

Ottawa Amateur Radio Club

Groundwave

P.O. Box 8873, Ottawa, Ontario, Canada, K1G 3J2

Jun 2019

CLUB EXECUTIVE

President

Diane Bruce, VA3DB
db@db.net

Past President

Glenn MacDonell, VE3XRA
613-523-4333
ve3xra@rac.ca

Vice-President

Dave Scobie, VE3BOW
ve3bow@gmail.com

Secretary

Arthur Smith, VA3BIT
613-795-1154
va3bit@rac.ca

Treasurer

Margaret Tidman VA3VXN
va3vxn@rac.ca

Directors

Greg Danylchenko,
VE3YTZ
613-236-9291
greg.danylchenko@gmail.com

Tyler Tidman, VA3DGN
va3dgn@rac.ca

Ed Sich, VE3WGO
uhf_tv@yahoo.ca

As of today the latest word on Field Day is that it may be held at the Corkery Community Centre. Check the OARC website for confirmation and further information closer to the date.

See the information on the UK D-Day special event stations on page 5.

Also, remember the RAC Canada Day Contest on Canada Day.

The June meeting is the OARC annual general meeting where elections for the executive are held and the annual financial report is presented.

See you at the meeting.

Ian Jeffrey, VE3IGJ
Editor



Check out our Web Page: www.oarc.net

**Next Meeting 7:30 pm, Wednesday, June 12th
in the Colonel By Room at Ottawa City Hall**

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Membership
 Greg Danylchenko,
 VE3YTZ
 613-236-9291
 greg.danylchenko@gmail.com

Groundwave Editor
 Ian Jeffrey, VE3IGJ
 613-837-7393
 ve3igj@rac.ca

Delegated Examiner
 Mike Kelly, VE3FFK
 613-322-0669
 ve3ffk@rac.ca

Webmaster
 Diane Bruce, VA3DB
 613-225-9920
 va3db@rac.ca

IRLP
 Cary Honeywell, VE3EV
 ve3ev@rac.ca

Repeater
 Harrie Jones, VE3HYS
 613-978-1557
 harriej59@gmail.com



Ottawa Amateur Radio Club

Groundwave

Articles may be submitted for use in this publication provided that they portray events or activities that promote Amateur Radio. Letters and comments are also welcome. Submissions may be made by mail addressed to the Editor care of the OARC, or by e-mail to "ve3igj@rac.ca". Deadline for submissions occurs three days after the regular monthly meeting of the OARC.

Please support your local radio organisations. They support you!

Club Information

The Ottawa Amateur Radio Club Inc. is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the National Capital Area and to the advancement and achievement of club members.

Regular Meetings of the OARC Inc. are held on the second Wednesday of each month (except July and August) in the Colonel By Room which is on the second floor of Ottawa City Hall, formerly Regional Municipality of Ottawa Carleton Headquarters, on Lisgar Street. Meetings commence at approximately 19:30 local. Further details about each meeting are noted elsewhere in this publication.

Executive Meetings of the OARC Inc. are normally held on the first Wednesday of each month at 19:30 local. Contact the President to confirm the date, time and place of the next meeting.

The CAPITAL CITY FM Net meets every Monday (except some holidays) at 20:00 local on the club repeater VE2CRA (146.940-, 100 Hz) to pass traffic and to make announcements of interest to amateurs in the National Capital Region.

The Rubber Boot Net runs week days at 07:30 local on VE3MPC (147.150+, 100 Hz CTCSS tone) hosted by Mike, VA3TJP. The Rubber Boot net has been running since the early 1980's and is popular for the early risers and the go to work crowd.

The POT-HOLE Net is a SSB/HF net sponsored by the Ottawa Valley Mobile Radio Club and is conducted every Sunday at 10:00 hours on 3.760 MHz. All amateurs are welcome to check in.

The POT-LID CW Net is an informal slow-speed CW net that meets every Sunday, except during July and August, at 11:00 hours on 3.620 MHz, to promote interest in CW and CW procedures.

The QCWA CHAPTER 70 Net meets every Monday evening at 19:30 local on repeater VE3MPC (147.150+, 100 Hz) You do not have to be a QCWA member to participate.

The Ottawa Valley VHF/UHF SSB Net is sponsored by the West Carleton ARC. Look for it every Tuesday night (except the first Tuesday of the month) around 21:00 local on 144.250, (roll calls after net on 50.150, 432.150, 222.150, and 1296.100.) Horizontal polarization is preferred.

The Phoenix Net meets Tuesday evenings at 20:00 local on VE3MPC (147.150+, 100 Hz CTCSS).

The regular **OVMRC net** meets Thursday evenings at 20:00 local on VE3TWO (147.300+, 100 Hz CTCSS tone) analogue FM.

VE3TEN
 Tuning in the beacon so that it makes sense requires you tune to **28.175** on CW and read the tone that is there. The spaces between the elements are the higher tone. If that doesn't work, tune to **28.175.28** on lower sideband for better results.

The Ottawa Amateur Radio Club bulletin "Groundwave" is published and distributed to club members. Publication dates may vary but it is hoped that the bulletin arrives at its destination before the events listed in it have expired. The bulletin is not published for July and August when meetings do not occur. Every effort is made to provide accurate information in the bulletin, however we are all human and mistakes can be made. The OARC accepts no responsibility for any damages that may result from this. The opinions expressed in this bulletin are those of the author.

Voice (VHF) 146.940/146.340 100Hz CTCSS required
 (UHF) 443.300/448.300 100Hz CTCSS required

VE3TVA Amateur Fast Scan Television Repeater
 Currently off the air and looking for a new home.

IRLP Node 2040 146.940/146.340 (VE2CRA/VE3RC)
 (Code 411 for info) (Code 204 for activity)
 (Code 88 for time)

For further information please contact the Repeater Chair.

Note: The IRLP link is not connected to ECHOLINK. Please do not try to connect using the alpha keys on your keypad. It just confuses the operator.

Note: The IRLP link is disabled during the Monday night Capital City FM Net from 20:00 to about 21:45.



May Minutes

May 8, 2019

19:33 Meeting started by Dave VE3BOW (Diane VA3DB is present)

Guests

Chris (not yet licensed)

Show & Tell

Andrew VA2QCH: Tape measure YAGI for the ISS, made to be circularly polarized, including a low noise amplifier.

Announcements (Dave VE3BOW)

+ New President of OARC Needed: Dave described the need for a new president and a president's responsibilities.

Upcoming Events (Jeffrey VA3PEW)

+ Rideau Lakes Cycle Tour (June 8-9)

RLCT is fully manned, but additional volunteers are welcome.

+ City emergency exercise scheduled for Saturday, June 15, is postponed to this fall due to the ongoing flood emergency

+ Field Day (June 22-23)

Location still to be determined. To volunteer or for more information on the above events, please contact Jeffrey at ve3pew@rac.ca

Commentary on Rideau Lakes Cycle Tour last year (Roger VA3EGY / Jeffrey VA3PEW)

Roger and Jeffrey pointed out that RLCT cyclists stopped to thank hams for volunteering. Dave VE3BOW commented how cell coverage is still poor over parts of the routes, in particular Lanark County, and that amateur radio provides a link to emergency services. Dave described the ham radio response soon after a tandem bicycle crashed just north of Perth Road Village on Sunday on the return to Ottawa. Hams assisted the two cyclists on the tandem, one of which was visually impaired, by applying first aid and contacting net control to call an ambulance.

Dates to Remember

2019

- Feb. 9-10 Canada Ski Marathon
- Apr. 10 Homebrew Night
- May 17-19 Dayton Hamvention
- Jun. 12 OARC AGM and Elections
- Jun. 22-23 Field Day
- Jul. 1 RAC Canada Day Contest
- Sep. 7 OARC Hamfest
- Sep. 21 Radio in the Park
- Sep. 30 Membership Renewals Due
- Nov. 1 Joe Norton Award Subm. Due
- Nov 21-23 Tall Pines Rally
- Dec. 28 RAC Winter Contest

More Announcements (Dave VE3BOW)

Dave listed off the announcements shown on the screen

+ Wanted: A new OARC President willing to work long hours for next to no wages.

+ Smiths Falls Hamfest on May 11

+ Doors Open Ottawa on June 1-2. Scouts Canada VE3SHQ will be open and could use some help. Contact Harrie VE3HYS to assist.

+ Rideau Lakes Cycle Tour. To volunteer, contact Jeffrey VA3PEW

+ City-wide emergency exercise on June 15 is postponed due to ongoing flood emergency. Jeffrey VA3PEW for details.

+ June 22-23: Field Day (Location to be determined)

+ September 7: Carp Hamfest. Sign-up list passed around by Ed VE3WGO

+ Greg VE3YTY has membership badges for VA3WTZ, VE3TQY, VA3YXY, VE3YXY

Mini-Presentation (Dave VE3BOW)

OARC Broadband Hamnet constructed with a Raspberry Pi and MMDVM software - An Overview

Dave described progress so far to upgrade VE2CRA to be a multi-mode digital/analog repeater.

(Continued on page 5)



mk's Word

As part of my volunteer tasks at RAC HQ, I read a lot of club online newsletters. Recently one came across my screen that stood out. The February 2019 issue of the Regina Amateur Radio Association "Guywire" They had four separate pieces that were interesting to me, as well as several that would likely be of interest to others with slightly different backgrounds in this thing we call ham radio.

First was a neat dodge to get around the problem of filling all the spaces in a power bar, even when "wall warts" had to be accommodated (use a 3-2 wire adapter to lift the wall wart above the other plugs).

Second was a solution to frozen rotators. Even though I don't use a rotator myself, I found their idea interesting (use a battery blanket around the rotator and plug it in when necessary).

Third was a clear and concise explanation of the difference between a duplexer and a diplexer. As someone who seems to do a lot of explaining to new hams, it is nice to have a reference to point to.

Finally, there was an explanation of where the two most common coax impedances came from. I haven't seen this in print since the '60s, when "Electron" magazine had a ham radio section. They also had a quiz, an article on NVIS, interesting websites, and how to decide whether an email is spam or not. I think I'm going to have to send links to our Groundwave editor more often. This one is www.ve5nn.ca

Meanwhile, back here there hasn't been much radio activity. I was one of the few hams who didn't help out with the CN Cycle this year, but I expect that will be well covered elsewhere in this issue. I had spent the previous two days doing HQ radio for the Lanark Highlands Forest Rally. It was less eventful than the previous year's effort, since the power stayed on, as did the repeater they use. Some cars were broken as usual, but everyone ended up OK.

For those of you who were wondering, the floods haven't affected the amateurs as a group, since, as with other high impact events recently, the communications infrastructure wasn't severely affected. It did cause the postponement of some planned exercises because the other organizations in those exercises were dealing with the floods.

Now that June is with us, we are all looking forward to the end of crappy weather and more good radio things. The first weekend is Doors Open. Last I heard, Scout HQ was looking for hams to operate their station during that event.

The weekend after that is the Rideau Lakes Cycle tour from Ottawa to Kingston and back. Again, last I heard they were looking for volunteers.

Usually that is also the ARRL VHF and up contest, with a big effort from the West Carleton club. So if you aren't doing the RLCT (and even if you are) try to give a listen for contest activity and hand out a few contacts.

Of course, June 22-23 is FIELD DAY. Its an operating event (not a contest say the picky), an emergency preparedness exercise, a public outreach demonstration and a gathering, mentoring, and learning event. Did I miss anything? Oh yeah, FUN. 24 hours of operating with a few hours of set up and tear down on either side of it. Last year was our first time at Scout HQ on Baseline. I hope they let us play there again this year.

Even with all that going on, there is still time to get outside and do some radio under the sky. Daylight lasts long enough to get out and give the radios a chance to work on a tan.

73, keep hammin' hummin'
mk VE3FFK



(Continued from page 3)

D-Day Special Event Station

June 6 will mark the 75th anniversary of Operation Overlord during World War II and the D-Day landings in Normandy. To commemorate those who took part, a small team from the Torbay Amateur Radio Society (TARS) in England is organizing a chain of five special event stations along the UK's southern coastline. Each will be based in the geographical area of a beach-landing force point of departure and will use a relevant call sign.

TARS will activate a site above Brixham Harbour in Devon — a departure point for many US soldiers who later landed on Utah Beach and will use the call sign GB75UF.

Other clubs activating similar relevant locations will use these call signs: GB75OF — Omaha Beach, South Dorset Radio Society; GB75GF — Gold Beach, Southampton ARC and Soton University Wireless Society; GB75JF — Juno Beach, Itchen Valley ARC and Waterside New Forest ARC, and GB75SF — Sword Beach, Fort Purbrook ARC.

In addition, TARS hopes to have two club stations from the Normandy area of France activating sites on the beaches. Logging is being coordinated centrally, and stations who contact two or more of the stations within the chain will be able to download a suitable certificate to commemorate their achievement. Details on logging, certificates, and operating frequencies will be available on the TARS website. Contact the organizing team via email.

SSB frequencies will include 3.644, 7.144, 14.144, 18.144, 21.244, 24.944, and 28.244 MHz (data only on 10.144 MHz). Stations operating on CW or data will attempt to use similar frequencies ending in 44. Also, 5405 kHz (5403.5 kHz dial frequency).

The Special Event sponsors announced additional General class subband frequencies:

7.175 MHz and listening 5-10 kHz up; 14.275 MHz; 21.275 MHz; 24.975 MHz, and 28.275 or 28.444 MHz.

Powerpoint kits designed by Wayne VE3ZCO (Dave VE3BOW)
The club has bought the remaining kits from Wayne, and is considering how to distribute the kits to club members.

OVMRC Fox Hunt (Roger VA3EGY)
May 19-26, 147.585 MHz simplex beacon
Roger described his first attempt at a fox hunt. This one will be a week long event, but wants to have a second event later this summer that might last a couple hours at Vincent Massey Park.

Presentation (Norm VE3LC)
"VE3LC's Electric Vehicle - 2018 Hyundai IONIQ"
+ Capitalizing on the \$15K rebate of the previous Ontario government
+ All electric (ie, not a hybrid)
+ Described benefits of having a Green Vehicle license plate such as driving in HOV lanes without the requisite number of passengers required of gasoline-powered vehicles.
+ Battery: 28kWh (2020 models have 38.3 kWh)
+ 360 volts nominal
+ 96 cells arranged in modules
+ Forced air cooling
+ Motor: 3 phase, synchronous AC
+ 118hp, 88kW (2020 model: 134hp)
+ Regenerative braking (motor is also a generator)

Meeting ended at 21:50, followed by brief coffee and social.

No 50/50

Minutes taken by VA3BIT.

The Black Box

An electrical engineer is asked to investigate a setup as shown in Figure 1. A d-c generator with a terminal voltage of 100 volts furnishes current to a series combination of resistance of 5 ohms and a black box with two terminals. The current in the circuit, as indicated by the meter M1, is 10 amperes, and the voltages across the two series elements are each 50 volts, as indicated by the meters M2 and M3. The 5-ohm resistor is rated 500 watts, but it runs a good deal hotter than the manufacturer claims it should with rated wattage; the black box, on the other hand, runs completely cool. The engineer explains this latter phenomenon by proclaiming that electric energy is not converted into heat, but into some other form of energy in the black box (for instance it may contain batteries being charged). Just to be sure of himself he connects a wattmeter in the circuit. The current coil of the wattmeter is placed in series with the ammeter, and the voltage coil is connected successively across the generator terminals, the 5-ohm resistor, and the black box. The readings of the wattmeter in the three places are respectively as follows: 1,000 watts, 1,000 watts, and zero watts for the black box!

Do you think that any moment now you are going to wake up from a bad dream or do you feel that there actually could be something in the black box giving such an astonishing result?

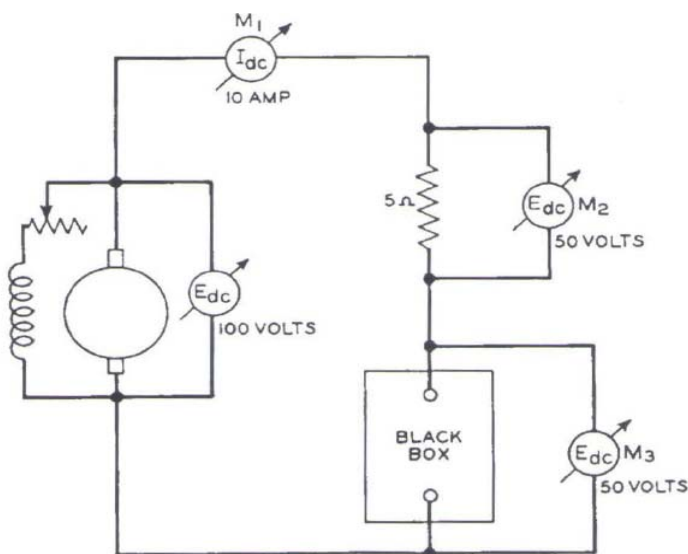


Figure 1

Facts of the Day

Ultra-Flexible Antenna Wire

The 41-strand, 14 AWG, ultra-flexible antenna wire that is sold in short-lengths at high prices under various private-label brand names is PVC-insulated Machine Tool Wire (MTW). It is unusually flexible because it is composed of 41-strands of tinned, 30 AWG, soft-annealed, copper wire. Even though the copper is soft-annealed, it stretches very little, because there are so many small, twisted strands. It is manufactured for use as hookup-wire in industrial electronic equipment in accordance with U.S. National Electrical Code (NEC) specifications. It is available in 500-foot lengths from a variety of wire distributors throughout the world at prices that are significantly lower than the prices charged by antenna wire suppliers. Search for MTW 14 AWG 41/30 wire. ©2005 Martek International All rights reserved.

A Long Balanced Feedline is a Balun

A current balun will make the radiation pattern of most center-fed dipole antennas more symmetrical, because it will tend to force currents in the two dipole legs to be equal. That is true even where a dipole is center-fed with a short balanced line, because even though two feedline leads may be perfectly balanced with respect to earth, few antennas are similarly balanced. One side nearly always is closer to trees, power lines, other antennas, buildings, earth, or something else that will cause leg-current imbalance. However, a straight balanced feedline functions as a current balun to an extent that depends on conductor spacing and line length. The reason is due to Ampere's Law, which involves integral calculus. However, the 'bottom-line' for two parallel conductors that are tightly coupled magnetically is that current flowing in one line induces an equal and opposite current in the other, which forces the two current magnitudes to be equal. Consequently, if conductor spacing is close enough and a feedline is long enough, a balanced feedline functions as an antenna-current-balancing balun. ©2005 Martek International All rights reserved.



ve5aa.dyndns.org/feedline/June_2016.pdf

VE5AA Field Day Recipe

Dry Ingredients

- 2 Kenwood 440's or any other suitable transceivers
- Club Trailer
- Tower
- Antenna
- Club Generator
- The desire to learn, have fun and meet with friends

Wet Ingredients

- Club Members
- Visitors and anyone interested in ham radio
- Pot Luck supper and other fun activities

Instructions

- Mix dry ingredients in the parking lot of the Western Development Museum.
- Slowly add the wet ingredients and stir gently until all lumps are removed.
- Bake at any temperature for 24 hours.

The results are **outstanding!**

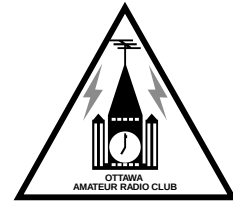
The perfect recipe for fun and good times!

OARC Membership Application/Renewal

Ottawa Amateur Radio Club Inc., Box 8873, Ottawa, ON, K1G 3J2, Canada

- Single \$25 (\$20 after February 1)
- Family \$30
- Junior \$15 (under 18 years of age)
- New Ham \$0 (licensed in current membership year)

- Emailed Newsletter \$0 Mailed Newsletter \$10



Name	<input type="text"/>	Phone	<input type="text"/>
Callsign(s)	<input type="text"/>	Year Licensed	<input type="text"/>
<input type="checkbox"/> Basic	<input type="checkbox"/> Honours	<input type="checkbox"/> Advanced	<input type="checkbox"/> Morse <input type="checkbox"/> RAC Member
Email Address	<input type="text"/>		

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Email Address	<input type="text"/>		

Postal Address

Membership year is September 1 through August 31. Paying members who are in good standing by the December General Meeting will be eligible for a free one-time name badge. Members who wish to purchase additional replacement badges may do so through the club for \$10 each. Ordered badges will be available in January. All prices are listed in Canadian Dollars (CAD).

First Name on badge Callsign on badge

First Name on badge Callsign on badge

Notes