



And We Are Back...sort of

September marks the start of a new cycle for the Club but we are still facing challenges posed by the Covid-19 Pandemic. There are no in-person meeting until the schools approve outside groups to use their facilities. So we have decided to keep using the Zoom platform for virtual meetings until things get better. Expect an email with the Zoom details in the next day or two. We used it for an executive meeting last thursday and it worked well.

So welcome back, we all hope that you had an excellent summer.

Memberships are Due

Memberships are again due. The renewal form will be sent with this newsletter. The preferred method is by cheque to our mailing address **1100C Memorial Ave. Suite 184, Thunder Bay, Ontario P7B 4A3**. If you wish to use E-transfer please contact Karl Hamilton VE3RRP at ve3rrp@rac.ca to make arrangements. If you wish to use cash, many of the executive will be at Boston on Arthur, thursdays at 9 pm. Please put payment in an envelope with the form. If you are really stuck, please call an executive member and we will help you out. No matter what arrangement you use PLEASE FILL OUT THE RENEWAL MEMBERSHIP FORM. Otherwise Karl will not be able to track the memberships and he will be sad. Thank you. We really appreciate all of you that take the time to support the LARC. Without your support, club activities would grind to a halt and the repeaters will go off the air.

T's and Hats

All of the T-shirts and hats that were ordered are in but we are just arranging distribution in a covid world. Karl will have them all sorted and packaged in a few days and some of us will start distributing them in various methods. Some will be picked up at Boston, some will be picked up at agreed on locations, and some may be delivered to homes. Brad and Ed have volunteered to help with the distribution, and if you would like to help contact Karl ve3rrp@rac.ca. The more volunteers we get the faster it will go.

Elections

It was recognized that holding elections this year will be problematic so elections will be postponed. The current members of the executive have agreed to stay in their positions until things change. However, you still may nominate someone or yourself for a position at the meeting. There are some board members that wish to step down for health or personal reasons.

Membership Cards

Membership cards will only be sent out on request to Karl.ve3rrp@rac.ca

KARL

Hamilton VE3RRP says HI! to everyone and wished to thank everyone for their co-operation in his role as secretary-treasurer.

New Contest for Portable Stations to Debut October 3rd - 4th.

A new amateur radio contest for portable operators — the Fox Mike Hotel Portable Operations Challenge will debut October 3 – 4. The event is aimed at leveling the competitive playing field between fixed stations and portable stations.

Scoring for the POC, based upon a kilometers-per-watt metric, will be handicapped in favor of the portables. The contest is the brainchild of Frank Howell, K4FMH. Sponsors include National Contest Journal, but the POC will not be an official NCJ or ARRL contest.

According to contest rules, scoring will be calculated using the distance between stations in kilometers divided by power output in watts. Allowable modes include phone, CW, and digital. For the 2020 event, the number of transmitters concurrently in use will be restricted to two. Portable stations may not make use of permanently installed amateur radio equipment or facilities but may use ac power. The exchange is call sign, station class (P or Q), consecutive serial number, and four-character grid square. *via RAC*

LARC SENATE

Robert Hansen VE3RVA
 Dave Kimpton VE3AVS
 Laurie Bridgett VE3BCD
 Terry Stewardson VA3LU
 Ed Baumann VE3SNW

LARC EXECUTIVE

President: Randy Gottfred VA3OJ

VP: Bob Hansen VE3RVA

Treasurer: Karl Hamilton VE3RRP

Secretary: Karl Hamilton VE3RRP

Board Member: Ed Baumann VE3SNW

Board Member: Mark Vaillant VA3MVR

Board Member: Mike Skillen VE3EDX

Board Member: John Plumridge
 VE3FMT

ABOUT US

The Lakehead Amateur Radio Club (LARC) is an incorporated not for profit group of amateur radio operators in the Thunder Bay area that meet for self education, community service and fellowship. . Our postal address is 1100C Memorial Ave. Suite 184, Thunder Bay, Ontario P7B 4A3. This newsletter is published monthly except for July and August by Ed Baumann VE3SNW and questions and submissions may be emailed to hqnewsletter@gmail.com

Amethyst District ARES

Providing emergency communications for Northwestern Ontario

Emergency Coordinators

Atikokan: Warren Paulson, VE3FYN (ARES DEC, Amethyst District)

Sioux Narrows: Woody Linton, VE3JJA

Fort Frances: Rod Davis, VE3RYD (ARES EC, Fort Frances & area)

Kenora: Chris Bigelow, VA3ECO (ARES EC, Kenora & area)

Dryden: Bob Ernewein,, VE3YDN

Thunder Bay: Brad Harris, VE3MXJ (ARES EC, Thunder Bay & area)

Nets and Exercises

We conduct an open weekly HF net on 80 and 40 metres. The purpose of this net is to monitor regional propagation conditions, share information, and practice net procedures.

Time: Wednesdays at 21:30 UTC (4:30 pm EST, 3:30 pm CST)

Frequency: Primary 3.675 MHz LSB, Secondary 7.135 MHz LSB

<http://www.ve3rib.ca/nwoares>

LARC Emergency Coordinator

Brad Harris VE3MXJ

ARES Amethyst District**Emergency Coordinator**

Warren Paulson, VE3FYN

CANWARN

VA3JMS John 767-3631

VE3RRP Karl

Public Service Events

VA3TBA Chris Chadwick

Accredited Examiners

VE3FAL Fred Lesnick 577-0789

flesnick@tbaytel.net

VE3VAI Lori Bedford (807) 630-7688 ve3vai@tbaytel.net

LARC OPEN ACCESS REPEATERS

VE3YQT (Mount Baldy) 147.060 (-600)

VE3TBR (St. Joseph's) 146.820 pl 107.2

VE3BGA (Loch Lomond) 147.390, PL Tone 107

442.075 (+5 MHz) pl 100

144.390 APRS

Lakehead Amateur Radio Club

June, July, August 2020 Treasurers Report

Opening Balance June 1, 2020	<u>\$3,785.66</u>
<u>Income</u>	
August 10 1 membership, 2 shirts, 2 caps	\$115.00
Total Income	<u>\$115.00</u>
<u>Expenses</u>	
June Mallons for caps	\$392.97
June Mallons for T-shirts	\$869.54
August UPS Store for mailbox	\$233.31
S.C. June	\$1.80
S.C August 31	\$0.90
Total Expenses	<u>\$1,498.52</u>
Closing Balance August 31, 2020	<u>\$2,402.14</u>

<u>Trailer Account</u>	
Previous Balance	1228.46
<u>Income</u>	
Interest	\$0.00
Total	\$1,228.46
<u>Expenses</u>	
Total Expenses:	\$0.00
Balance in Trailer Account	<u>\$1,228.46</u>

Term Account

Opening Balance June 01, 2020	\$2,071.13
Interest	\$1.36
Closing Balance August 31, 2020	\$2,072.49

Karl Hamilton VE3RRP
Treasurer

Note:

Due to the Covid-19 pandemic the June meeting was cancelled so there are no minutes.



QSO Today Virtual Ham Expo to become Twice-Yearly Event

The QSO Today Virtual Ham Expo held over the August 8 – 9 weekend appears to have been an unmitigated success, so much so that another virtual event will be held next March.

The second QSO Today Virtual Ham Expo, is scheduled for March 13 – 14, 2021. Those who had registered but did not log into the live event can see it on demand until September 9.

-- arrl news

INTERNATIONAL BEACON PROJECT

The NCDXF, in cooperation with the IARU, constructed and operates a worldwide network of high-frequency radio beacons on 14.100, 18.110, 21.150, 24.930, and 28.200 megaHertz.

These beacons help both amateur and commercial high-frequency radio users assess the current condition of the ionosphere. The entire system is designed, built and operated by volunteers at no cost except for the actual price of hardware components, shipping costs, and so on. more information at

<http://www.ncdxf.org/pages/beacons.html>

-- Radio HF Internet Newsletter

TOKYO HAMFAIR CANCELLED DUE TO COVID-19 CONCERNS

The Tokyo Hamfair, scheduled to open on the 31st of October, has been cancelled by the Japan Amateur Radio League. Crowds at this major international event have run as high in some years as 60,000 attendees from around the world, topping Friedrichshafen in Germany and Dayton Hamvention in Ohio.

The Tokyo Ham Fair has been an annual event since its first staging in 1977.

-- amateur radio newslines

FCC Proposes to Reinstate Amateur Radio Service Fees

Amateur radio licensees would pay a \$50 fee for each amateur radio license application if the FCC adopts rules it proposed this week. Included in the FCC's fee proposal are applications for new licenses, renewal and upgrades to existing licenses, and vanity call sign requests. Excluded are applications for administrative updates, such as changes of address, and annual regulatory fees.

The FCC proposal is contained in a Notice of Proposed Rulemaking (NPRM) in MD Docket 20-270, which was adopted to implement portions of the "Repack Airwaves Yielding Better Access for Users of Modern Services Act" of 2018 — the so-called "Ray Baum's Act."

Researchers predict a surge in cosmic rays

Interplanetary space is about to become a more dangerous place. A new study just published in the research journal Space Weather predicts that galactic cosmic rays will surge in the decades ahead--a result of the sputtering solar cycle. This could limit deep space missions for astronauts to as little as 200 days.

-- full story at Spaceweather.com.

Hurricane Watch Net Protocols

We generally activate whenever a system has achieved hurricane status and is within 300 statute miles of populated landmass or at the request of the forecasters at National Hurricane Center.

Our members are strategically located throughout the US, Canada, Central America, and the Caribbean.

When activated, you will find us on 14.325 MHz (USB) by day and 7.268 MHz (LSB) by night. If propagation dictates, daytime operations will be conducted on both frequencies simultaneously.

Before any net activation, if either frequency is in use, we always ask permission to use them. Additionally, it is our practice of being on the air ahead of the National Hurricane Center Station WX4NHC – for the explicit purpose to establish our net operating frequency, to issue advisory data, and to line up reporting stations. It helps us tremendously to know the operator's locations, names, and weather measuring capabilities in advance of the storm's arrival.

During any Net activation, operations on 7.268.00 MHz will suspend @ 7:30 AM ET to allow the "Waterway Radio and Cruising Club Net – WRCC" to conduct their daily morning Net. If required, due to poor daytime propagation on 14.325.00 MHz, operations on 7.268.00 MHz may be required at the conclusion of the Water Way Net, generally around 8:30 AM ET.

Whenever the Hurricane Watch Net is not active, you can hear the latest information on 14.300.00 MHz (USB). We invite you to monitor the status of all active storms through information presented on our web site.

-- HWN website



FCC Fines HobbyKing Nearly \$3 Million for Marketing Unauthorized Drone Transmitters

The FCC has issued a Forfeiture Order (FO) calling for HobbyKing to pay a fine of \$2,861,128 for marketing drone transmitters that do not comply with FCC rules. An FCC Enforcement Bureau investigation stemmed in part from a 2017 ARRL complaint that HobbyKing was selling drone transmitters that operated on amateur and non-amateur frequencies, in some instances marketing them as amateur radio equipment.

The FCC investigation found that 65 models of devices marketed by HobbyKing should have had FCC certification. HobbyKing has 30 days to pay the fine. If it fails to do so, the matter will be referred to the US Department of Justice for collection.

-- arrl news

Scouting's Jamboree on the Air Set for October 16, 17, and 18

Jamboree on the Air (JOTA) and Jamboree on the Internet (JOTI) will be held this year on October 16, 17, and 18. Register online as an individual or as a group. Jamboree on the Air is the largest Scouting event in the world. In a typical year, more than 1 million Scouts participate in JOTA, with over 11,000 stations operated by 20,000+ young radio amateurs from 150+ countries around the world.

JOTA details are available on the K2BSA website. The website menu will direct users to additional supporting information. K2BSA's Jim Wilson, K5ND, says many locations are already offering virtual radio merit badge classes "and no doubt will be using similar approaches for Jamboree on the Air."

via ARRL

Air Force Research Laboratory Tracks Sporadic E

Researchers at the Air Force Research Laboratory (AFRL) in New Mexico have discovered a new way to track and characterize sporadic E, which occurs when large structures of dense plasma form naturally in the upper atmosphere. These plasma structures, which occur at mid-latitude locations around the world, can affect radio wave propagation in both positive and negative ways. VHF enthusiasts frequently take advantage of sporadic-E propagation (or E-skip) to work stations outside of their local area.

"Previous methods to observe these structures were insufficient for identifying and tracking these structures over large regions," said Ken Obenberger, a research physicist at AFRL. "It would be advantageous to actively identify where these structures are, where they are going, and how dense they are. And we thought we could find a better way."

The new method, developed by Obenberger and collaborators at AFRL and the University of New Mexico, leverages unintentional RF emissions from power lines, and using broadband radio noise, they can map and track dense sporadic-E structures.

"Since power lines are widespread, we can observe sporadic E over a very large region surrounding our observatory, the Long Wavelength Array (LWA), an asset of our collaborators at the University of New Mexico," Obenberger said. "This technique could be used anywhere in the world where there is an electrical grid and an instrument similar to the LWA, and we are lucky because there are not many."

This kind of technology could be of interest to those who rely on HF and VHF frequencies, such as radio amateurs, mariners, broadcasters, and the military.

Radio amateurs have long taken advantage of sporadic E for long-range communication in the VHF bands, such as 6 and 2 meters. Climatology of sporadic E can provide a probability that it will occur, but the actual presence of sporadic E can only be determined through trial-and-error observations.

"This is similar to how meteorologists can predict how likely thunderstorms will occur in the afternoons above New Mexico during monsoon season, but use Doppler radar to identify and track specific thunderstorms as they occur," notes Chris Fallen, KL3WX, one of Obenberger's collaborators at AFRL. "Ken's technique basically provides weather radar for sporadic E, only using radio noise from power lines as the radar transmitter."

Having accurate "now-casting" of sporadic E could prove critical during disaster situations where hams may play a key role in supporting communication of vital information.

"Better understanding will lead to improved design and use of radio systems that mitigate the negative effects and take advantage of the good effects, thereby ensuring a stronger emergency communication network," Obenberger said. "We are interested in sporadic E and the effect it has on radio wave propagation, both good and bad." —

Thanks to Joanne Perkins, Air Force Research Laboratory *via ARRL*

K1USN Radio Club Announces New Weekly Slow-Speed CW Contest

The K1USN Radio Club in Massachusetts is launching a new weekly, hour-long, slow-speed contest, the K1USN SST. The inaugural session will be on Monday, September 14, from 0000 – 0100 UTC (Sunday, September 13, in North American time zones). K1USN trustee Pi Pugh, K1RV, said the decision to embark on sponsorship of a new operating event involved surveying some 2,000 radio amateurs to gauge their enthusiasm for such an event. Pugh said the club worked with a group of CWops members within the club, with the blessing of the CWops CW Academy Advisor Group. CWops is not involved in sponsoring the K1USN SST.

“The survey was sent to all 2,000 recent CW Academy graduates,” Pugh told ARRL. “We sent it using Mailchimp and were able to obtain a detailed breakout on the survey questions, which we have forwarded to the CWA Advisor group.” The 800 who responded indicated an overwhelming need for some sort of slow-speed activity as a follow-up to CW Academy.

“It was a lot of work, but we hope this will prove to be a valuable tool within the CW community,” Pugh said. Although predicated on the desires of the CWA community, Pugh stressed that the weekly activity will be open to all looking to improve their CW skills. It can also provide a more comfortable entry point for those just getting started in CW contesting.

The SST is also for operators who currently participate in regular CWT sessions, but only as search-and-pounce (S&P) operators. “The weekly 20 WPM or slower SSTs can build confidence to find open frequencies and begin calling CQ,” Pugh suggested. Participants are advised to be patient, supportive, and willing to slow down as necessary.

Suggested frequencies are 3.532 – 3.539 on 80 meters; 7.032 – 7.039 MHz on 40 meters, and 14.032 – 14.039 MHz on 20 meters. Stations exchange name and state/province/country.

An N1MM Logger+ User Defined Contest (UDC) file is available.

First Element of ARISS Next-Generation Radio System Installed and Operating on ISS

The initial element of the Amateur Radio on the International Space Station (ARRL) next-generation radio system has been installed onboard the ISS, and amateur radio operations using the new gear are now under way. The first element, dubbed the InterOperable Radio System (IORS), was installed in the ISS Columbus module. The IORS replaces the Ericsson radio system and pack-

et module that were originally certified for spaceflight in mid-2000.

“Finally! It’s been a scramble the last few days with coordination over the weekend and yesterday with astronaut Chris Cassidy, KF5KDR,” ARISS-US Delegate for ARRL Rosalie White, K1STO, said. “But the new ARISS radio system is now installed, set up, and functioning. What a long road we’ve traveled over the past 5 years!”

Initial operation of the new radio system is in FM cross-band repeater mode using an uplink of 145.99 MHz (CTCSS 67 Hz) and a downlink of 437.800 MHz. System activation was first observed at 01:02 UTC on September 2. Special operations will continue to be announced, ARISS said.

The IORS was launched from Kennedy Space Center last March onboard the SpaceX CRS-20 resupply mission. It consists of a special, “space-modified” JVC-Kenwood D710GA transceiver, an ARISS-developed multi-voltage power supply, and interconnecting cables. The design, development, fabrication, testing, and launch of the first IORS was the culmination of a 5-year engineering effort by the ARISS hardware team of volunteers.

ARRISS says the system “will enable new, exciting capabilities for ham radio operators, students, and the general public.” Capabilities include a higher-power radio, voice repeater, digital packet radio (APRS) capabilities, and a Kenwood VC-H1 slow-scan television (SSTV) system.

A second IORS will undergo flight certification for later launch and installation in the Russian Service Module. The second system enables dual, simultaneous operations, such as voice repeater and APRS packet. It also provides on-orbit redundancy to ensure continuous operations in the event of an IORS component failure.

“Next-gen development efforts continue,” ARISS said. “For the IORS, parts are being procured and a total of 10 systems are being fabricated to support flight, additional flight spares, ground testing, and astronaut training.” Follow-on next-generation radio system elements include L-band repeater uplink capability — currently in development — and a flight Raspberry-Pi, dubbed “ARRIS-Pi,” that is just in the design phase. The ARISS-Pi promises operations autonomy and enhanced SSTV operations, ARISS explained.

ARRISS this year marks 20 years of continuous amateur radio operations on the ISS. The largely volunteer organization welcomes donations to the ARISS program for next-generation hardware development, operation, education, and administration.



September 2020



Mon	Tue	Wed	Thu	Fri	Sat	Sun
	1	2	3	4	5	6
7 Labour Day	8 School starts - watch for kids!	9	10 LARC meeting via ZOOM check your email	11	12	13
14	15	16	17	18	19	20
21	22 First Day of Fall	23	24	25	26	27
28	29	30	Coffee at Boston on Arthur 9 pm every Thursday			