



The Halifax Amateur Radio Club

REFLECTOR



2050 Hammonds Plains Road
Hammonds Plains NS
B4B 1P3

October 2020, Volume 81 Number 10

club web site is www.halifax-arc.org

**Due to Covid-19 we have decided not to hold in person meetings.
This will be the last Reflector non renewed 2019 members will receive**

HARC Club Station phone number - 902-490-6421

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President - Brian Allen, VA1CC 489-4656 basailor@eastlink.ca
First V.P. - Jason Ingraham, VE1PYE 292-9924 VE1PYE@bellaliant.net
2nd V.P. - VACANT
Secretary - Roger Stein, VA1RST 403-3738 burch.craft@gmail.com
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Station Manager: - Don Trotter, VE1DTR don_trotter@hotmail.com
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2021 Field Day Coordinator Vacant
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RAC Atlantic Director - Dave Goodwin, VE9CB ve9cb@rac.ca
RAC Section Manager - Dave Hull, VE1HUL d.hull@ns.sympatico.ca
RAC Assistant Director for HRM Scott Wood, VE1QD, 823-2191 ve1qd@rac.ca

All phone numbers must be preceded by area code 902 when dialling, unless otherwise indicated

The October, 2020 General Meeting of the Halifax Amateur Radio Club will be held Wednesday, October 21 - the method (**virtual**) and time will be sent in an e-mail. Check your e-mail for details as the date approaches. Also check the web site for any other updates. **Currently there is no access to Station 50.**

Due to the global pandemic most if not all events have been cancelled. See page 2 for coming events. You can also read about possible alternatives for some events in the following pages.

Quote by George Burns
May 29, 1903 - July 27, 2003
ON HIS FAMILY'S EARLY POVERTY '*Four of us slept in the one bed. When it got cold, mother threw on another brother.*'

GENERAL INFORMATION



Sunday evenings:
TAKE-15 NET at 8:30 PM
CLUB REPEATERS:
VE1PSR - 147.270 MHz + TX=82.5
VE1PSR/UHF - 444.350 MHz +
VE1PSR/6M - 53.550 MHz -
access and TX tone 151.4 Hz
VE1HNS - 146.940 MHz - TX=82.5
PACKET: VE1NSD 145.050 MHz
LAN NODE

Take-15 Net Controllers

This will be the rotation. **We need more net controllers. If you want to join, let Bill Elliott, VE1MR, know.**



Oct.	18	Gary	VA1GGM
Oct.	25	Bill	VA1ALW
Nov.	1	Cam	VE1BIT
Nov.	8	Peter	VE1WIN
Nov.	15	Gary	VA1GGM

Please send any issues (broken links, missing information, etc.) found on the H.A.R.C. Website to our Website Manager, Brandon Fowler, VE1BMF, at bmfowler95@gmail.com

Deadline for submissions to the November 2020 Reflector is Saturday Nov. 7, 2020

Lets give VARA a try!

Coming up in November, CFARS (Canadian Forces Affiliate Radio Service) will be conducting a Nation wide on the air exercise. We will be using Winlink via VARA HF Modem on HF this year for message handling. I am in no way an expert in this and I have run into a few problems with getting it to work.

Firstly, VARA HF modem is "Sound Card" software that allows Winlink to operate on HF without any extra hardware between your computer and radio, other than a sound card and a CAT interface that is. You may find you will have to do some tweaking on your rigs menus to get it to work properly. I'm only going to go over my challenges since there is already a lot of great info on how to get it working on the developers web site, which is

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

Plus there are a number of videos on Youtube.

After about a week of trying, I finally succeeded in getting VARA to work. Thanks to a couple of CFARS members, I was able to figure it out. So here's the fix for those who might run into the same problem. Firstly, my rig is a Yaesu FT 920 and I'm using a Signalink USB for my sound card and a USB to serial interface for my CAT control. Yours may be different, depending on your HF rig.

After resolving the problem with my virus scan giving me a "false positive" causing everything to come to a grinding stop, I continued to search out the problem. No there were no viruses in the software thus the false positive. I sent a problem ticket to my virus scan developer (Bit Defender) and they resolved the issue.

The cool thing about VARA is how nicely everything works, once it is set up properly. If your CAT control is working properly, and your rig is set up properly, you

really don't need to mess with getting your rig on the right frequency or mode every time you use VARA; it does it for you!

After multiple tries to connect to a few different CMSs I called up another local Ham/CFARS operator and we compared the sound of his on the air signal to mine. There was a slight difference, so I thought there might be a frequency shift going on somewhere when my rig was in DATA mode, and I was right. I found out I had to be within 50Hz of the designated CMS operating frequency in order to get it to work at all. Interestingly enough, other digital modes I tried seemed to work for me. I looked into some supplemental documentation I had for my rig, and found a good explanation of a menu item that changes the "display offset" when in DATA mode; the offset was set by default to 2.125 Khz. OK, so what does that mean? I asked myself. Well, the displayed operating frequency is not the actual operating frequency when in DATA mode. Cool. Despite instructions in the owners manual that says the offset is correct, I changed that setting anyway, to "0", and away she went, works perfectly! On my rig it is menu item U-45 "Packet Frequency Display Offset". If you are having problems getting VARA to work, this may be your problem. You see, this setting has nothing to do with the offset for normal USB or LSB, which are two totally different menu items in my rig.

Anyway, if you are interested in using Winlink on HF - rather than spending big bucks on a Pactor modem, you may want to try this software. You can use it free in evaluation mode with a reduced output speed for however long, or you can purchase it for somewhere between \$90 and \$100 (depending on the exchange rate). Give it a try!

Terry Bigelow VE1TRB/CIW848

Needed

The H.A.R.C. needs to fill the following position.

.Safety Officer - as incumbent Pat Kavanaugh, VE1PK, is having health issues and needs to step down.

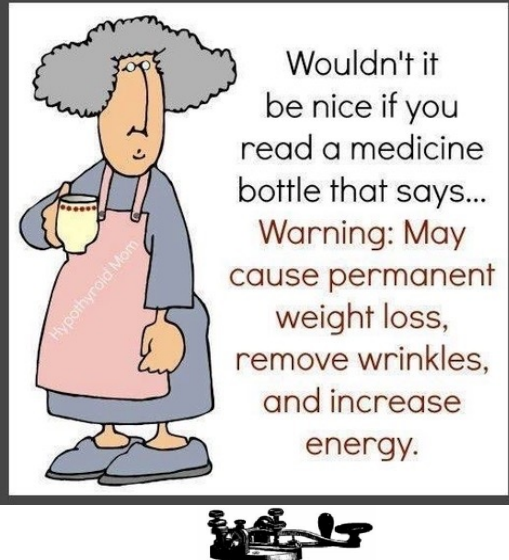
Please contact President Brian if you are interested in this position. Pat will help you with the transition.

Do you have pictures, an interesting or funny radio-related story, an article or a question or news you would like to share via the HARC Reflector? Please send it/them to Lynn at bowser.elliott@ns.sympatico.ca

Please show "For Reflector" on the "Subject" line so I don't miss it. Thanks!.-ed

The Atlantic Amateur
Ham Radio for the **Atlantic**
Provinces
www.atlanticamateur.ca

The NSARA website is at
<http://nsara.ve1cfy.net>



PRESIDENT'S MESSAGE for October, 2020

Hello all fellow amateurs, by the time you get to read this Thanksgiving will be over for another year. Once again Covid-19 has changed the way we and this year for us has been very quiet with no family present. One good thing, the weather was good and there was some propagation over the course of the weekend. I hope this note finds you all well and that you were able to enjoy your Thanksgiving, whatever form it may have taken.

News from the club remains very quiet for now as there has been minimal activity because of Covid. However, we do continue to do the Exercise Handshake that is being done by Fraser, VE1WO; George Snow, VE1CAW; and John, VE1BIR. Thank you Fraser for leading the charge on this very important event the last Tuesday of the month. (we are allowed only 3 people to do this task for now at the club). The team tests all of our equipment for operability that covers vhf/ uhf / tmr /900 mhz. & hf. The test log is also filled out before leaving and a very important clean up as they head for the door.

I try to read all the new info concerning atmospheric propagation from NOAA & NASA. They say we are starting cycle 25; however, there are times I would dispute that statement. We have had some numbers that were pretty dramatic in the range and at times you could not work your neighbour. Really strange affects.

FOLKS- WE ARE IN NEED OF HELP: We need an auditor to go over the books which - if Bill, VA1ALW, has done his homework - should take about 4 hrs to complete.

We need a membership chair.

We need a SAFETY OFFICER

IF you feel that you can help your club out, please let any member of the executive team know and we can set up a meet with the current member doing that function. **THANK YOU:**

Don Trotter, VE1DTR; Bill, VE1MR; Jason, VE1PYE; Fraser, VE1WO; & myself along with some of you are organizing a **WORK PARTY** for the tower project at Cowie Hill. We need help as we have to pull in 2 heliax cables each approx. 160ft long. We have a couple of antennas that need to be replaced & tested. With many hands we can make this light & fast work. Please stay tuned for a message from Jim about this critical event. **ALL COVID PROTOCOLS WILL BE IN EFFECT. i.e. MASKS, GLOVES, HAND SANITIZER & DISTANCE AS BEST WE CAN.**

Now for a story that came to my attention last week via a phone call from Virginia, U.S. Around 17:30 Nancy phoned me to find G5DJW/VE1 Arthur, Osmond's phone number & address. My first question was how did you get my number? And she told me that she reads our REFLECTOR on line. When I asked her about her interest in Arthur she told me that he was responsible for peaking her interest in amateur radio and more specifically MORSE CODE,. Nancy was calling me for his phone number so that she can thank Arthur personally. In talking with her I found out that back in 2016, she acquired self study materials from the ARRL and proceeded to study for her first licence - accomplished that in October of that year. Nancy also said that in November she wrote her next licence and finally in January she had written and passed her extra class licence all done by self study. Further to this she has also passed her Radio Telegraph Operators certificate as well as her 20wpm cw test from W1AW. I was shocked that she accomplished so much in such a short period of time so I congratulated her on her efforts. Nancy also has her DXCC SSB AWARD and has 66 countries on CW working toward her DXCC FOR CW. IN our conversation, I asked her if there was some way in which she could pay it forward as Arthur had done for her in his own way of conversation and actually doing her name in CW. She tells me that she runs a GOTA tent on field day that is dedicated to the teaching of CW to new comers. Nancy also substitutes on a weekday night if the CW instructor is absent. She is paying it forward. Nancy did not want this story to be about her, instead, about Arthur and his efforts at the Museum Of the Atlantic. She asked me to ensure that he gets all the credit for his kindness, influence & dedication to amateur radio and the art of CW. I hope when Nancy reads this note she will feel that I have done justice to Arthur and of course to her for her remarkable effort to become an amateur in such a short time.

I am proud to know that we can make a difference in a small way and extremely proud of Arthur for his outstanding contribution to our club. Nancy is on QRZ.COM and her call is N1GFV. She is by for a call if any club member hears her on or she will set up a sched with you. She will work you on SSB or CW and finds that 10mhz is her best band for dx but she does work all other bands. This is a great story and I want to thank Nancy for taking the time to call, inform me of Arthurs influence & kindness & permission to have this in our paper.

I hope to see you all at our virtual general meeting on the 21st October at 7pm. Everyone take care and be **SAFE** as this virus may be making a second round sooner than they thought.

73 - Respectfully, Brian Allen- VA1CC, President of the HARC

RAC Online Beginner's CW Course: October 2020

<https://www.rac.ca/rac-online-beginners-cw-course/>

In response to the global pandemic, Radio Amateurs of Canada is continuing to offer Amateur Radio online courses so that individuals can obtain their Amateur Radio certification or can upgrade their qualifications while practising social/physical distancing.

We are pleased to offer a Beginner's CW Course which will be provided by Tony Pattinson, VE2KM, to teach Morse Code to Amateurs and help them get on the air with CW.

Course Information:

The primary language of instruction will be in English, mais je peux répondre à vos questions en français.

Objective: To enable any Canadian Radio Amateur of any level to send and receive CW at a speed of at least 5 wpm and to be able to pass the Innovation, Science & Economic Development Canada's 5 wpm Morse Code test.

Start Date: The target date for the start of the course is October 2020. A survey will be sent to applicants to determine the best schedule.

Duration: The course will consist of two, 1-hour, group sessions via Zoom per week for eight weeks.

Class Size: Each class will be limited to a maximum of 5 students. Multiple classes may be organized if necessary to accommodate different time zones.

Cost: The course will be offered free of charge to RAC members. Non-members may participate by donating \$150 to the RAC Youth Education Program which "provides youth & their leaders with an innovative way of learning by introducing them to the wonderful world of Amateur Radio".

Course Instruction: As indicated earlier, the course instructor is Tony

Pattinson, VE2KM and he provided the following bio. You can find additional information on his QRZ page at:

<https://www.qrz.com/db/VE2KM>
"I was originally licensed as G3YAO in 1968. On arrival in Canada in 1980, I immediately qualified at the Advanced level and was issued call sign VE2FUP. After a short wait I was pleased to be issued VE2KM. I was inactive for over 30 years but have recently (2018) decided to start up again. I have three other call signs -VA2XDX, VA2KCC and VE0XDX. The latter was obtained so I could operate from a 60-foot schooner that I was helping deliver to the Bahamas in December 2019.

CW has always been a passion with me and I was able to regain my previous operating speed helped in great part by the CW Academy advisors John, AJ1DM, Ted, WA3AER, & Joe, KK5NA. I graduated from Level 2 in May 2019 & from Level 3 in Nov. 2019. I was accepted as a life member of CWOps in January 2020 with #2424.

I am delighted to be teaching CW again (2020) as an Advisor for the CW Academy and also on behalf of RAC and the Straight Key Century Club (SKCC). I am a member of FIST and SKCC. I obtained SKCC Centurion and Tribune status in February 2020 and am gradually (but slowly) building towards Senator status. Since being accepted as a CWA Advisor I have taught, and am currently teaching, classes to Amateurs in both the United Kingdom & North America."

Course Requirements: Participants in the RAC Beginner's CW Course will need to meet all of the following requirements.

Note: If you cannot meet the following requirements please do not apply. You will be wasting your time and potentially denying a place to someone who can.

Commitment to 1-hour (4 x 15 or

5 x 12 minute sessions) of practice every day, for the full duration of the course.

Commitment to record at least one Character Recognition exercise each week and send it to VE2KM for analysis.

A computer with a hard-wired internet connection (no Wi-Fi) and with Zoom installed (the free version is fine).

A webcam and microphone.

A method of generating CW; either from a rig sidetone or a code practice oscillator using a straight key or paddles with sufficient volume to be picked up by the webcam microphone. Preference will be given to straight key operators.

The capability to record CW using the computer then export the file in MP3 format. There's free software such as Audacity available to do this.

If you are sufficiently motivated, willing and able to meet the above requirements, Tony, VE2KM, will be happy to work with you to achieve your goals.

Course Registration: Unlike previous Amateur Radio courses provided by Radio Amateurs of Canada, the registration for the Beginner's CW Course will be handled by the instructor Tony Pattinson, VE2KM.

To apply for the course please send an email directly to Tony at VE2KM@YnotSailing.com with "RAC CW Course" as the subject line.

If you need any assistance from Radio Amateurs of Canada please contact the RAC Office at racgm@rac.ca.

Glenn MacDonell, VE3XRA
RAC President and Chair

Alan Griffin
RAC MarCom Director

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All Because I Wanted a QSL

QSL - the final courtesy of a QSO. This is a special story indeed.

I have always loved getting QSL cards ... even after collecting 10-20,000. This summer while catching up on my QSL backlog, I was checking my log for those important QSL cards that I wanted more than just the regular “bureau” cards. I chase IOTA (Islands On The Air), DX QSL’s (357 countries confirmed), and “Special Event” calls with special meaning or special prefixes (for WPX). One of those special event calls was OL75CLAY from the Czech Republic. There was no QSL manager listed in my log, so I looked it up on QRZ.com, and that is where this most interesting story begins.

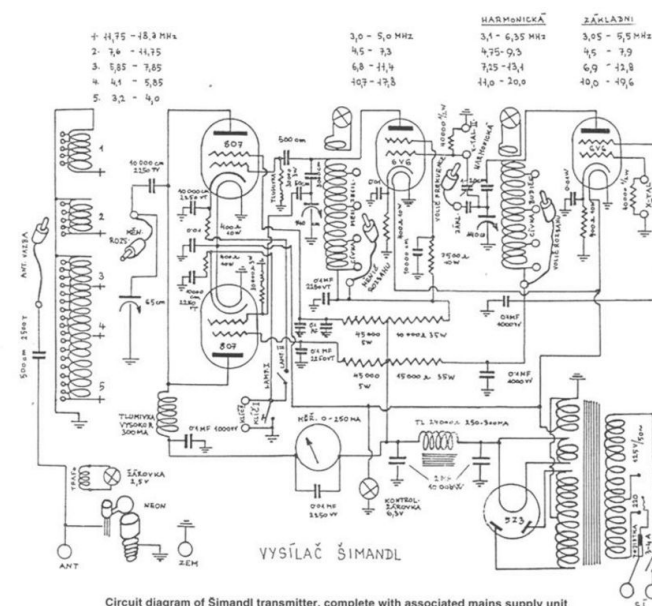
The “CLAY” part of the callsign OL75CLAY referred to a WW II operation code named “CLAY” that took place in April 1944, 75 years ago. The story is about 3 young paratroopers from the Czech Republic who had made their way to London at the early part of the war, one of whom was a radio operator. They were trained in England, by the Czechoslovak Ministry of Defence in exile in England. The team was taken to Italy where on the night of April 12, 1944 they were flown from Italy to Hostisova, Czechoslovakia where the 3 brave men parachuted in during the wee hours of the morning of the 13th.

Of particular interest to me was the fact that the aircraft used to drop the 3 paratroopers was a "Halifax" bomber flown by a Canadian crew.

I have an intense interest in WW II aircraft, having been born in 1944. Of course the Halifax bomber is of particular interest for obvious reasons, being a Haligonian. I have visited and photographed many aircraft museums in Canada, England and throughout the USA. There is 1 Halifax bomber in Canada at the RCAF museum in Belleville, ON. Aircraft enthusiasts may recall that is the one that was recovered from the bottom of a Norwegian Fjord a few years ago. It was brought over to Canada where it has been restored and is currently on display at the museum. I was in it by special invitation while it was being restored. That aircraft also had been flown by a Canadian crew, and was used to supply the resistance fighters in Norway, when it was lost returning from a mission. Sadly some of the brave crew members were lost, some survived. We must never forget their sacrifice.

During operation CLAY the 3 troopers sent some 800 messages to London, regarding the co-ordination of supply drops, weapons drops, train movement etc. The radio they used is described on the QRZ page and is very similar to my first transmitter ... 5U3 rectifier, 6V6 oscillator and an 807 amplifier. (my TX was 5U4 6L6 and an 807). Just for the younger crowd, those numbers refer to those

old transistors that had lights in them, for filaments & grids & stuff.



Circuit diagram of Šimandl transmitter, complete with associated mains supply unit

The operation was very successful, and is celebrated annually in the village. We also have a local connection through Martin OK2MNM/VE1 who is a HARC club member. He & I getting together so I can learn some more. Martin & his family back home are very familiar with this operation and have friends who were involved but do to the secrecy of it all were not aware of it at that time. The story continues.

The listing for OL75CLAY on QRZ.com said I should send \$3.00 US for a QSL to be returned via direct mail. There are many ways to send return postage, so I sent off an e-mail to OL75CLAY requesting some information on the safest way to send the postage funds to them. In that e-mail I thanked them for mentioning the Canadian connection on QRZ and also my interest in the Halifax bomber. I received a tremendously warm reply from Pavel, OK2BMA, with some more details about the operation, and a very friendly note that there would be no need to send any postage to him as he would send my QSL direct at no cost. The OSL arrived this week.

What a tremendous hobby we all have at our disposal.

“Národu, který si neváží svých hrdinů, hrozí, že nebude žádné mít, až je bude potřebovat.”

“The nation that has no respect for its heroes is in danger of having none of them when it needs them.”

Ferdinand Peroutka, (1895-1978) the famous Czech pre-war journalist and writer

Dick Grantham, VE1AI

Money can't buy happiness, but it keeps the kids in touch

**Halifax Amateur Radio Club
Minutes of the Virtual General
Meeting of 16 September 2020**

1. Welcome to the HARC virtual monthly meeting for September 16, 2020: The virtual meeting was called to order by President Brian, VA1CC at approximately 1910.

2. Report of any Silent Keys: The following amateurs in the Maritimes have passed since the last club meeting, Rod Sandall, VE1AYI of New Glasgow, NS on Aug 20; J. Christopher Colwell, VE9JCC of Little River Hill, NB on Sept 1; and Garnet Cluet, VE1EDG of Liverpool, NS on Sept 8. Additional information can be viewed at

<https://www.westcumb.ca/maritime-silent-keys-2020>

3. Acceptance of the Agenda: A request was made to accept the agenda as presented by Brian, VA1CC. A motion was made by Bill, VE1MR to accept the agenda, seconded by Tim VE1TIM. Unanimous hands raised, the motion passed.

4. Approval of Minutes of August 19, 2020 as printed in the Reflector: A correction was noted for the search and rescue report. A motion was made by Don, VE1DTR to approve the corrected minutes, seconded by Fraser, VE1WO. Unanimous hands raised. Motion passed.

5. Correspondence: Brian, VA1CC gained access to Station 50, there were returned QSL Bureau envelopes, please update your address with Murray, VE1BB, also bank correspondence was received for treasurer Bill, VA1ALW.

6. President's Report: Brian, VA1CC reported two exams were administered. Leisl Harmon and Olexiy Prokhvatylo both passed with Honours. Both joined the club, welcome! Brian reported that the satellite tower purchased for Station 50 will remain here and not go to Sheet Harbour as had been

previously reported. Zoom boom will be provided for the club's use to replace antennas at Cowie Hill. A work party will be assembled

7. Treasurer's Report:

Bill, VA1ALW

reported the income from the period of August 1 to August 31 was in the amount of \$0.00. Expenses for the same period came to \$0, with a closing balance of \$11,999.60.

membership@halifax-arc.org

is the proper email to send membership payments. A motion was made by Bill, VA1ALW to accept the report. Ray, VE1RAY seconded the motion, unanimous passing of the motion.

8. Station Manager Report: Don, VE1DTR reported that he, Greg, VE1GFX, and Fraser, VE1WO spent a couple of hours at the HARC station going over the RigPi procedure for enrolling members for operation of the remote station. This will be for use by qualified members of HARC. The antenna rotor interface still needs work. An enrollment form will be coming out to members in October.

9. Search and Rescue: Dave VE1AJP gave a history of the Search & Rescue facility location which is adjacent to a rail line. The area across the rail lines is ideal for training purposes due to the wide variety of terrain. He reported that the CNR police were enforcing the No Trespass rule on a few members of the public who had attempted to cross the tracks to get to the public trail system! S & R got together with the CNR personnel to work out an arrangement so their personnel can continue to cross the tracks at a non-crossing point for training activity.

10. Committee, Event and Special Projects Reports:

1. The Club is looking for two club positions to be filled. They are

At the HARC Annual General Meeting in November we plan, as usual, to elect our executive officers to serve in those positions for the next 12 months.

But first **we need SOMEONE** to be the

Nominating Committee Chair.

Please ask the person you see in the mirror each morning "is that someone me?" If the answer is "Yes" please tell a member of the HARC Executive.

Membership Chair and Safety Officer, Jim Calvesbert, VE1PPA and Pat Kavanaugh, VE1PK are stepping down. Please contact Brian, VA1CC if you are interested in either position. Both fellows will help you with the transition.

2. A Chair person is needed to head up the nomination committee to help in polling members to fill these positions.

3. Bill, VE1MR reported on the Cowie Hill repeater site antennas and feed lines. Some are in need of attention. This includes checking and replacing some of the antennas, feedlines, making sure the feed lines are properly identified, opening up connectors to verify feedline integrity, antenna performance & mechanical clamping to the tower. An antenna, if defective, would be replaced. The antennas are at the 75', 65' & 45' levels approximately. A work plan, safety plan & Covid plan are required and are being prepared by committee for submission to Don Mosher, VE1DRM HRM EOC co-ordinator, for approval. Work, pending approval, can begin when the Zoom boom date is established. A certified Zoom boom operator through HRM is available to provide workers with access to the tower during the work week. Bill, VA1ALW has volunteered to be Site Safety Officer. Fall Safety certification discussion followed along with hoisting rope & block requirements. Covid protection requirements & procedures were discussed. Rescue gear is stored inside the Cowie Hill storage container adjacent to the tower.

(Continued on page 7)

September General Meeting Minutes
(Continued from page 6)

11. Round Table: Jason, VE1PYE made a request for assistance to manage the sale and disposal of the clubs surplus equipment. Please contact him if interested. VE1AI Dick reported that there is no activity at the Maritime Museum this year due to the Covid situation. Dick inquired about the availability of UHF gear in the St Margaret's Bay area to possibly link with the Dartmouth UHF repeater, VE1DAR, 444.600. DX chasers use the UHF band to communicate DX activity during the chase! Discussion followed, CDN repeater site suggested, echo link via PSR. Gear is available, a multi-coupler is needed. Lots of options with more discussion to follow.

Terry, VE1TRB, told of the upcoming CFARS, Canadian Forces Affiliate Radio System, exercise using Winlink via a Vara modem, a back up communication system for Canadian Forces. Both Amateur and Military frequencies are proposed. He will prepare an article for a future issue of the Reflector. Bill, VA1ALW reported that the RAC AGM is online on Sept 20. Peter VE1PS reported that the cross-band voice repeater on the ISS SAT station is back on the air.

12. Motion for Adjournment: Bill, VE1MR, motioning to adjourn, meeting; adjourned approx 2100 hrs.

Respectfully submitted by Roger Stein, VA1RST, HARC Secretary

**So far 2020 is like
looking both ways
before crossing the
street and then
getting hit by an
airplane.**

Needed

The H.A.R.C. needs to fill the following position.

Membership Chair - as incumbent Jim Calvesbert, VE1PPA, wants to step down.

Please contact President Brian if you are interested in either position. Jim will help you with the transition.

On Saturday **October 3, 2020** I hosted a **mini work party** at my place to check out some of the stuff we will need to have on hand for the tower work at Cowie Hill. On fairly short notice I invited about 8 people hoping to get at least 3. Of course several people already had plans and would not be able to make it. At 2 PM George, VE1CAW arrived with Fraser, VE1WO and John, VE1BIR. A bit later Brian, VA1CC also arrived. We discussed what I wanted to accomplish and what I hoped to accomplish if time permitted.

We had previously tested all the antennas on the Cowie Hill tower and had computer displays. The VHF 4 pole antenna showed some problems but we were unsure if it was the antenna itself or the transmission line or possibly a loose connector or water in the connectors up the tower. Of course the Diamond X500 dual band antenna was broken and the transmission line could be seen hanging down the tower so we could not test anything there but knew we would need to replace the antenna and the antenna tail to the transmission line. Most of the other antenna showed good or decent except for the 50 MHz single loop antenna which showed a poor SWR but could not determine if it was the antenna, transmission line or connectors. There were also 2 lower UHF antennas that had the transmission lines coiled up at the base of the tower, both showed poor SWR but we suspected the transmission lines that looked as though water had gotten into the cables, Those cables would probably need to be replaced..

The scope of the work that needed to be done was to test and verify the antennas that might be needed for replacing existing antennas at Cowie Hill as well as runs of transmission lines that also might be needed for replacement of any that were found bad at Cowie Hill.

I had already put connectors on 2 runs of 1/2" Heliac and using the club's antenna analyser we proceeded to test the runs using a 50 ohm load on the other end of the cables. 2 more shorter runs that already had connectors were also tested. A short (15 foot) piece of 1/2" flexible Heliac was tested for use as the tail on the Diamond X500 dual band antenna. All 5 cables tested good. Then we proceeded to test a replacement Diamond X500 dual band antenna that would be replacing the broken Diamond X500 dual band antenna at Cowie Hill. We also tested a Sinclair 210C4 (VHF 4 pole antenna) that might be needed to replace the existing Sinclair 210C4 at Cowie Hill if that was found bad. Both antennas we tested were good. We then tested a Sinclair 50 MHz single loop antenna in case the existing 50 MHz loop antenna at Cowie Hill needed replacement. Since we still had some time available we tested several UHF yagis, 3 element, 6 element and 7 element, all were found to be good. We also tested a 310C antenna (single pole UHF loop), also found good. During testing we documented and tagged all cables and antennas.

Now came the hard part, reeling off 165 feet of 7/8" Heliac. We inspected a couple of coils and chose the longest one hoping to get one piece 165 feet

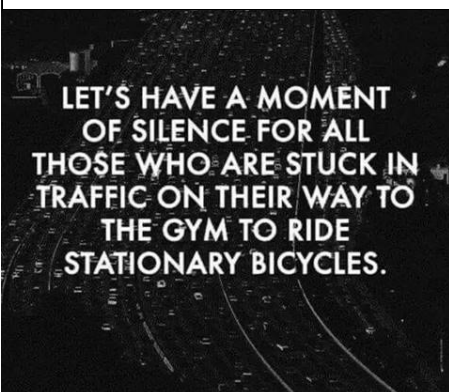
(Continued on page 8)

Oct. 3 Mini Work Party (Continued from page 7)

and another of at least 140 feet. The coil was difficult to handle and 4 people to roll it out while I measured it using a 100 foot tape - marking the 100 foot point and continuing for another 65 feet. I marked the length and we cut it off with a hacksaw. We carefully looked at the markings on the cable and were able to read the meter numbers and determined that both pieces were nearly equal, that is 165 feet and 164 feet, perfect for use at Cowie Hill. We coiled both pieces up and found we were out of time having accomplished everything that needed to be done and almost all of what I had hoped to accomplish. The only remaining task was to put connectors on both of the pieces of 7/8" Heliac. I will try to get that done over the next week or so and can test those pieces.

Many thanks to George, VE1CAW, Fraser, VE1WO, John, VE1BIR and Brian, VA1CC who made this all possible. They were very willing and able accomplices. Also thanks to those who had earlier said they would help if available. While more than 4 helpers may have gotten in each others way for the mini work party, I hope we can still count on others to be available when the work is going on at Cowie Hill. We will need several others when doing the work at Cowie Hill. That date has not yet been determined but hopefully that will happen soon.

Thanks and 73 - Bill, VE1MR



Chinese Amateur Radio Satellite Launches Delayed

From the ARRL website 09/28/2020

CAMSAT says the CAS-7A launch has been postponed til May, and CAS-5A til June, 2020.

"Because of COVID-19, many things have been delayed," CAMSAT's Alan Kung, BA1DU, told ARRL. He said an announcement would be made closer to the announced launches.

CAMSAT said last spring that CAS-7A would launch in mid-September; the launch has been postponed multiple times since first announced. CAS-5A was predicted to launch in October. Both satellites will carry two transponders that include HF, in a configuration similar to that of the Russian RS satellites decades ago.

CAS-7A will be placed in a sun-synchronous orbit with an inclination of 98° at 500 kilometers above Earth. The transponders will have a bandwidth of 30 kHz. According to the IARU amateur satellite frequency coordination page, the HF/HF linear transponder will uplink on 15 meters — 21.245–21.275 MHz, and downlink on 10 meters — 29.435–21.465 MHz. A CW beacon will transmit on 29.425 MHz. The HF/UHF transponder will uplink at 21.3125 – 21.3275 MHz, and downlink at 435.3575 – 435.3725 MHz. A CW beacon for that transponder will transmit on 435.430 MHz.

The CAS-5A nanosatellite, with a 6U form factor, carries two HF transponders and two VHF/UHF transponders. While in orbit, it will deploy the tiny CAS-5B femtosatellite, which will weigh just 0.5 kilogram.

The array of CAS-5A linear transponders will include HF/HF, HF/UHF, and VHF/UHF with 30-kHz passbands (except 15 kHz for the HF/UHF transponder).

CAS-5A will include CW telemetry beacons on HF & UHF. The HF CW beacon will be at 29.465 MHz, and a UHF telemetry beacon will be at 435.57 MHz. Other beacons include the HF/HF transponder beacon at 29.490 MHz; the HF/UHF transponder beacon at 435.505 MHz, and the VHF/UHF transponder beacon at 435.540 MHz. Telemetry will be transmitted at 435.650 MHz. The V/U linear transponder will uplink at 145.820 MHz; the V/U FM transponder will uplink at 145.925 MHz. Terrestrial stations will access the transponders at 21.385 – 21.415 MHz.

HARC has a stock of **Anderson Powerpole connectors** for sale at \$15 for a pack of 10, this works out to \$1.50 each (for a red and black connector and 2 contacts for one complete end). To make a complete mating pair will require 2 sets of connectors. If you have not already converted all your gear to Powerpole connectors you should consider doing so. Installation instructions are included and also in the Callbook.

The Phonetic Alphabet

A	Alpha
B	Bravo
C	Charley
D	Delta
E	Echo
F	Foxtrot
G	Golf
H	Hotel
I	India
J	Juliett
K	Kilo
L	Lima
M	Mike
N	November
O	Oscar
P	Papa
Q	Quebec
R	Romeo
S	Sierra
T	Tango
U	Uniform
V	Victor
W	Whisky
X	X-ray
Y	Yankee
Z	Zulu

www.rac.ca
RAC's web site
has URLs to
swap shops
all over the
country

From Murphy's Lesser Known Laws

*Light travels
faster than
sound. This is
why some peo-
ple appear
bright until you
hear them
speak.*



FCC to withdraw US Amateur privileges in the 9 cm Microwave Band; Canadian Amateur privileges will remain unchanged

<https://www.rac.ca/fcc-to-withdraw-us-amateur-privileges-in-the-9-cm-microwave-band/>

The Federal Communications Commission (FCC) has recently made changes affecting the Amateur Radio Service in the United States and this has also raised concerns among Canadian Amateurs.

The FCC has ruled that it will withdraw US Amateur privileges at 3300-3500 MHz (the 9 cm Microwave band) in order to make the band available to 5G Mobile and Internet Service Providers. The dates when this is to take final effect have not yet been decided.

This FCC action does not directly affect Canadian Amateurs who continue to have a secondary allocation on this band.

In June 2019, our regulator Innovation, Science and Economic Development Canada (ISED) published "Gazette Notice SLPB-001-19: Decision on Revisions to the 3500 MHz Band to Accommodate Flexible Use and Preliminary Decisions on Changes to the 3800 MHz Band".

In that document ISED announced changes to the primary allocations to the Radiolocation, Fixed and Mobile services at 3450-3500 MHz removing Radiolocation, maintaining the Fixed services (used primarily for rural internet), and adding Mobile to 3450-3475 MHz in line with its policy objective to "foster innovation, investment and the evolution of wireless networks by enabling the development and adoption of 5G technologies". This is the latest step in realigning allocations in this band that began with changes announced in December 2014. At that time, as in the June 2019 announcement, the secondary allocation to Amateur Radio was not changed.

The frequencies on which Amateurs may operate in Canada are listed in Schedule I of "RBR-4 – Standards for the Operation of Radio Stations in the Amateur Radio Service". This Schedule includes the following footnote relating to this band (and many other UHF and microwave bands):

"...transmissions shall not cause interference nor be protected from interference from stations licensed in other services operating in that band..."

Because the 3300-3500 MHz band is listed in Schedule I

of RBR-4 with a reference to the footnote described above, Canadian Amateurs continue to have access to that band on condition that Amateur signals do not cause interference to existing or future licensees in the Radiolocation, Fixed and Mobile services (including 5G service providers), and on the understanding that Amateurs will be given no protection against interference from those services.

As the 5G rollout advances, maintaining compliance with the "no interference, no protection" requirements for secondary services is likely to impose increasingly severe restrictions on the ability of Amateurs to use this band, even as the secondary allocation to the Amateur Service remains in place.

The next World Radiocommunication Conference (WRC-23) in 2023 will include an agenda item to consider worldwide allocations to Mobile internet services in several frequency bands, among them 3300-3400 MHz and 10.0-10.5 GHz. The International Amateur Radio Union (IARU) will be vigorously defending Amateur interests in both of these bands at WRC-23 and RAC representatives in Canadian working groups preparing the Canadian positions for WRC agenda items will be doing likewise.

The American Radio Relay League (ARRL) has issued a news release in response to the FCC announcement. You can find the complete text at the link provided below.

ARRL: FCC Orders Amateur Access to 3.5 GHz Band to "Sunset"

<http://www.arrl.org/news/fcc-orders-amateur-access-to-3-5-ghz-band-to-sunset>

Other links:

FCC Seeks to Facilitate 5G in the 3.45-3.55 GHz Band
<https://www.fcc.gov/document/fcc-seeks-facilitate-5g-345-355-ghz-band-0>

RBR-4 Schedule I:

<https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01226.html#t1>

Gazette notice SLPB-001-19:

<https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11517.html>

Richard Ferch, VE3IAY
RAC Regulatory Affairs Officer

Glenn MacDonell, VE3XRA
RAC President and Chair

Sayings of the Jewish Buddhist

1. If there is no self,
whose arthritis is this?



2. Drink tea and nourish life; with
the first sip, joy; with the second sip,
satisfaction; with the third sip,
peace; with the fourth, a Danish.

3. Wherever you go, there you are.
Your luggage is another story.

4. The journey of a thousand miles
begins with a single Oy.