl.net/kc9bvs/military.htm>

This is one very extensive list of short wave frequencies world-wide as well as military frequencies, amateur radio emergency frequencies in hf, vhf and uhf. Below is a tiny sampling of ham emergency frequencies in just the 40M band.

07055.0 LSB El Grupo Seguimiento de Huracanes (Spanish)
 07060.0 LSB Mexican (emergency and health & welfare) (Spanish)
 07070.0 LSB Manana (Baja California)
 07090.0 LSB Central America Emergency
 07145.0 LSB Bermuda
 07165.0 LSB Antigua/Antilles Emergency and Weather
 07165.0 LSB Inter-island 40-meter (continuous watch)
 07225.0 LSB Central Gulf Coast Hurricane
 07230.0 LSB New York State Emergency
 07230.0 LSB Southwest Traffic
 07232.0 LSB North Carolina ARES Emergency (Tarheel) (altn)
 07235.0 LSB Louisiana Emergency
 07235.0 LSB Baja California
 07235.0 LSB Central Gulf Coast Hurricane
 07235.0 LSB West Virginia
 07235.0 LSB Louisiana Emergency
 07240.0 LSB American Red Cross US Gulf Coast Disaster
 07240.0 LSB Texas Emergency
 07240.0 LSB Virginia Emergency, Bravo (health & welfare) (altn)
 07242.0 LSB Southern Florida ARES Emergency (altn)
 07243.0 LSB Alabama Emergency
 07243.0 LSB South Carolina Emergency
 07245.0 LSB Southern Louisiana
 07245.0 LSB New York State RACES
 07247.5 LSB Northern Florida ARES Emergency (altn)
 07248.0 LSB Texas RACES
 07250.0 LSB Belize
 07250.0 LSB Texas Emergency
 07254.0 LSB Northern Florida Emergency
 07290.0 LSB Gulf Coast Wx
 07290.0 LSB Texas ARES (health & welfare)
 07290.0 LSB Louisiana ARES (health & welfare) (day)
 07290.0 LSB Texas ARES (health & welfare)

07290.0 LSB Mississippi ARES (health & welfare)
 07290.0 LSB Hawaii Emergency
 07290.0 LSB Traffic
 07260.0 LSB Gulf Coast West Hurricane
 07260.0 LSB Virginia Emergency, Alpha (ARES/RACES) (altn)
 07264.0 LSB Gulf Coast (health & welfare)
 07265.0 LSB Salvation Army Team Emergency Radio (SATERN)
 07268.0 LSB Bermuda
 07268.0 LSB Waterway
 07273.0 LSB Texas ARES (altn)
 07275.0 LSB Georgia ARES
 07280.0 LSB NTS Region 5
 07280.0 LSB Louisiana Emergency (altn)
 07283.0 LSB Gulf Coast (outgoing only)
 07285.0 LSB Louisiana ARES Emergency (day)
 07285.0 LSB Mississippi ARES Emergency
 07285.0 LSB Texas ARES Emergency (day)
 07290.0 LSB Central Gulf Coast Hurricane
 07290.0 LSB Gulf Coast Wx
 07290.0 LSB Texas ARES (health & welfare)
 07290.0 LSB Louisiana ARES (health & welfare) (day)
 07290.0 LSB Texas ARES (health & welfare)
 07290.0 LSB Mississippi ARES (health & welfare)
 07290.0 LSB Hawaii Emergency
 07290.0 LSB Traffic

RAC BULLETIN April 15, 2018

[RAC-Bulletin] Revised Canadian Table of Frequency Allocations now includes additional 15 kHz for 60 Metre Band with the same power limits as earlier allocated spot frequencies



For immediate release:

In August 2017, the [Department of Innovation, Science and Economic Development Canada \(ISED\)](#) issued "**Proposed Revisions to the Canadian Table of Frequency Allocations**". These proposed changes followed decisions made at the World Radiocommunications Conference in 2015 (WRC-15) that included a 15 kHz-wide allocation for the Amateur Service in the 60 metre band. The proposed revisions to the Table would retain the original five 5 MHz spot frequencies with 100 watts of effective radiated power, but restrict the new 15 kHz allocation to only 15 watts (eirp), the agreement at WRC-15 that accommodated concerns of a few countries over possible interference to their domestic communications. Decisions these days at World Radio Conferences require unanimous consent of all member nations.

Radio Amateurs of Canada noted in its response to the proposed changes that there had been no reports of interference from Amateur Radio operations on the existing five 60m spot frequencies following their use in Canada since 2014 and in the USA for even longer. Further, the rationale for allocating the spot frequencies had been based on the value of 60m for emergency communications and the low power limit adopted at the WRC would seriously limit this use. Other responses from the Radio Advisory Board of Canada (of which RAC is a member organization), the Ottawa Valley Mobile Radio Club, the Marconi Radio Club of Newfoundland and several individual Radio Amateurs also recommended 100 watts. The new allocation will be more effective and manageable for domestic SSB communications and consistent with the existing use of the band on the five spot frequencies now enjoyed by Canadian Amateurs. The responses can be read at: <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11346.html>

We are happy to report that in their release of the **Revised Table of Frequency Allocations** (<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10759.html>) issued on April 13, 2018, ISED has addressed the concerns of the Canadian Amateur Radio community. The Revised Table now allocates the band 5351. kHz5 - 5366.5 kHz (which overlaps one of the previous 60m spot frequencies) and the four previously allocated spot frequencies (5332, 5348, 5373 and 5405 kHz). The conditions for the use of the band and spot frequencies remain the same as those governing the spot frequencies previously: maximum effective radiated power of 100 watts PEP, 2.8 kHz emission bandwidth and permitted modes telephony, data, RTTY and CW. The Table notes that the Amateur 60m allocations are not in accordance with international frequency allocations and that Canadian Amateur operations shall not cause interference to fixed or mobile operations in Canada or other countries. As in the previous allocation of the spot frequencies, the Table notes that if interference occurs the Amateur Service may be required to cease operations. This is a standard condition of domestic allocations and as noted previously by RAC has not occurred during operation on the previously allocated and authorized spot frequencies.

Even though the Canadian Table of Frequency Allocations now identifies this new 60 metre allocation for the Amateur Service, Canadian Amateurs must await authorization by ISED before using the new 15 kHz segment. Such authorization is normally effected via a revised issue of document RBR-4 – *Standards for the Operation of Radio Stations in the Amateur Radio Service* (<https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10650.html>). Radio Amateurs of Canada will be urging ISED to authorize the new 15 kHz segment as soon as possible.

Glenn MacDonell, VE3XRA
RAC President and Chair
ve3xra@rac.ca

Stop That Phish

Submitted by Ted VE3TRQ

Overview

Email and messaging services (such as Skype, Twitter, or Snapchat) are one of the primary ways we communicate. We not only use these technologies every day for work, but also to stay in touch with friends and family. Since so many people around the world depend on these technologies, they have become one of the primary attack methods used by cyber attackers. This attack method is called phishing. Learn what phishing is and how you can spot and stop these attacks, regardless if you are at work or at home.

What Is Phishing

Phishing is a type of attack that uses email or a messaging service to fool you into taking an action you should not take, such as clicking on a malicious link, sharing your password, or opening an infected email attachment. Attackers work hard to make these messages convincing and tap your emotional triggers, such as urgency or curiosity. They can make them look like they came from someone or something you know, such as a friend or a trusted company you frequently use. They could even add logos of your bank or forge the email address so the message appears more legitimate. Attackers then send these messages to millions of people. They do not know who will take the bait, all they know is the more they send, the more people will fall victim.

Protecting Yourself

In almost all cases, opening and reading an email or message is fine. For a phishing attack to work, the bad guys need to trick you into doing something. Fortunately, there are clues that a message is an attack. Here are the most common ones:

1. A tremendous sense of urgency that demands "immediate action" before something bad happens, like threatening to close an account or send you to jail. The attacker wants to rush you into making a mistake.
2. Pressuring you to bypass or ignore your policies or procedures at work.
A strong sense of curiosity or something that is too good to be true. (No, you did not win the lottery.)
3. A generic salutation like "Dear Customer." Most companies or friends contacting you know your name.
4. Requesting highly sensitive information, such as your credit card number, password, or any other information that a legitimate sender should already know.
5. The message says it comes from an official organization, but has poor grammar or spelling or uses a personal email address like @gmail.com.
6. The message comes from an official email (such as your boss) but has a Reply-To address going to someone's personal email account.
7. You receive a message from someone you know, but the tone or wording just does not sound like him or her. If you are suspicious, call the sender to verify they sent it. It is easy for a cyber attacker to create a message that appears to be from a friend or co-worker.
8. Ultimately, common sense is your best defense. If an email or message seems odd, suspicious, or too good to be true, it may be a phishing attack.
9. Subscribe to OUCH! and receive the latest security tips in your email every month - www.sans.org/security-awareness/ouch-newsletter



RAC BULLETIN April 24, 2018



Royal Wedding between HRH Prince Harry and Ms. Megan Markle

<http://wp.rac.ca/royal-wedding-special-call-sign-gr9rw/>

The **special call sign GR9RW** will be active for five days in May to mark the occasion of the Royal Wedding between His Royal Highness Prince Harry and Ms. Megan Markle, which is due to take place on **May 19, 2018** at St. George's Chapel in Windsor Castle in England.

This commemorative Amateur Radio station will be operated by members of the Cray Valley Radio Society from Eltham in southeast London, in the United Kingdom.

Ofcom, the communications regulator in the United Kingdom, has issued this unique Special Event call sign to be used from **May 19 to May 23** inclusive, and it is believed "it may be the first time that the 'GR9' prefix has ever been active".

GR9RW will primarily use SSB and CW, and additionally FM on the VHF and UHF bands. Two HF stations and one VHF station will be active and will cover all bands from 80m to 70cm.

A very special QSL card will be sent on request and cards can also be requested via OQRS.

For more information visit the Cray Valley Radio Society's website at <http://www.cvrs.org/> and look on the QRZ page for GR9RW for details of the station and how to obtain the special QSL card.

Up-to-date information will also be posted on the Cray Valley Radio Society's Twitter feed: [@G3RCV](#).

For further information about the Royal Wedding itself please visit: <https://www.royal.uk/royal-wedding-2018>

Alan Griffin
RAC MarCom Director

"Alexa, help me with ham radio"

By Dan Romanchik, KB6NU

I have had an Amazon Alexa for nearly a year now. Mostly, I just use it to listen to internet radio stations or tell me a joke, but I think it has more potential than that. For example, I've written before about how I'd like to develop an Alexa skill to control my IC-7300. I haven't gotten around to that yet, but, Joe, N3HEE, has just published an Alexa skill called Continuous Wave. It's designed to help you learn Morse Code.

To use this skill, you have to first enable it. Once enabled, say, "Alexa, open Continuous Wave." This opens the skill at the main menu. You can then say any of the following at any voice prompt...

- Learn
- Practice
- Alphabet
- Common words
- Random words
- Words
- Sentences
- Call signs
- Contest
- Quick Brown Fox
- QSO
- Help
- Stop – To end your session.

I've just played around with this app for a short time, but I've found it to be quite entertaining. It does, however, have one big drawback. You can't set the speed. It's currently limited to sending at 20 words per minute only.

Also, the learn function could use a little refining. When you give the command "learn," it asks you for a character, sends that character three times, and then asks you for another. If you could set the speed at which the skill sends characters, it could teach a character like the K7QO Code Course, first sending the character slowly, then ramping up the speed.

Overall, though, I think this is a great first shot at a usable Alexa skill for teaching Morse Code. I hope this is the first of many versions of this skill.

Other ham radio skills

While I was poking around on Amazon, I decided to see what other amateur radio skills might be available. Here are a few that I found:

Ham Exam. Ask Alexa to ask you questions from the Technician Class question pool.

Ham Lookup. Allows you to look up amateurs by call sign. Information is provided from the callbook.info database.

Ham Radio Propagation Forecast. Reports the latest forecasts directly from HamQSL (run by NONBH).

ARRL Audio News. Adds ARRL Audio News to your Alexa flash briefing.

Building your own voice app

The Continuous Wave Alexa skill was developed using tools found at VoiceApps.Com. Two other websites—Pullstring and StoryLine—also have tools to help you build voice apps. And, Amazon has an online tutorial that will teach you how to build an Alexa app. I'm just getting started with these tools, so I can't recommend one over the others, but they do look like they'll make developing voice apps easier.

Since I'm currently in the process of updating my *No Nonsense Technician Class License Study Guide*, it occurs to me that I should also develop an Alexa skill for drilling students on test questions. I guess you could call them audio flashcards. Stay tuned for that.

When he's not trying to figure out how to build voice apps, Dan blogs about amateur radio at KB6NU.Com, teaches ham radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him about the voice apps that you like at cwgeek@kb6nu.com.

VE3ERC Elmira Radio Club Inc.

Minutes from April 25, 2018

1. Call to Order & Welcome

The meeting was called to order at 7:30 pm by Brian VA3DXK .

2. Roll Call: VA3TET Al, VE3DXQ Tom, VA3GWM Gord, VE3CXU Doug, VE3JMU Jim, VA3PDC Paul, VE3DCC Rich, VE3QB Bruce, VE3DWI Tony, VE3IXX Bob, VE3YBM Brian, VA3FJM Frank, VE3EIX Harry, VE3CD Harold, VA3QB Bill, VE3IXX Bob, VE3CD Harold, VA3DXK Brian, VE3DWI Tony, VE3KCY Ken, VE3AUS Al, VE3YBM Brian, VE3TGY Tracy, VE3JVG Jason, VE3IXX Bob, VE3ML Wes, VA3SQD Dan.

3. Adopt Agenda : Agenda was approved.

4. Secretary's Report: Tom VE3DXQ asked if there were any errors or omissions from the March 2018 minutes. None were mentioned. Tom made a motion to have the March minutes accepted. This was seconded by Bill VA3QB. Motion carried.

5. Treasurer's Report: Paul VA3PDC showed us the financials to date, including dues collected, 50/50 draw proceeds and current balance. Paul VA3PDC made a motion to have report accepted, and this was seconded by Brian VE3YBM. Motion carried.

6 Vice President's Report BRIAN VA3DXK

- Annual membership dues: \$40 per RAC member and \$50 per non-RAC now due. We do have enough members belonging to RAC to have Insurance from them.
- AGM & Officer Elections to be held during the regular May 23rd meeting. There may be some changes to the constitution or By-laws. He will send info on this sometime this month so it can be voted on at the AGM
- Brian VE3DXK passed along a note from Joyce VA3WXU that she will not be returning as president, and thinks highly of us and wishes us well. She is tending an ill sister and is in the states at this time.

7. Committee Reports:

- Safety Officer : Tom VE3DXQ No incidents to report.

• **Nominations Committee** (Brian VA3DXK / Jason VE3JVG / Rich VE3DCC / Paul VE3PVB)
 Rich VE3DCC got up and presented the nominees. Brian Filbey VA3DXK for president, Ted Rypma VE3TRQ for vice president, Paul Curtin VA3PDC for Treasurer (incumbent), Tom Mahony for secretary (incumbent), John Sheeringa for Trustee (incumbent). No other nominations were forthcoming. Rich VE3DCC told members present to email him if you are interested in running for any of these positions.

• **Elmira Maple Syrup Festival** April 7 : Al VA3TET thanked all those who came and helped set up our table and Antennas. The tear down only took 20 mins. Many hands make light work. Al said that nobody can find the Elmira Radio Club Banner. Judd VE3WXU said either Paul VA3PDC has it or Al VA3TET. It is in a tube 4ft long. Paul said he definitely does not have it. Al said he will check again. Brian VA3DXK said he would check with Judd VE3WXU and Joyce VA3WXU again. Tom VE3DXQ mentioned a reporter came by from the Observer and was interested in doing a story on us. Tom passed the reporter's business card onto Bob VE3IXX to pursue this.

• **Field Day** June 23-24 (Al VA3TET, Bruce VE3QB, Frank VA3FJM, Bob VE3IXX)
 Brian VA3DXK said we are still trying to decide on a location for field day. Frank VA3FJM said he found out who to contact for the McLennan Park location, but so far unable to get a hold of him. Rich VE3DCC mentioned Gibson Park right in Elmira, but this would not work because of too much noise from generators. There was much discussion about various locations. Bob VE3IXX is open to having it at his place. This will be decided at next month's meeting.

• **Fall Conference/Workshop** (Rich VE3DCC Al VA3TET)
 Al VA3TET sent letters to 4 Universities regarding this event. So far none have responded or acknowledged the requests. Al said he would send follow up letters to the Universities requesting a response. Rich VE3DCC said there was no response from the Quantum institute. He did get a response from the Perimeter Institute, and they said they would not be able to arrange a speaker there, but could arrange a road trip for up to 10 people. Rich said he will continue to pursue Quantum. Also Al VA3TET said Gord Hayward from the KWARC club is willing to speak on VLF. Another possible speaker may be Jodi Lavine VE3ION. She is an expert on grounding.

• **Website Manager** (Ted VE3TRQ) Ted was unable to be present and there was no report.

8. Unfinished Business: Brian VA3DXK asked about TCA, the RAC official publication going to the school library. Rich said as far as he knows it is still going to the Elmira school library.

Trusteeship of club call sign and repeater licence. Brian VA3DXK said that Carl Rooney is willing to turn this over to someone. Wes VE3ML is interested in taking this over. Brian said you have to have an advanced ham licence for this, and Wes does have one. Brian VA3DXK asked Rich VE3DCC about the procedure to move trusteeship of club call sign and repeater licence. KWARC has done this in the past and Rick Goetz VE3ZUP, would be the person to contact for this. Bill VA3QB made a motion that Trusteeship of club call sign and repeater licence go to Wes VE3ML seconded by Bruce VE3QB. This will be done once Brian gets the information on the procedure for this.

Woolwich CAER Emergency Preparedness Open House Friday May 11, 2018.

This event is at the Woolwich community center from 10:00 am to 2:00 pm and there is a complimentary lunch provided. Grade 7 students are bused into this event. Paul VA3PDC said he has sent in the forms for this and the set up will be the same as last year. Brian VA3DXK said it is important for public awareness of our club and it is good to maintain our connection to the fire department. Brian VA3DXK mentioned the CAN network that keeps a phone list to alert people in Elmira in the event of an emergency.

• Radio gear dispersal & June Hamfest (Al VA3TET Reg VE3RVH)

Reg VE3RVH is looking after the registration for the club table. Al VA3TET, Reg VE3RVH, and Ted VE3TRQ are taking inventory of Ralph Brubaker's (VE3EUC) equipment. They have not found the ICOM 970 as yet. The ICom 746 is still at Ralphs. There are some VHF and UHF radios , rotors, and test equipment. This inventory is still in progress.

.Al VA3TET made a motion that the club purchase the Alinco MV330DM power supply for the club emergency "go box". This was seconded by Rich VE3DCC. Carried. The club has a a Kenwood TS440 for HF communication.

A motion was made by Brian VE3YBM to have an emergency "go box" for the club. This was seconded by Bill VA3QB. Carried.

Tom VE3DXQ made a motion to Adjourn the meeting seconded by Gord VA3GWM. Carried

Meeting ended at 8:45 pm

**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 spe-
cial project you are working
on or a special interest!**

SEND THEM TO:

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

