



Ottawa Amateur Radio Club

# Groundwave

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

October 2008

We had a good turnout at the September meeting and hope to continue the good attendance throughout the fall. We already have a good lineup of events: a special tour of the Diefenbunker planned for later this fall, and a Trivia Night in December, among others.

The Joe Norton Award is coming up. See details inside.

A reminder that membership renewals are due by the end of September. There is a membership renewal form in this newsletter.

October's speaker is Dave Scobie, who will give a review of the ICOM IC 7000.

See you at the meeting.

Ian Jeffrey, VE3IGJ  
Editor



## SEPTEMBER MEETING 7:30 pm, Wednesday, October 8th 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 "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 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 146.940(-)** 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, got 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.



## September Minutes

The president called the meeting to order at 19:30. There were 35 present including nine guests: Sandy Hagart, Glenn MacDonell, VE3XRA, Marie-Claude, F6BWX, Daniel, F6ACO (from near Strasbourg), Earl Burneau, VE1EPJ (Shearwater), Tyler Tidman, Steven Jones, Tyler Trezise, Pawel Wesolowski, VE3CNY.

Ed Sich presented a summary of the Hamfest. Attendance was about the same as last year. The membership thanked Ed for his efforts.

Harold Hamilton presented a summary of Field Day—it was wet. There were 460 CW QSOs and 437 SSB QSOs. The membership thanked Harold for his efforts.

The president announced that a new club project is in the works. Details to come later. Also a tour of the Diefenbunker is being planned for sometime later this fall. The cost will be 12.50 plus tax.

Peter Gamble proposed some joint ventures with the OARC.

Bob MacKenzie (in absentia) presented Swiss Army knives courtesy Elecraft to Gord Phillips, Harold Hamilton, Bryan Campbell, Richard Hagemeyer, Janice Neelands (who gave it to Dave Scobie who gave it to his son), and Greg Danylchenko (who gave it to the club which put it in a draw for members who have renewed by the October meeting).

The president reminded everyone that the Joe Norton Award is coming up. [See announcement elsewhere in this issue. Ed.]

John Connors spoke on the process and results of the new RAC HF band plan which came into effect in July.

Ernie Brown offered up some free slide rules. Janice Neelands offered up a free extension cord. Dave is looking for 146.280 and 146.880 crystals.

## Dates to Remember

### 2008

- Aug. 30 Hamfest
- Sep. 30 Membership Renewal Deadline
- Nov. 3 Joe Norton Award Subm. Due
- Dec. 27 RAC Winter Contest

### 2009

- Feb. 7,8 Canada Ski Marathon
- Apr. 8 Homebrew Night
- Jun. 10 OARC AGM and Elections
- Jun. 27,28 Field Day
- Jul. 1 RAC Canada Day Contest

Interesting contacts were described by Jacques, Dave, Mike Kelly, George Roach, Dave Conn, and Clare Fowler.

Mike Kelly showed off a few of his projects including a passive audio band pass filter, a Z100 CW tuning aid, and a 20/40 m antenna.

Clare Fowler described some of his research results on helix antennas.

Dave Conn talked about a curtain dipole.

Dave Conn won \$23.50 in the 50/50 draw and Ian Jeffrey won a RAC mug..

The meeting adjourned at about 22:00.

## York Region Hamfest

The York Region Hamfest will be held on Saturday, October 25 at the Markham Fairgrounds in Markham, Ontario. Doors open at 09:00. Talk-in 145.350(-).

Further information on the web site <http://yrarc.on.ca/hamfest>.



## mk's Words

Overwhelmed. In a word. At the exam session held as part of the OARC Hamfest. I haven't had so many exams at one time since the days when the Basic licence was a new idea. Those who passed were somewhere between happy and walking on clouds. Those who didn't have a new appreciation of what it takes to pass the exam. Qualifications sure don't come in cereal boxes. Both I and the candidates will be better prepared next time. I have another exam to conduct this weekend.

Meanwhile, how was your hamfest? I missed it. No, I mean I "missed" it. I missed looking at all the stuff and having no clue what it is. I missed looking at stuff with the feeling that I was the only one in the hall who knew what it was. I missed saying hi to everybody who I only see once a year at the hamfest. I didn't think I would miss any of that, but life still surprises. Next year I will try to arrange the exams a little differently, so I can sneak out for a bit. Ed and I had a bit of a discussion afterward. Have we taken care of the backlog, leaving fewer exams next year, or are we just ramping up so we will have more exams to conduct next time?

Moving on, how about that September meeting? With the last minute substitutions, I was expecting a bit of a stew. You know, little lumps of stuff with some tasty bits and a lot of overcooked mushy vegetables. Instead, what I saw was a pretty good review of what we did last summer, and where we are going this year. Because of the number of guests and new hams in the room, (biggest number in a long time) I started to look at the meeting as if I was a newcomer to the club. It was a little bit of a foreign language, but over all, I got the impression that this is a club that is going places and doing things. Pat yourself on the back.

Now its time to do all of the things that got rained out or put aside through the summer. The manuals project is coming along slowly but at least it is moving forward. The club project needs a "spark plug" to get things moving forward for the year. The executive has a few tweaks we'd like to do to beef up the club. I'm sure you'll hear more once the ideas get past the "half

baked" stage. In the rained out category are all the antenna projects, and lots of outdoor operating. I'm now willing to trade off a few degrees C for a clear, sunny dry day or two. Top of my list is to work on my ground system. A huge tree got taken down near me this year, leaving my own antennas and supports more vulnerable to lightning. This item was on my do-list for last year too. Maybe there is more of an incentive now.

The bottom line is that there is still (as always) lots to do. Maybe even some spend some time on the air.

73, mk VE3FFK

*(Continued from page 8)*

all worked with my parallel port test jig (running on FreeBSD <http://www.pcbsd.org>) and with my scope probes etc. I was set to try the actual program for PSK31 on it.

I get it all set up and discovered fldigi (<http://www.w1hkj.com/Fldigi.html>) has no code to drive the parallel port. No problem, I rewrote the code in fldigi (oh the joys of open source) so it will drive a parallel port or the original serial port and e-mailed the patches to the fldigi people. Finally, it all works and I've made two PSK contacts on 20m so far!

- 73 Diane VA3DB

- [db@FreeBSD.org](mailto:db@FreeBSD.org)
- [db@db.net](mailto:db@db.net)
- <http://www.db.net/~db>



## Message from the President

It's hard to believe, but with the conclusion of the annual OARC Hamfest, summer is almost over and the 2008/9 season is upon us. Ed Sich, VE3WGO, did a terrific job organizing this year's event and it was great to see so many OARC members turn out to volunteer for the Hamfest. One of the innovations this year saw Mike Kelly VE3FFK, the club's delegated examiner, conducting amateur radio exams at the Hamfest. This effort resulted in some newly certified and very happy radio amateurs. A Hamfest like this can only be a product of an active and thriving amateur radio club.

Rick Furniss, VE3IHI, organized the election segment of last June's annual meeting. Much of Rick's job was relatively painless as the existing executive was acclaimed for the 2008-9 season. The exception was that Rick was finally able to find a candidate for the club secretary, a position that had been unfilled for almost two years. Dave Scobie VA3AE has agreed to serve as the new club secretary. I warmly welcome Dave to the executive and I personally wish to thank Rick for his efforts.

The new season is beginning to take shape already. The executive is looking into holding another December Trivia Quiz. We are planning a club tour of the Diefenbunker in Carp later this fall. David Conn VE3KL and I are also in the early stages of planning a club project that will continue last year's very successful PICAXE microcontroller project. We will have more to say about these activities in upcoming meetings.

Last spring I had some discussions with Mike Kelly VE3FFK and with Peter Gamble VE3BQP who heads up EMRG in Ottawa. Together we have been looking at ways where the OARC might play a more active role in supporting EMRG activities.

I will be promoting the Joe Norton Award throughout the National Capital Region this fall in order to encour-

age new radio amateurs to become active participants in the community. This award is open to all newly certified amateurs in the National Capital Region. OARC membership is not a requirement. Details can be found on the OARC web site <http://www.oarc.net/norton.html>.

Members of the Ottawa Amateur Radio Club remain actively involved with many of the current issues that face amateur radio today. Some examples that have been discussed at recent club meetings include D-Star, the revised RAC HF band plan, the BPL threat, and the increasing challenges related to antenna tower installation in urban areas.

Be sure to attend the regular meetings of the OARC. Besides being a lot of fun, they help to keep you informed of recent developments that affect the amateur radio community. The meetings are held on the second Wednesday of the month at City Hall. I hope to see you there.

73, Dave VE3TLY

Pres. Ottawa Amateur Radio Club

## ARRL Presents New Membership Benefit

With just a mouse click or two, ARRL members can now access the online QST magazine archive. This new benefit -- a service of the ARRL Technical Information Service (TIS) -- provides PDF copies of all QST articles from December 1915 through December 2004, enabling members to view and print their favourite article, project and more. For many years, the TIS has provided members with assistance researching ARRL periodicals and publications, as well as providing members and non-members with article reprints for a small fee. Access to the new online digital QST archive is free for ARRL members



## Morse

A new website to learn and practice Morse telegraphy has been launched: <http://lcwo.net/> - Learn CW Online

There are already hundreds of training programs, MP3/CD courses and practice aids available, but LCWO follows a radically different concept. While sticking to well-proven methods for learning and practice, all you need for using LCWO is a web browser!

This gives the user the liberty to practice CW wherever an internet connection is available, always retaining the personal settings, scores and statistics.

Currently the site, which is available in seven languages (Czech, English, French, German, Italian, Portuguese, Spanish) offers a complete Koch method Morse course, code group practice, callsign, and plain text training modes and also allows converting random text to Morse MP3s.

A high score list is available to compare results with other users, personal statistics help to track training progress.

LCWO.net is a non-commercial project. Creating a free account only takes a few seconds, and you can start practicing CW right away!

Fabian Kurz, DJ1YFK

## RAC Announces New HF Band Plan

The HF band plan presently in use in Canada was adopted in 1996. Since then, many changes have happened in the amateur radio world and other band plans have been revised and modified. Let us only mention the changes announced by the FCC in 2007 affecting the US band plan and the revised band plan adopted by the IARU Region 2 countries at the Brasilia conference in September 2007.

Just under two years ago, Radio Amateurs of Canada had asked Bob Nash, VE3KZ, a former First Vice President of RAC, to re-activate the HFBPC (HF Band Planning Committee) with a goal to review and modernize the Canadian HF Band Plan. Bob's committee has since worked very hard in studying and consulting all across Canada to eventually come up with a band plan proposed to the Board of Directors of Radio Amateurs of Canada. The RAC Board adopted this plan at its July 2008 meeting and the new band plan is now on the RAC Web page at:

[http://www.rac.ca/service/bandplans/hfband\\_e.php](http://www.rac.ca/service/bandplans/hfband_e.php)

RAC wants to thank the HFBPC members for their hard work and wishes the Canadian Amateur community much pleasure in using the new band plans.

Please spread the news.

73,

Daniel A. Lamoureux, VE2KA  
Vice President International Affairs,  
Radio Amateurs of Canada.

[ve2ka@rac.ca](mailto:ve2ka@rac.ca)

## **Joe Norton Award Announcement**

The Ottawa Amateur Radio Club Inc. annually awards the Joe Norton Trust Award for the advancement of amateur radio. The amount of this award is \$500 and a wall plaque.

### **ELIGIBILITY**

To be eligible, a candidate must:

1. Be a resident of the National Capital Region as defined by the official federal government map.
2. Have received a Certificate of Proficiency in radio from Industry Canada during the period June 1, 2006 to June 1, 2008.
3. Send a written submission of no less than 600 words and no more than 900 words to the executive of the Ottawa Amateur Radio Club Inc., setting out his or her interests, achievements and plans to contribute to the advancement of amateur radio.
4. Present him/herself for an interview if so requested by the judges.

### **RULES**

1. Entries must be received on or before 17:00 local on November 5th, 2008. Entries received after that date will be considered.
2. The OARC will send an acknowledgment in writing upon receipt of an application.
3. A panel of judges appointed by the executive of the Ottawa Amateur Radio Club Inc. will evaluate all entries.
4. Finalists may be interviewed by members of the executive of the Ottawa Amateur Radio Club Inc. , the panel of judges, or both.
5. Submissions will not be returned.

6. If the judges do not select a candidate in any year, no award shall be made in that year and the monies shall return to the trust fund.

7. All decisions of the executive of the Ottawa Amateur Radio Club Inc. are final.

8. The winner will be notified on or before November 19th, 2008.

9. The winner will inform the Ottawa Amateur Radio Club Inc. of his or her acceptance of the award no later than November 30th, 2008.

10. The award presentation will be made during the regular meeting of the Ottawa Amateur Radio Club Inc. in December.

11. The winner agrees to have his or her name, photograph and address published in club bulletins, trade papers and magazines, and on the airwaves.

### **ENTRIES**

Send your entry, to be received no later than 17:00 on November 5th, 2008.

By mail, to:

Joe Norton Trust Award  
Ottawa Amateur Radio Club Inc.  
Box 8873  
Ottawa, ON  
K1G 3J2

Entries may also be e-mailed, in plain ASCII text only. No word processor formatting, no word processor attachments allowed, to:

[executive@oarc.net](mailto:executive@oarc.net)

Be certain to include your full name, address, call sign, and your e-mail address if you have one, in your submission. Both mail boxes, paper and electronic, will be cleared at 17:00 on the closing date.

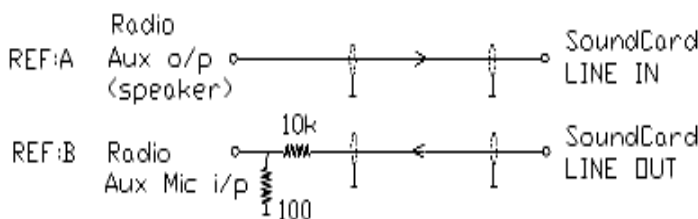


## How Not to Design and Build a Computer Radio Interface

I've been wanting to build a computer interface for my radio for a few years now even to the point of suggesting it as a club project. There has always been some excuse to not just sit down and do it. Well, this month I decided to do exactly that, I mean, how hard can it be? It's just two pairs of wires in and out right? Well, maybe.

One of the early design decisions I made was not to use the front panel microphone connector, that would have meant finding that odd connector (TS-2000X) and moreover finding panel connectors for it too if I wanted to build a pass through box so I would not have to connect and disconnect the microphone; besides Kenwood had provided a connector for the back panel Accessory (ACC) connector so why not use it? For many months, I made do with a single audio cable from the radio ACC audio to the computer input, it seemed to work fine for recording and decoding PSK31 so I figured all I really needed to do was add the transmit side. I looked around for information on the web and soon discovered WM2U's PSK31 page, (<http://www.qsl.net/wm2u/psk31.html>). It seemed it wasn't that simple. I had to divide the output voltage from the sound card quite a bit so it wouldn't overdrive things and splatter. Since I had a few 10 turn trimmers around, I put a 2k 10 turn in instead of the 100 ohm resistor. (See Fig. 1 audio setup.)

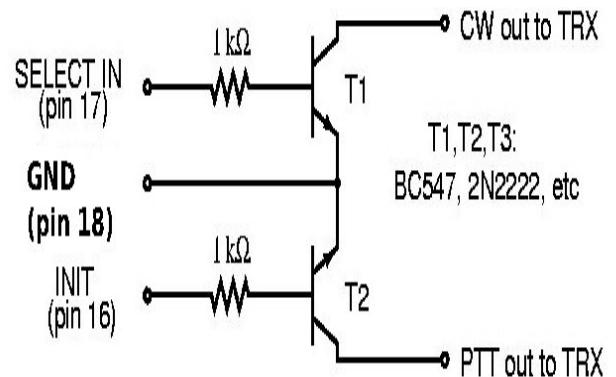
Amazingly to me, looking at the output of the sound-card with a scope, it clipped before it even reached the microphone voltage divider. It is rather important it not be a square wave before it reaches the ACC audio input, so I cranked the computer mixer output down to about 10%.



The other problem was finding audio cable small enough. As it turns out, I had a junk box full of old computer headsets, it seems I run the chair over the cable and they become deadsets. By salvaging some cable from the deadsets and using a bit of perf board, I put together a simple interface. Audio from the radio worked as it always had, but what happened to the VOX? Other amateurs had assured me that all I needed was the audio and then I could just use the VOX from the radio. It appears the VOX is disabled for the ACC input, I had to build something to control the PTT line. No problem! I will just add a couple of keying transistors and since I have no spare serial port but I have a spare parallel port, I'll use that. I had already built a parallel interface for cwdaemon (open source CW program, <http://www.qsl.net/pg4/>) to key CW so I will just combine it all into my interface. I also did not want to cut apart my nice moulded cable to see if that will work or build up a piggyback set of connectors. I didn't bother wiring up the band switch, I only needed the CW keying line and PTT line. I also didn't bother with the pin 1 select. I have found it works fine keying directly to ground. I may add that back later but I will then need to use an optoisolator. (See Fig.2 transistor switches, modified from cwdaemon schematic parallel\_port\_circuit.jpg)

The box looks like a deranged octopus at this point. CW key line in, parallel port line in, radio line to the ACC jack on radio, CW key line to the radio, cable for the audio on the computer. But it

*(Continued on page 4)*





## Field Day and Hamfest



From top to bottom:  
The 2008 Field Day Crew.

A rare sighting of a CW op kissing a microphone.

Lots of money changing hands at the 2008 Hamfest.



**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 \_\_\_\_\_