AUGUST 2020 Volume 9 Issue 8

VE3ERC-LUB

President: Brian VA3DXK
Vice-President: Ted VE3TRQ
Secretary: Tom VE3DXQ
Treasurer: Paul VA3PDC
Trustee: Wes VE3ML
QSL Manager: Tom VE3DXQ
Repeater Trustee: Wes VE3ML
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-L 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.

Point Clark Lighthouse was activated for the Lighthouse and Lightship Weekend. See page 3.

THE PREZ SEZ!

This club is Radio-ACTIVE

President's Update for August 2020

Our club was hoping to resume our monthly club meetings at the Elmira Fire Station on the 4th Wednesday of each month beginning September 23rd.

At this time, however, the Executive has decided to forgo meeting in person and continue with our virtual meetings. Use of the training room at the fire hall involves time consuming and stringent Covid-19 protocol, and the comfort level of members meeting in person still remains a concern. So for now, we are opting to enjoy each others' company virtually and mask free from the comfort of our QTHs.

Should we wish at some point in the future to resume meetings in person it would involve mandatory temperature checks upon entering, disinfecting of hands, and mandatory mask wearing throughout the meeting. At the conclusion of the meeting our club must disinfect the room, wiping down tables, chair backs, light switches, doorknobs and washroom faucets/ handles etc.

Point Clark Lighthouse remained closed for International Lighthouse and Lightship Weekend this August and unfortunately the township was unable to make an exception for our club to allow access. The lighthouse grounds and washrooms across the street in the park were open. Several of the Ash trees on site that we used to hold up our wire antennas had to be cut down this year due to disease. In true 'field day' fashion, several adventurous club individuals choose to independently activate the lighthouse under the club callsign. Further info on this activity follows within this newsletter.

Enjoy, take care, and have fun over the airwaves!

Brian
VA3DXK
President, Elmira Radio Club

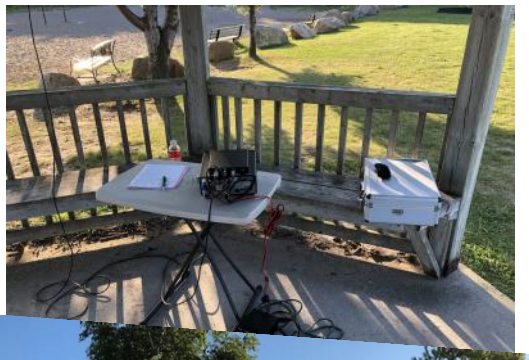
Point Clark

Lighthouse Weekend Activated

August 22, 2020

Paul VA3PDC

Kirk VA3KXS



Paul VA3PDC set up at 8 am on Saturday morning until noon and then Kirk VA3KXS resumed for the afternoon. Paul wrote:

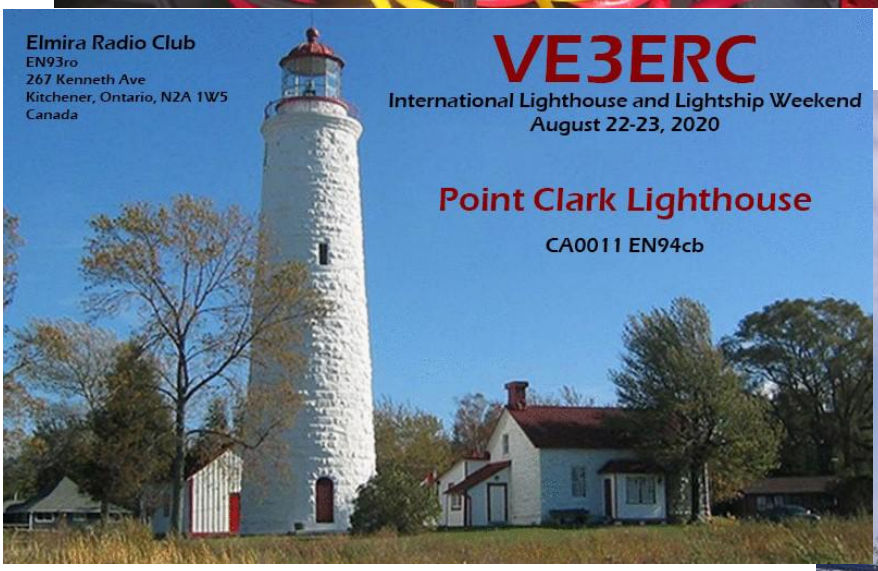
Hi Bob,
It was great that you and Bonnie came to Point Clark on the weekend.

I've attached my pictures, I think they are self explanatory.
I made a total of 34 contacts under the club call for the ILLW on Saturday: nine on 80 meters and the balance on 40….
A couple of the pictures almost look like some place tropical...
I also had two POTA activations, one from Point Farms Provincial Park on August 20th with 39 contacts and activated the Point Clark Historical Park with 68 contacts on Friday August 21st.

I borrowed power from the small marina at Point Clark for both days.
Weather was stellar all three days, it's a shame Covid 19 interferes with the club's participation in this event….

Take care,
Paul VA3PDC

Al VE3AUS



Kirk had a very impressive set–up for portable operation that was amazingly compact. Everything could probably have been packed into one backpack. Kirk wrote:

Combined, Paul & I managed to make 94 ILLW contacts on the weekend. I was only there for about an hour after you left and managed to make a few more contacts.

All contacts have been uploaded to eQSL along with a new eQSL card (attached). 12 people have already confirmed and sent eQSL cards in return. I know at least one person is planning to mail a QSL card.

I was thinking of showing a slide show of the eQSL cards at the start of our next meeting.

I've figured out a way to have static eQSL cards for each of our events, and put together a bit of a powerpoint presentation about it. I'm going to see if Brian has room on the agenda sometime this fall to present it to the group. Kirk VA3KXS

CONTRIBUTIONS TO VE3ERC-CLUB NEWSLETTER

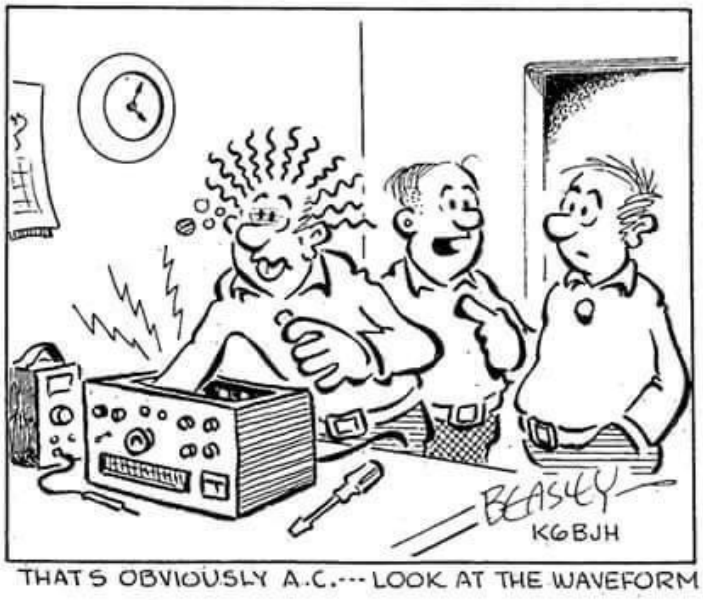
Do you have an article you'd like to submit? Or photos? Do you have any comments you'd like to make?

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 15 - BILL VA3QB

JULY 22 - WES VE3ML

JULY 29 - PAUL VE3PVB

AUGUST 5 - AL VE3DZZ

AUGUST 12 - BRIAN VA3DXK

AUGUST 19 - BOB VE3IXX

AUUST 26 - TED VE3TRQ

SEPTEMBER 2 - AL VA3TET

SEPTEMBER 9 - KIRK VA3KXS

SEPTEMBER 16 - REG VE3RVH

SEPTEMBER 23 - M E E T I N G

SEPTEMBER 30 - FRANK VA3FJM

OCTOBER 7 - TOM VE3DXQ

RAC Bulletin

RAC Band Planning Committee Update:

Proposed Two Metre (2m) Band Plan

As announced in *The Canadian Amateur* magazine, the RAC Band Planning Committee has completed the new proposed 2m band plan.

Radio Amateurs of Canada band planning committees coordinate the development of National Band Plans to provide guidance for the usage of the Canadian Amateur bands. These committees are made up of representatives from all regions of Canada.

The committees prepare interim band plans after consulting with Amateurs across the country. These plans not only take into account the wishes of Canadian Amateurs, but are also coordinated with band usage in other countries through membership in the International Amateur Radio Union (IARU).

The RAC Board of Directors extends thanks to the members of the RAC Band Planning Committee for undertaking the task of reviewing and updating the VHF and UHF band plans over the next year.

A draft of the band plans is provided on the RAC website at the link provided below for final input before it is submitted to the RAC Board of Directors for approval.

Draft plan: https://www.rac.ca/proposed-two-metre-2m-band-plan/

If you have any comments or suggestions please send them to Serge, Bertuzzo, VA3SB, RAC International Affairs Officer, at international@rac.ca**.**

RAC Band Planning Committee
Chair: Al Penney, VO1NO

Frequency	Modes and Possible Uses (please see the Notes provided below)
144.000 – 144.100	EME, Narrow Band Digital, CW, Weak Signal Modes. See Note 1 below. JT65 centred on 144.085 JA Window. See Note 2.
144.100 – 144.180	CW, SSB, Narrow Band Digital, EME, Weak Signal Modes. See Note 1. 144.174 FT8, 144.144/144.150 MSK144 Meteor Scatter, 144.115 – 144.135 Digital EME centred on 144.125 MHz. See Note 2
144.180 – 144.265	CW, SSB, Narrow Band Digital, EME, Weak Signal and other Narrow Band Modes. See Note 1. Other modes with bandwidths less than 3 kHz, including FAX and SSTV. 144.200 SSB and CW Calling Frequency. See Note 3.
144.265 – 144.270	No transmissions – Guard Band to protect Beacon Network.
144.270 – 144.300	Propagation Beacon Network Exclusive. Note that 144.300 is the IARU Region 1 Calling Frequency, and could be used for Trans-Atlantic Attempts.
144.300 – 144.310	No transmissions – Guard Band to protect Beacon Network. Note that 144.300 is the IARU Region 1 Calling Frequency, and could be used for Trans-Atlantic Attempts.
144.310 – 144.500	Wide Band Digital Modes (e.g.: Packet, APRS). See Note 1 and Note 4. 144.340 – National ATV Voice Coordination Frequency FM. 144.390 – National APRS Frequency. See Note 5. 144.489 – National WSPR Frequency.
144.500 – 144.900	FM / Digital / Linear Repeater Inputs. See Note 6.
144.900 – 145.100	Wide Band Digital. See Note 1 and Note 7.
145.100 – 145.500	FM / Digital / Linear Repeater Outputs. See Note 6.
145.500 – 145.590	ARISS Links – Space Communication Exclusive.
145.590 – 145.790	Wide Band Digital Modes. See Note 1 and Note 8.

145.790 – 145.800	No transmissions. Guard Band to protect Satellite Sub-band.
145.800 – 146.000	Amateur Satellite Uplink / Downlink and ARISS Exclusive.
146.000 – 146.010	No transmissions. Guard Band to protect Satellite Sub-band.
146.010 – 146.370	FM / Digital / Linear Repeater Inputs. See Note 6.
146.400 – 146.595	FM Simplex. See Notes 9 and 10. 146.520 – National FM Calling Frequency. See Note 3.
146.610 – 147.390	FM / Digital / Linear Repeater Outputs. See Note 6.
147.420 – 147.570	FM Simplex and Digital Hotspots using a 30 kHz raster. See Note 11 and Note 12. Note that Digital channels are interwoven between these FM Simplex channels.
147.435 – 147.585	Wide Band Digital. See Note 1 and Note 13. Note that these Digital channels are interwoven between the FM Simplex channels at 147.420 – 147.570.
147.600 – 147.990	FM / Digital / Linear Repeater inputs. See Note 6.

Notes for Proposed Two Metre (2m) Band Plan:
Note 1: Narrow Band Digital 2m modes are those with bandwidths of 3 kHz or less; for example, WSJT modes. Wide Band Digital 2m modes are those with bandwidths greater than 3 kHz but less than 30 kHz; for example, Packet.
Note 2: Consult with the WSJT community regarding frequencies for EME and Terrestrial operations as these change with modulation schemes.
Note 3: Once contact is established on a Calling Frequency, operators should QSY to another frequency. For 144.200 MHz it is generally down for CW, and up for SSB. For 146.520 MHz FM, it is to any other clear FM simplex channel.
Note 4: Seven frequencies on a 20 kHz channel raster: 144.37, 144.39, 144.41, 144.43, 144.45, 144.47 and 144.49. Occupancy is to occur *only* when available Digital frequencies within the sub-bands 144.9 – 145.1 MHz and 145.59 – 145.79 MHz are exhausted. Consult with your local digital coordination body regarding maximum ERP, Bandwidth and coverage area within this sub-band. Operation may occur on 144.31 MHz provided operating bandwidth and ERP do *not* cause harmful interference within the propagation beacon network sub-band.
Note 5: Consult with your local coordination body.
Note 6: Repeaters include FM, Digital (DMR, Fusion, DSTAR and related) and linear modes. Consult with your local coordination body for frequencies and modulation scheme allocations specific to your area, if available. Hotspots are not to be used on Repeater frequencies.
Note 7: Ten frequencies on a 20 kHz channel raster: 144.91, 144.93, 144.95, 144.97, 144.99, 145.01, 145.03, 145.05, 145.07 and 145.09. Consult with your local coordination body.
Note 8: Eleven frequencies on a 20 kHz channel raster:
145.59, 145.61, 145.63, 145.65, 145.67, 145.69, 145.71, 145.73, 145.75, 145.77 and 145.79 MHz. Consult with your local coordination body.
Note 9: The frequencies 146.40, 146.43 and 146.46 MHz continue to be used as repeater inputs in some areas. Consult with your local coordination body.
Note 10: Thirteen channels on a 15 kHz channel raster: 146.415, 146.430, 146.445, 146.460, 146.475, 146.490, 146.505, 146.520, 146.535, 146.550, 146.565, 146.580 and 146.595 MHz.
Note 11: Six channels on a 30 kHz channel raster, 147.420, 147.450, 147.480, 147.510, 147.540, 147.570 MHz.

Note 12: The use of Digital Hotspots is not recommended on 2m. If they are used however, maximum power output should not exceed 500 mW. Gain antennas should not be used. The control operator must monitor the Hotspot whenever it is operating.
Note 13: Six channels on a 30 kHz channel raster: 147.435, 147.465, 147.495, 147.525, 147.555 and 147.585 MHz. Consult your local coordination body for available frequencies, ERP and bandwidth.
Serge, Bertuzzo, VA3SB
RAC International Affairs Officer
international@rac.ca

Correspondence

Thanks to Mike for finding and sending this humorous dittie written by Adrian VE7NZ:

CANADA OFFERS NEW CLASS OF AMATEUR RADIO LICENSE SEPT 1 2020

Canadian Amateur Radio operators will be excited to hear that a new class of license will be available starting September 1, 2020: the Quiet Radio Transmitter or "QRT" license. To qualify for this license you need to simply agree to never transmit.

A 2019 study found that 73% of hams never transmit. Most interestingly, the study found a third of those not only don't want to transmit, but object to others transmitting, preferring to have

silence for hours, if not days on end. As one survey respondent said, "We invested over $1000 in equipment to setup our club's repeater and yet people think they can just use it as if this were a hobby. It is really bothersome to hear someone looking for a QSO. It only encourages others to join in and, before you know it, everyone's on the air disturbing the peace and quiet."

Responding to the survey's results, commercial interests proposed the QRT license be created. During the consultation period no-one from the ham community spoke up, confirming that the license was a perfect match to the needs of many hams. One exception was a special interest group who requested an endorsement be created allowing for frequent short transmissions, such as kerchunking of repeaters (provided you never say your call sign) or dialing DTMF to turn off a link.

A second endorsement was also agreed to after a letter was received from a meeting held at Tim Hortons requesting that some QRT licensees should be able to say, "That's not real ham radio" whenever someone is talking about new technology.

A third endorsement, the "stuck microphone with road noise" was not adopted as this was agreed to be a form of lengthy transmission, something that was in opposition to the spirit of the new license.

Hearing the news, a local Amateur instructor and examiner said, "This really is a game changer. The QRT license can be earned in a single day, except for the kerchunking endorsement which can take an extra day to practice using a test repeater we have setup in the classroom. Mind you, some people think the extra day is worth it as you can earn a new 'Kerchunked All Repeaters' award in as little as 24 hours using just a simple handheld radio."

Commercial interests across the country are welcoming the arrival of the QRT license. Speaking at a spectrum auction, an industry representative said, "This really speeds up the process of taking back our VHF and UHF spectrum from the Ham community. As people see the benefits of a QRT license such as no antennas, longer battery life, and no RFI, they will quickly see that it makes sense to hand over the spectrum to us so more kids can send emoticons to each other instead of wasting their time experimenting with electronics."

Is your license a QRT license? Perhaps consider upgrading.

de VE7NZ Adrian

Tony VE3DWI wrote: Hi all,

This is a fascinating story about lightning protection for the Statue of Liberty. I got it off Facebook on a ham group so I'm assuming that there is no copyright issues to deal with. Enjoy a good read.

73, Tony VE3DWI.

Throwback Thursday: Protecting the Statue of Liberty

by Mike Violette | Jul 30, 2020 | Throwback Thursday

Lightning and Miss Liberty

Mike Violette

One hundred million volts, more or less. That is the potential that is developed during thunderstorms, as roiling masses of air and water and ice molecules swap electrons. Charge separation, caused by the friction in the air, related to the mechanism of static built up by rubbing balloon on cat, fills the atmosphere with pockets of ions–positive and negative. As the voltages build, the normally-insulating air molecules stress and disassociate and filaments of current crackle across the sky, releasing mega-joules of energy in each stroke. The supersonic expansion of the ionized air along the stroke path, boiled to a plasma, cracks in a sonic boom, rolling across the sky as thunder.

Upwelling currents of air lift charged particles, lofting them thousands of meters into the sky. Positively-charged ions congregate in the ground below, rushing to equalize the negative charges floating in the wind-whipped sky. At some point, the air fractures and an ionized channel opens between the Earth and Sky; a "stepped leader"—an opening parry—bridges the opposite charges with a flow of a few tens of amperes. Once the ionized channel is open, tens of thousands of amps or more rush to equalize the charge, dumping buckets of coulombs in the spasm, which may be repeated several times until all the charge is dissipated. The equalization temporarily sates the uneven voltage distribution, until further kinetic activity in the unstable air mass of the thunderstorm shakes loose another gazillion electrons and the process starts anew.

As there is no known method of preventing a lightning strike, management of lightning effects–shock, fire, structural damage–depends on understanding this key mechanism of charge equalization and the flow of currents during the few seconds of a lightning event. As all know, the best thing to do during a thunderstorm is to get out of the open and indoors. Who would know better about the hazards of standing out in the open during a thunderstorm with arm in the air than the Statue of Liberty, the gift of friendship from the people of France?

Standing tall in New York Harbor since 1886, the Statue of Liberty rises to a height of just over 300 feet–pedestal and all–her famous torch pointing East, welcoming the immigrants that make of the backbone of the United States. The half-million-pound copper and steel structure reportedly gets struck by lightning over 600 times in a year. During the restoration of 1984-1986, my father Norm Violette and I were involved in assessing the lightning protection of the famous monument. We had the opportunity to climb and crawl and inspect and

make measurements and an assessment of her condition. Reporting to the general contractor, we composed a report and analysis of the lightning protection elements and made recommendations.

The key goal of the study was to understand how the statute has been affected by the six thousand or so lightning strikes over her (then) 100-year history as well as to look at the design of the protection system to safeguard people and the facility itself. This article is a summary of some of those findings.

Surface Inspection

First, we did a visual inspection of the entire structure taking the elevator to various points along the height of the statue. (The scaffolding was an engineering marvel in itself, rising from the pedestal to the torch without contacting the statue anywhere along its height.) The statue is made of hand-hammered sheets of copper—the thickness of 2 pennies.

"Attachment points"—where the lightning contacts the skin of the statue—were observed to be all along the height of the statue, on her shoulders and skirt and even on the tablet cradled in her left arm. Why would lightning strike at less-than-the-highest point? During a strike, lightning travels in short intervals of 50 to 100 meters or so, giving its characteristic jagged appearance. That means that, for tall structures, the tallest point may not be the most oft-struck. A mass of charge can build up in any direction and a lightning bolt may find its path to ground anywhere along the rise of a "tall" structure.

We found many quarter-sized abrasions on the surface of the statue, with only a small handful of actual punctures in the skin. The scorch-marks on the patina of the statue (the copper compounds that give the statue its characteristic aqua color) were thin and black and spattered. The patina is a fine insulator and the lightning currents punch through to the inner mass of conductor. Many of the scorch marks were weathered-over and fading and it was straightforward to guess which ones were "fresh".

It was not a stretch to conclude that the skin of the Statue protects her just fine from lightning discharges. Our main focus was on what happens after the Statue gets hit.

Grounding and Bonding

As related in the short phenomenology introduction, the key to coping with a lightning strike is to equalize all charges as efficiently as possible. This is where Mother Earth comes in (in a cloud to ground strike, that is). It is important to have a low impedance path for the lightning currents to flow. Thick, wide short and direct conductors are the best, so the skin of the statue is ideal: monolithic plates of solid copper. The plates ride on Teflon-coated stainless-steel bars (the "armature) that was completely rebuilt during the reconstruction. The old system of support was of thick iron bars, hand-formed to match the curvature of the copper skin. During the restoration, each of these was removed, a drawing made and the part re-fitted with stainless steel.

Thus, the bulk of the statue proper is an excellent conductor and the flow of charge flows outward from the point of attachment. The impedance of the copper sheets is extremely low. We took a look under her skirt, so to speak, where the statue stands on her concrete pedestal.

We found four rods of solid copper, about 5/8" in diameter. They are bent to follow the curve of the drapes of her skirt and soldered for about 1 meter or so along the underside of the feet, placed approximately in each corner of the statue. At that point, the down conductors disappear into the top of the pedestal, which is a huge monolithic structure, composed of discrete 12" pours of concrete, stacked to a height of 300 feet.

To reach Mother Earth, the down-conductors connect to an unknown grounding structure. It is posited that a ring of copper was laid around the base during construction of the pedestal, but many of the drawings for the Statue disappeared during a fire at the turn of the century. In order to assess the condition of the grounding of the down-conductors, it was necessary to perform a ground resistance measurement.

Technical Stuff

The standard method for measuring ground resistance is to use the "fall of potential" method. To make this measurement, a three or four probe instrument (sometimes generically referred to as a "Megger") is used to inject current into the ground and a voltmeter measures the induced potential. The resistance is inferred from Ohm's law. We used this method to check the grounding resistance of the Statue earth electrode system as well as continuity of the down-conductors connected to the shell of the Statue.

The three-terminal fall of potential method is shown in Figure 1 (usually AC) current is injected between current electrodes E (the structure under test) and C, the current injection point. The voltage probe, P, measures the resultant voltage. Every grounding system has a "theoretical" ground resistance, which is the resistance between the ground system and infinitely-distant electrode. In practice a 30 to 50 meter spacing is sufficient, although it depends on the extent of the earth electrode system being measured. Figure 2 shows the behavior of the grounding resistance versus electrode spacing.

An AC current is used because in the vicinity of metallic structures, there are often galvanic currents that flow because of the cathode/anode behavior of buried metals (two dissimilar metals buried in ground act like a giant battery, essentially. These currents can incorrectly bias the measurements if a DC-based measurement is made.)

We found that the earth resistance was within acceptable levels—a few ohms. We also ran checks of the down-conductors using the same instrumentation. One out of the four copper cables showed a discontinuity, probably caused by a shift in the concrete; it was not possible to tell. Instead of trying to remedy the existing down-conductor, we specified the addition of a fourth conductor, using a stranded copper cable of the same diameter as the original. We ran the new down-conductor in an electrical chase, bonding the cable with the metal conduit at intervals of 10 meters or so.

A number of new metallic structures were installed in the pedestal, including staircases, structural equipment, HVAC, etc. These large metal objects, some stretching the several stories from the ground to the statue's skirt, were incorporated into the lightning protection design.

During a lightning event, the current flowing to ground induces a potential due to the LdI/dt, where L is the self-inductance of the conductor and dI/dt on the order of 10,000+ Amperes per microsecond (Figure 3). The instantaneous voltage may "flash over" to nearby grounded objects due to the instantaneous potential difference.

Hence, we specified that all metallic structures be connected to the lightning protection down conductors at intervals of 10 meters. The benefits are several: in addition to reducing the likelihood of flashover, the net of the metal structures lowers the overall grounding impedance of the down-conductor system.

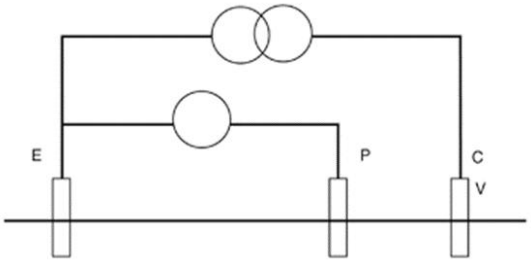


Figure 1

Figure 2

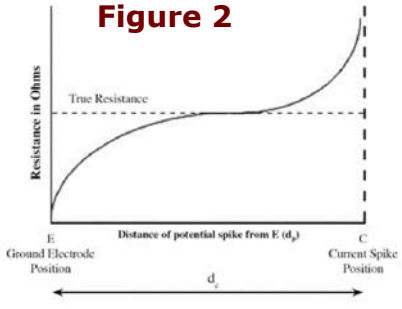
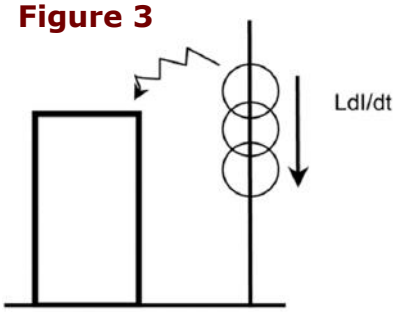


Figure 3

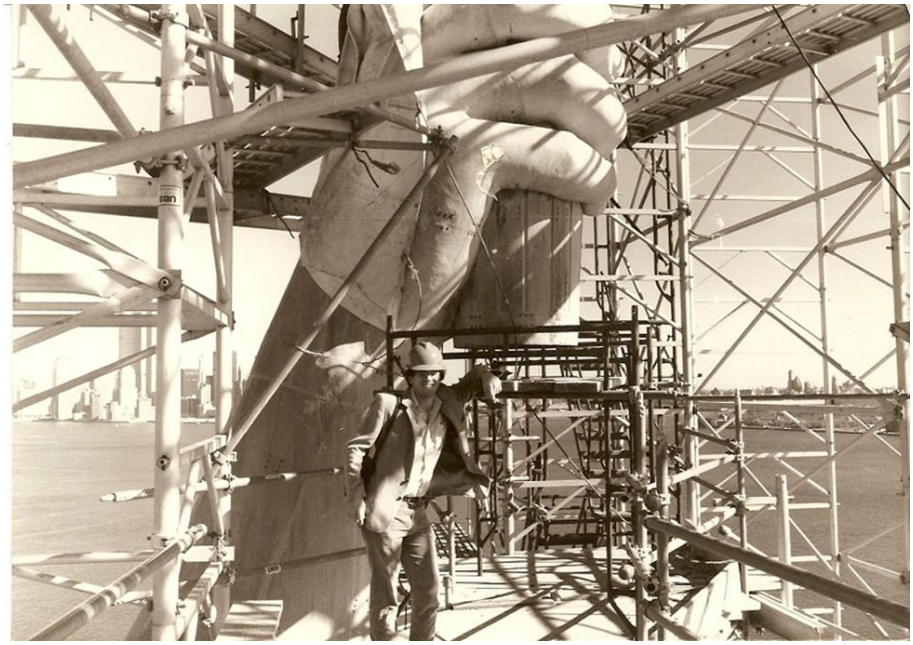


· **Torch**

The torch was rebuilt by a band of metal artisans from France, in the true spirit of the original collaboration. The original torch was pretty messed up, having been modified in the early 1900s by Gutzom Bordlum (he of Mount Rushmore fame) who cut away much of the copper to install 250 panes of tinted glass. The idea was to light the structure from within. This compromised the water-tightness of the torch and over the years the elements leaked into the structure contributing to the deterioration.

The top of the torch was removed and hauled to Earth to be rebuilt at a workshop on site. A new torch was constructed from essentially the hilt upwards and covered with 24 karat gold leaf. The old torch rests in the visitor's center. One of the concerns that the architects had was the preservation of the gold leaf over time. The gold leaf an excellent conductor, of course, was at the highest part of the Statute. It would undoubtedly absorb dozens of strikes a year. We suggested a pair of lightning rods to be installed at each end of the torch. The architects bristled and, in the end, aesthetics prevailed and no protection was installed.

Working on the Statue



The site visits that we took to New York Harbor are memorable. A small fleet of charted boats took workers to Liberty Island in shifts, leaving from Manhattan, Staten Island and New Jersey. From the nose of the Statue the Twin Towers could be seen dominating the skyline of lower Manhattan. Liberty Island was closed to the public and we got a first-hand lesson in New York City labor practices. The project employed workers in every industry: iron fitters, painters, laborers, longshoremen and carpenters and there was a certain amount of reverence about the site but sometimes daily realities caught up with workers. The Statue was accessed by an elevator that was integrated into the scaffolding. On one ride up the elevator, our operator—a grizzled union electrician sipping a cold beer (well, it was after 3 o'clock)—told us that the project management put up signs to tell workers not to relieve themselves on the Statue because this was causing its own "patina."

I haven't returned to visit the Statue proper in these many years, but each time I visit New York City, I tried to catch a glimpse of "Liberty Enlightening the World." It was an interesting and exciting project and much of the anecdotal information above was often related with enthusiasm—and a chuckle—by Dad, who loved lightning phenomenology and lightning protection as much as anyone I know and enjoyed telling people about our small contribution to an iconic monument to freedom.

Statue Fun Facts

- The sculpture was designed by Frédéric-Auguste Bartholdi, who was fascinated by oversized monuments and traveled to Egypt to tour the Sphinx and other grand monuments.
- The structure of the statue was designed by Gustave Eiffel, of Eiffel Tower Fame.
- The Statue was constructed at the workshops of Gadget, Gauhier, & Cie on the Rue de Chazelles in Paris. It was fully assembled in the courtyard and rose over the Parisian suburbs until it was disassembled, packed up and shipped to NY.

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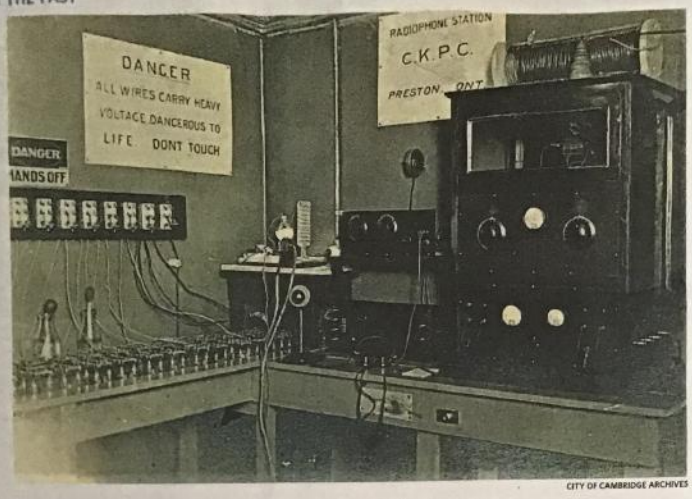
- In 1916 German Saboteurs allegedly blew up a munitions storage area due east of the Statue in Black Tom in New Jersey. The shock wave damaged the arm supports and the torch, which previously was open for visitors (via a ladder inside the arm) was closed.
- During the restoration, it was determined that the arm and head were misaligned during assembly in New York Harbor. The decision was made to build in reinforcement, rather that try to correct the errors as the main mission was preservation, not restoration. The misalignments caused structural weaknesses that compromised Eiffel's original design.

First published in InCompliance Magazine September 1, 2010

Correspondence

Thanks to Reg VE3RVH for sending the newspaper clipping that documented the first AM radio station in Waterloo Region. CKPC was first licenced to Wallace Russ, Charles Bonner and Ron Mead (all wireless experimenters) in 1923 and was set up in the living room of the Russ family home in Preston, Ontario. It was eventually bought out and in 1933 was moved to Brantford. During the 20's it was the only radio station in the Waterloo Region.

> FLASH FROM THE PAST



CKPC hit the airwaves in 1923, broadcasting from a living room in Preston. The station moved to Brantford after a decade.

CITY OF CAMBRIDGE ARCHIVES

Brantford radio station came to life in Preston house

RYCH MILLS
SPECIAL TO THE RECORD

"Mrs. Russ must have been a woman of infinite patience. (Her) family living room ... was now a broadcasting studio, with strangers wandering in and out to do their voluntary bit over the air."

That's Clara Bernhardt writing in the 1969 Waterloo Historical Society volume about the birth of radio station CKPC on Russ Street in Preston. Dial twisters recognize those calls as Brantford's longtime AM station but we're focusing on 1923-1933 when the PC letters actually meant "Preston Canada."

Wallace Russ and friends Charles Bonner and Ron Mead were early wireless experimenters in Waterloo County. They put together a receiving set and, perhaps inadvertently, also discovered they were broadcasting their voices. Russ purchased a five-watt, federal Department of Marine broadcasting license, the first to such a small community — Preston had just 5,500 people.

Russ began playing records then invited pianists and singers, even choirs to drop by. After four years of hurrying home from his bookkeeper's job at Pattinson's Woollen Mill to organize a broadcast for that evening, Russ was worn out.

Enter Cyrus Dolph, one of Preston's larger-than-life notables. Dolph is in the Cambridge Hall of Fame and his resumé is well worth reading. Born in Breslau, he was educated at Riverbank School and Galt Collegiate before becoming one of Preston's most successful business and civic leaders. Intrigued by the new technology of radio broadcasting, Dolph quickly accepted when approached by Russ to take over CKPC. Undoubtedly making Adeline Russ happy, it was now the Dolph home at 268 Guelph St. (later renamed Dolph Street) that became a studio.

Dolph's magnificent house could easily accommodate the growing need for studio space and his large sunroom became broadcast central. With his financial strength and a creative mind, Dolph's six-year span of operating CKPC was a golden age in the development of Waterloo County radio. The transmitter powered up to 25, then 50 watts at 1010, later 880, kilohertz. Dolph's innovations included numerous remote broadcasts from Preston's churches, arenas, parks and schools. The station boasted many community programming features:

> readings by Preston librarian Jessie L. Beattie;
> baseball play-by-play of the Galt Terriers from Dickson Park;
> fortune-telling by Jane Grey (long before her TV career at CHCH);
> locally produced soap operas and dramas;
> special music programs answering requests by Freeport Sanitorium patients;
> the Parents' Forum, an early write-in and phone-in show;
> live church broadcasts — organ music during the week plus Sunday services;
> the Hurlbut Bird Club with avian stories and bird call imitations;
> local weather broadcasts.
> and the long-running Sunshine Club, organized by announcer Eleanor Braucht. Each week, 40 schoolchildren trooped to the Dolph house for choir singing, recitations and solo songs.

With no stations in nearby Galt and Kitchener-Waterloo through much of the late 1920s, CKPC became the local radio favourite for Waterloo County listeners. Many speakers and musicians, as well as advertisers from surrounding communities, were welcomed at CKPC. In addition to Braucht, who is recognized as one of Canada's first full-time female radio announcers (and who also became the second Mrs. Cyrus Dolph), CKPC had Nairn Moggeridge as chief announcer (later of CBC fame) and John Stauffer as head engineer.

CKPC raised the ire of Preston's newspaper when it began chasing local advertisers. For many years, the *Prestonian* would never mention radio in its columns, believing dollars belonging to it were going instead to CKPC.

In 1933, Dolph was 68 years old and turned the business over to his daughter Florence (from his first marriage) who had married Brantford's J.D. Bucharan. By year's end, CKPC was broadcasting from that city. As the first woman radio station owner in Canada, Florence Bucharan was in charge until 1972 when she sold it to son Richard. It remained in the family until 2009 and is now owned by the Evanov group.

There are very few people alive in 2020 who can recall listening to CKPC during the decade when the letters PC meant Preston, Canada and that small-town station ruled the radio roost in Waterloo County.

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Preston industrialist Cyrus Dolph (seen here in the late 1800s) took over CKPC from Wallace Russ in 1927. He upgraded the equipment, increased the power and turned it into a professional business.

JANET WARREN

Janet Warren wrote about Cyrus Dolph and CKPC in the 1990 Waterloo Historical Society publication. She lived in the old Dolph house and led an unsuccessful campaign to save it from demolition in 1990. That same year she photographed the sun room, which had been CKPC's studio area six decades earlier.

rych mills is a lifelong resident of Kitchener-Waterloo whose interest in the Twin Cities' past has appeared in two local history books and numerous articles for the Waterloo Historical Society annual volume for which he is currently editor.

An URGENT e-mail was received from Gord Maybee VA3WXA. Gord has been the newsletter editor for WEATHER_RADIO_LISTENERS_NEWSLETTER for many years now. It appears that the federal government will be shutting down the weather radio transmitters. Gord wrote the following, asking to - Let's help save Weatheradio Canada:

Hi folks. This is an important message for those who live in Canada or, close to the Canadian border, or if you live in the US and listen to both NWR and Weatheradio Canada via a live stream.

It was announced in the broadcast on Weatheradio Canada WXR's across Canada that the service would be discontinued within 6 months. This had been brought to my attention the day before, when I received an email, informing me of a proposal, to discontinue the operation of a transmitter south and west of Toronto. I had been asked about something similar happening by other people and had thought nothing of it but, now that this affects everyone, it's time to act and make it known, that discontinuing Weatheradio Canada is completely foolish, especially during a pandemic. For those of us who are ham radio operators, we all know how valuable radio communication and broadcasting is, especially if everything else is down, due to the weather and applications only work when internet is available, to keep it going.

I have my own other reasons that it should not be discontinued but, the main one is that this is an issue of public safety, even if only some people know about the service. Also, think of the work that had been done, upgrading software in the past couple of years and this involves going up onto, or into a tower in order to install transmitters and software. When the network is decommissioned, this will have to be done again, throughout Canada and there is a cost to that, as well as the cost of having done all the work before this announcement came down the pike. It's being left incomplete and this is completely short-sighted. That's what some people don't understand, that work has been done but due to the pandemic, work has also been stalled or slowed down immensely. However, taking Weatheradio Canada off the air also costs money and will drive up the debt even further and it's much more prudent and sensible, to keep it going. If the US has NWR, why can't Canada have Weatheradio Canada?

Anyway, please spread the word about this to as many people as you can and if you can, flood social media and MP's, with calls for the network to stay. After all, apps and the alerts we get on our smart phones only work if everything else is humming. Whereas Weatheradio can survive long after cell towers and internet have been taken down. Please, don't let the Federal government of Canada put us all at risk, by discontinuing the service which was started in 1976, while Prime Minister Pierre Trudeau was sitting and now his son wanting to end it? Here is what I posted in my blog yesterday and these are my own reasons for keeping it on the air. I trust that you will help to keep it going, by putting up your own arguments as to why it should stay.

https://weatherradiolistnersnewsletter.wordpress.com/2020/08/27/save-weatheradio-canada/

Gord Maybee VA3WXA,

The Old Reliable and Weatheradio Canada Guru

From the PAST

Can you name these ERC members from Field Day 2003 along with call signs?

Links

Ontars— **www.ontars.com**
Elmira Radio Club— **www.ve3erc.ca**
Trans-Provincial Net - **http://tpn7055.com/**
Radio Amateurs of Canada— **www.rac.ca**
KW Amateur Radio Club - **www.kwarc.org**
Guelph Amateur Radio Club— **www.garc.ca**