



Ottawa Amateur Radio Club

# Groundwave

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Check out our Web Page: [www.oarc.net](http://www.oarc.net)

April 2008

The next project meeting is March 29, 09:00 at Algonquin College.

The April meeting is reserved for Home Brew Night. Participation is the purpose here. So be sure and bring something along. See the article on page 7.

See you at the meeting.

Ian Jeffrey, VE3IGJ  
Editor



## APRIL MEETING 7:30 pm, Wednesday, April 9th in the Honeywell Room at Ottawa City Hall

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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 "ve3igi@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 Honeywell 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 hours. Further details about each meeting is elsewhere in this publication.

**Executive Meetings of the OARC Inc.** are normally held on the first Wednesday of each month at 19:30 hours. 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 hours on the club repeater **VE2CRA** to pass traffic and to make announcements of interest to Amateurs in the National Capital Region.

**The SWAP Net** is a service provided and conducted by Ed Seib, VA3ES. This feature appears on the Capital City FM Net. To list items and make inquiries, go to <http://www.ncswapnet.ca>. You may reach Ed at 613-738 8924 or e-mail him at [va3es@rac.ca](mailto:va3es@rac.ca).

**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 sponsored and conducted by Ed Morgan, VE3GX, and 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 hours on repeater **VE3TEL 147.030(-)**. 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 on **144.250**, (roll calls after net on 50.150, 432.150, 222.150, and 1296.100.) Horizontal polarization is preferred.

*The Ottawa Amateur Radio Club bulletin "Groundwave" is published and distributed to club members by mail. 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) 146.94/146.34 100Hz CTCSS required  
 (UHF) 443.300/448.300

VE3TVA Amateur Fast Scan Television Repeater  
 Video/audio beacon & input 439.25 MHz (audio sub. 443.75)  
 Video/Audio output 914 MHz (FM)

IRLP Node 2040 146.94/146.34 (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 Capital City Net each Monday. It is disabled from 2000 to 2145 Mondays except for May to August when the link is disabled from 2000 to 2020.

### **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.



## Dates to Remember

### March Minutes

The president called the meeting to order at 19:30. There were 34 in attendance including four guests: Owen Lawrence, Michael Babineau, VE3WMB, Pat Byers, VE3EUR, and Brett Delmage, VE3JLG.

Al MacPhee reported the membership at 73.

Dave Conn and Dave Green reported on the progress of the PIC-AXE club project.

Volunteers are needed for communications at Tour Nortel on May 4.

Dave Goodwin the RAC president will be presenting the RAC Forum at the OARC Hamfest this summer.

Mention was made of the radio activation of the Champlain Trail this summer. [See elsewhere in this issue. Ed]

Bob McKenzie, VA3RKM along with Pat Byers and Mike Babineau gave the evening's presentation. They spoke on the high quality QRP kits from Elecraft—the K2, the K1, the KX1, and the new K3. These kits are in the same class as the Heathkits of yesteryear with quality that rivals the best available in an amateur radio. They also mentioned the existence of the informal Ottawa Valley QRP Society which meets every second Tuesday of the month at Donna's Express Restaurant at Scott and Churchill.

The 50/50 draw of \$26.00 was won by Chris Nestor, VA3CSN. The meeting was adjourned at 21:45.

### 2008

- Feb. 9,10 Canada Ski Marathon
- Apr. 9 Homebrew Night
- Jun. 11 OARC AGM and Elections
- Jun. 28,29 Field Day
- Jul. 1 RAC Canada Day Contest
- Aug. 30 Hamfest
- Sep. 30 Membership Renewal Deadline
- Nov. 3 Joe Norton Award Subm. Due
- Dec. 27 RAC Winter Contest

The Vancouver Olympics Committee (VANOC) has given Radio Amateurs of Canada details of their search for ham radio volunteers for the Olympic Winter Games (Feb. 12-28, 2010) and Paralympic Winter Games (March 12-21, 2010). Volunteers must have or arrange their own local accommodation in Greater Vancouver or Whistler areas.



Of the 25,000 volunteers required, Amateur Radio operators are needed for technical roles during preparation for and during the Olympic events. The on-line volunteer application form, at [www.vancouver2010.com](http://www.vancouver2010.com), includes space to list skills and experience. If the applicant wishes a communications or technical role, they should add a key phrase on their application form, to make it easy for VANOC to identify them. In the fifth (final) application page, add the words "Amateur Radio Operator" in a box called "Additional Information...".

For volunteers with professional skills and experience, VANOC has provided a second key-word to be entered on the last page of the form. This key-word is available from RAC Directors, RAC Assistant Directors in B.C., RAC Section Manager Mike Hale VE7DXD, and ARES officers in BC. For more info, contact BC/YT RAC Director Ed Frazer at ve7ef at shaw dot ca.



## mk's Words

The Not Half Bad Dipole - and other Loopy Ideas (no foolin')

It all started with the RAC Winter Contest. During the contest I found I couldn't get out of my back yard on 80m. Given how small my back yard is, that means the old loop antenna really isn't doing the job on 80m. Anyway, I finally got my 80m dipole up in the sky. Well mostly in the sky. Half of the dipole looks just like the books say it should, going mostly horizontally through the trees. The other half looks more like a ball of string. It goes from the tree to the roof, across the roof, up, over and down, then back again. Since it goes to the roof I figured I might as well add another wire on that half of the dipole from the centre insulator to the roof. That way I can either connect it to the "loop around the roof" or pull it through the attic. In the worst case, it is easier to lop off an extra wire than to haul the thing down to add one. Did I mention that the feed line also runs over to the roof, parallel to the dipole? Definitely not textbook, unless you turn the picture of the ground plane antenna on its side and then crumple up half the page. At least there is a decoupling coil at the feed point. I'm hoping the whole thing will at least work half as well as a dipole and I'll settle for that. These days Not Half Bad is good enough.

While pondering the problem, the idea of compact loops kept coming back. Meanwhile I haven't stopped thinking about how to get on 160m either. I have a ton of 75 ohm coax of uncertain heritage. Maybe if I take a bundle of a half dozen or so parallel lengths of this stuff and form it into a loop I can get enough conductivity to make a half decent compact loop without shelling out kilobucks for copper pipe, then trying to bend the whole thing. Stay tuned.

When not working on my own antenna problems, I spent a bit of time trying to help a ham who is new to HF figure out a way to squirt RF out of his apartment. You have probably heard him on 2m talking about his progress. We ended up with a "balcony antenna" that amounts to 5 feet of whip and a base loading coil. The

counterpoise wires are nothing to write home about, and changing bands means opening up a window to swap coils. Remember when you were new to HF? A 20m contact with a station in Florida was a big deal. That's where this ham is starting from but he is moving up the experience ladder at a great rate. Given that he doesn't even have a balcony he's doing pretty well. Last I heard he is saving up for a commercial vertical and eyeing the ladder that goes to the roof of his building.

That experience leaves me still thinking about how to work HF out of a window. An end fed half wave with a matching network at the bottom looks like a good bet. It should work without a full quarter wave counterpoise. Now, can I put a loading coil in the middle of it, so it isn't 20m high on 40? Can I put a trap into the middle of it somewhere so I can run on 20 and 40 without changing hardware? How about other bands? Is there anyway I can stick something out a window that will work on 80? Can I get more bandwidth out of such a contraption if I use a pair of whips in parallel to make it look fatter? I'm not an expert in the computer part of antenna design, so any hints about starting places would be appreciated.

One of the fun parts of working at RAC HQ as a volunteer once a week is finding familiar names on the hundreds of outgoing renewal notices as they fly by. Don't be surprised if you see a few words from me on yours. At the same time, once in a while my own name shows up. Last week it was on a certificate from the '06 RAC winter contest. It just goes to show that you don't have to be a big gun to win a certificate for some category. Sometimes you just have to send in the log.

Speaking of logs and such, did you do anything in the BERU (Commonwealth) contest? It is just about the only contest where our friends in the USA can't participate. The Commonwealth of Massachusetts doesn't count. Its a great way to work a lot of DX without having to compete with those giant antenna farms down south. I missed it

*(Continued on page 6)*



## Badges Ready For Pickup

### Brainteaser

#### This month's puzzle:

True or False?

- SWR on the transmission line between the antenna and the matching device is determined only by the matching conditions at the load and is not changed or "brought down" by the matching device.
- High SWR in a coaxial transmission line caused by a severe mismatch will not produce antenna currents on the line, nor cause the line to radiate.
- SWR in a transmission line cannot be adjusted or controlled in any practical manner by varying the line length.
- With a good antenna tuner and a well constructed open-wire feeder, a 130-foot center-fed dipole will not radiate significantly more power on 80 m than one 80 feet long for the same power fed from the transmitter.

Send your answers to [editor@oarc.net](mailto:editor@oarc.net)

#### Last month's puzzle:

4	2	8	5	3
3	3	9	1	8
1	5	5	2	3
2	2	4	0	4
3	2	6	5	?

What number should replace the question mark in the above grid?

**Answer:** Congratulations to Mike Kelly, the only one who submitted the correct answer of 1.

The following name badges are ready for pickup at any upcoming meeting. A few of these date from last January's production run. Most have just been produced this January. See Al MacPhee, our membership director to collect your badge.

VA3PUR	Patricia
VE3CT	Croft
VE3EV	Cary
VE3FN	Ray
VE3PJ	Peter
VE3ADM	Roy
VE3DFH	Deborah
VE3EDR	Brice
VE3EPB	Peter
VE3GGQ	Edward
VE3GJE	Graham
VE3HEW	Bill
VE3HLB	Mike
VE3NSI	Brian
VE3TIC	Chris
WY4LMB	Leo

### Dilbertisms

From Microsoft management:

"As of tomorrow, employees will only be able to access the building using individual security cards. Pictures will be taken next Wednesday, and employees will receive their cards in two weeks."

From Lykes Lines Shipping:

"What I need is an exact list of specific unknown problems we might encounter."

From Electric Boat:

"E-mail is not to be used to pass on information or data. It should only be used for company business."



(Continued from page 4)

this year because I forgot to remember to mark it on my calendar to remind me about it.

The OARC project is still chugging along. We have settled into a pattern of "every second Saturday" to work on it. I've managed to get a sine wave out of mine, but it looks like it will be tough to get one to go fast enough to generate CTCSS. At the same time we are learning how to get the microcontroller to look at inputs from the outside world. Ian, IGJ showed me that someone has already built a box that does exactly what I was planning to do with mine, once I learn how to do it. Never being one to re-invent the wheel, I'll buy one of this guys wheels. A keyboard based keyer is looking pretty easy by comparison.

We'll see.

-mk VE3FFK

## Ottawa D-STAR

Greetings everyone.

The Ottawa D-STAR system is pretty much completed with a few exceptions which will be worked on shortly. It is almost one year since we installed the repeaters at the Y and got partially operational.

We now have pretty good systems on VHF and UHF. The 23cm voice system will be improved soon, I hope. We just need a RX filter and then we can connect the 23cm preamp and it should work OK. I have heard the 23cm DV system at my QTH so the coverage should be quite good. The high speed data system is really under-tested at this time, but we should have a better idea once the weather is more conducive to an afternoon of coverage testing.

I am a bit disappointed in the level of activity on the 4

repeaters, but it is what it is, and I'm sure that activity will increase with time.

Our gateway currently supports the \$200 AMBE2 dongle which permits bridging from computers to D-STAR (sort of like echolink) and may also permit bridging between regular repeaters and D-STAR repeaters (with some limitations).

We will soon (mid-April to mid-May) be upgrading our gateway system and installing a web based, self-registration system and several other enhancements and improvements. At that point, most of the specialized technical training that the four gateway admin guys received is no longer appropriate and the gateway will look much more like a regular linux server and a lot less finicky. Sometime late this spring, we will offer D-STAR web serving (for 23cm high speed data) and also D-STAR email for both high speed data and low speed voice.

It is time to re-organize the project and move on. My intention is to leave this Yahoo Group intact because it is a representation of Ottawa users and interested people. It is quiet but from time-to-time there is a flurry of activity.

I need to know where we stand in terms of experimenters, developers, administrators, etc. and helpers for VA3ODG. Who is part of the technical team and available to help, and who is not? If you are prepared to help in any way, or if you are prepared to CONTINUE to help, please let me know. This message is also addressed to the executive and members of other groups in the Ottawa area. PLEASE SPREAD THE WORD to your clubs and groups, through mass emailing. As usual, we need linux expertise, RF expertise, and admin expertise.

Thank you everyone. I look forward to hearing from you.

73,

Rick Bandla, VE3CVG  
Ottawa Amateur Radio Digital Group

## Get Ready for Home Brew Night

As is our club's tradition, we reserve the April meeting for Home Brew Night. Members bring home-built radio equipment and show it off. Judges award prizes based on certain criteria. Oh yeah, and it has nothing to do with beer, sorry!

There are two categories of prize awarded. The main prize is The Clare Fowler Award and it's judged by Clare himself. He decides the winner based on four main criteria:

1. **\*originality\***: is your project something that can be found in most amateur publications, using kits and existing software, or were you innovative, with little to go on?
2. **\*complexity\***: does your project have few parts, non-critical dimensions, and only took a day to make, or does it incorporate many parts, including circuit boards, and took a long time (week or more) to make?
3. **\*craftsmanship\***: is your project crudely or beautifully constructed?
4. **\*presentation\***: how well do you present your project to the group? A good effort here is a concise, non-rambling description of how the item was developed and constructed.

The second category of prize is called The People's Choice, and is arrived at by a secret ballot of club members. As its name would imply, the award is for a project that struck a chord with the club members. For example, the first People's Choice award went to a boy who built a CW key out of lego. It's possible that the same person could win both awards, though that hasn't happened yet.

I should clarify that for those who have been involved in the recent kit-building sessions on Saturdays, there is a plan afoot to devote a meeting in the future, probably after summer, to showing off the different derivations

that members have come up with, so your home brew should not be centered around those kits.

So, having said all that, I'll take some of it back now and say that the above is JUST A GUIDE-LINE. The main goal of Home Brew is to participate, have fun, learn and get ideas. So we encourage you to bring whatever you have done, even if it's a spectacular failure. In other words, who cares if it's good, we just wanna see it! See you April 9.

Janice Neelands, VA3PAX

The Halifax Amateur Radio Club wishes to announce the application process for the Brit Fader Scholarship.



The Brit Fader Scholarship was established in 1993 by the Halifax Amateur Radio Club and endowed through the generosity of Club members and Radio Amateurs throughout the Maritime Provinces of Canada. This scholarship is intended exclusively for post-secondary educational use, to provide assistance with the cost of tuition, room, board, books and/or other fees essential to the advanced education of the recipient.

- 1) Applicant must be a citizen of Canada, but without regard to gender, race, national origin, handicap status or any other factor and must be performing at a high academic level.
- 2) Applicant must, hold an active Basic Class or higher grade of Canadian Amateur Radio license.
- 3) This Scholarship will be provided for attendance at an accredited Canadian post-secondary technical school, college or university, with preference given to applicants who have been accepted into a program in the field of electronics or electrical engineering.

Application submissions must be postmarked no later than July 1st 2008. See further information at [www.Halifax-arc.org](http://www.Halifax-arc.org).



## Activating the Champlain Trail 2008

2008 marks the 400th anniversary of the founding of Quebec City by one Sieur Samuel de Champlain in 1608. Canadian annals also acknowledge Champlain as the founder of Canada. And to this day, there is an active Champlain Society in Toronto. His name has not been forgotten, as witness the many parks, buildings, schools, hotels, streets, bridges, townships, and counties in Canada and also in the U.S. Who has not been to Lake Champlain?

In Quebec City, the festivities were launched by a huge gathering and musical spectacle on New Year's Eve, complete with fireworks, the like of which was never seen before. The celebrations will last all year.

Therefore, we intend to join the festivities and hit the Champlain Trail by activating the many sites marking the passage of this extraordinary explorer along the St-Lawrence and Ottawa Rivers. Many sites are considered including Nepean Point and the Chateau Frontenac. Here is a tentative list:

Ile aux Allumettes (Algonquin Grand Chief Tessouat)  
Cobden Park (Astrolabe and Algonquin Chief Nibachis)

Portage-du-Fort

Fitzroy Harbour

Champlain Lookout in Gatineau Park

Nepean Pointe (Champlain Monument)

Petrie Island

Champlain Township, L'Original (near Hawsbury)

Ile Ste-Hélène

Trois-Rivières

Portneuf

Québec City (Champlain Monument)

A special event call sign will be applied for and we will activate as many sites as we can with mobile stations, in about the same way we activated the locks on the Rideau Canal system last year. We will coordinate our

visits with the Quebec 400 Committee and the municipalities along the way, and invite local radio amateurs to join in by communicating with their clubs.

### Latest News:

A special event call sign was authorized from 1 June to 30 July, 2008. We will be on the air as VC3C.

The first activation will take place at the Champlain Lookout in Gatineau Park on Sunday, 1 June 2008. Look for us on HF, VHF, UHF, in CW, SSB, PSK31, on 15, 20 and 40m, IRLP, and APRS.

We call upon the Amateur Community in your area to participate in this great endeavour by providing operator support while we are covering a site in your region. Hours of operation will be from 10 am to 5 pm. Radios, antennas, and power supplies will be available. We will be handing out information to visitors as this is also a public relation event for amateur radio. Tentative dates for activation of the Champlain sites in your region are:

01 June 08 - QRV - Champlain Lookout

07 June 08 - Astrolab at Nepean Point

08 June 08 - Pétrie Island

30 July 08 - Final Wrap-up Ottawa Region - QRT.

Should your club be interested in joining us, please contact me anytime at [vig@mondenet.com](mailto:vig@mondenet.com) or at 613-749-9010. I also spend time at the Canada Science and Technology Museum Amateur Radio Exhibit station VE3JW at 613-991-6949.

Visit [qrz.com](http://qrz.com) and type in VC3C. Watch for inputs at RAC, RAQI, TCA, ARRL, QST, and the OVMRC "The Rambler". The website <http://www.geocities.com/vc3c400/VC3C.html> will carry all the information.

Maurice-André Vigneault, VE3VIG

**Membership Application/Renewal**  
Ottawa Amateur Radio Club Inc., Box 8873, Ottawa, Ontario K1G 3J2

- Single (\$25, \$20 after Feb 1)
- Family (\$30)
- Junior (\$15, under 18 years of age)
- New Ham (Free if licensed in current Membership year)
- Emailed *Groundwave*     Mailed *Groundwave* (add \$5.00)



**Please Note: Membership year is September 1 to August 31**

Family Name: \_\_\_\_\_ First Name/Initials: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Prov: \_\_\_\_\_ Post Code: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_

E-mail address: \_\_\_\_\_ (For *Groundwave* mailing)

Callsign(s): \_\_\_\_\_

Qualifications:  Basic     Advanced     Morse Code  
Year Licensed: \_\_\_\_\_ RAC Member?    Yes

**Other Family Members**

Name: \_\_\_\_\_ Callsign(s): \_\_\_\_\_

Qualifications:  Basic     Advanced     Morse Code  
Year Licensed: \_\_\_\_\_ RAC Member?    Yes

Interests: \_\_\_\_\_

Comments/Suggestions: \_\_\_\_\_

All members who are in good standing on or before the December General Meeting will be eligible for a free one-time name badge. Members who wish a second or replacement badge may purchase one at the Club Price (approx \$7.50 plus tax). Ordered badges will be available in January.

OARC NAME TAG    Yes     Second or Replacement    Yes

ORDER DETAILS - As to appear on badge:

First Name \_\_\_\_\_ Call Sign \_\_\_\_\_