



Ottawa Amateur Radio Club

# Groundwave

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Check out our Web Page: [www.oarc.net](http://www.oarc.net) November 2008, Rev. 1

The Diefenbunker staff have notified us that due to construction and staff availability, it will be necessary for the Ottawa Amateur Radio Club to reschedule its planned tour of the Diefenbunker. The new date is Thursday, November 13, 2008 7:00 PM. Diefenbunker is located at 3911 Carp Road, Carp, Ontario. This is near the OARC Hamfest location. The club is not organizing transportation. Members are encouraged to make their own carpooling arrangements. Contact Dave Green for further details.

Last chance for the Joe Norton Award. See details inside.

A reminder that membership renewals were due at the end of September. If you have not already done so, please renew now. There is a membership renewal form in this newsletter.

The speaker for the November meeting of the OARC will be Vladimir Sidorov, VE3IAE, who will speak to us about HF Contesting.

See you at the meeting.

Ian Jeffrey, VE3IGJ  
Editor



**NOVEMBER MEETING 7:30 pm, Wednesday, November 12th  
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.



## October Minutes

The president called the meeting to order at 19:30. There were four guests including Brendan McDonald, VA3BJM, from Dryden Ont. and Murray Kellett.

### UPDATES:

Project still in the works:

Diefenbunker tour scheduled for Thursday, November 13 at 19:00. Arrange your own transportation.

The Elecraft prize (jackknife) awarded to Wayne Getzel, VE3CZO.

Club station - a remote station may be a possibility.

VA3AE, while working with VE3MDL on amateur radio astronomy projects is becoming interested in software defined radio, and the possibilities of operating a radio station from a remote location. Interested members should contact VA3AE. VE3MDL will be speaking to us in January on software defined radio.

### ANNOUNCEMENTS:

Joe Norton prize applications are being solicited. Members requested to advise recently licensed hams about the award. See OARC website for more info.

Quinte ARC holding fox hunt Oct 18 in Prince Edward County.

Trivia night will be December meeting. Bring noise makers (home-brew ones especially welcome). Richard Hagemeyer is hosting while Janice Neelands and Greg Danylchenko are authoring.

We are looking for a member to coordinate "buddies" to answer questions of newcomers.

Greg, VE3Ytz will be developing a welcome package to be made available to members and visiting hams. Advise Diane VA3DB if there are any errors in the club web site, especially the list of local nets.

### HAVES AND WANTS:

Christophe Gibran, VE3KRW is looking for a Pactor TNC. VE3CV has 20 years of TCA looking for a home

## 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

quickly. VE3TLY has a 1kW generator that needs ignition work (VE3IHI will take it.)

### INTERESTING CONTACTS:

VA3AE worked 9K2KA, Kuwait. Op remembered him after 15 yrs (without a computer). VE3KL worked HB9SPACE special event station. He would like to see space week happen on the air in Canada. VE3NPC worked a station on 17m, (not via satellite for once). VE3AAQ worked VE8RCS/(VY0) and E51JD, who sent a book mark from a library sponsored by the "Canada Fund".

### PRESENTATIONS:

Donation of Kantronics KPC3+ presented to Peter Gamble, VE3BQP for EMRG/Ottawa ARES as a tangible expression of support of EMRG by OARC. Peter indicated it will be used primarily to facilitate Red Cross communications.

RAC Foundation award of \$1000 presented to Brendan McDonald VA3BJM by Dave Goodwin VE3AAQ/VO1AU, president of RAC. Brendan was also awarded an OARC Membership. He is attending Ottawa University.

Dave also presented a summary of upcoming CARAB meeting agenda items: amateur access to spectrum at 137kHz, 500 kHz, 5 MHz and foundation licences.

*(Continued on page 4)*



## mk's Words

I think I just figured something out. It seemed that this year I wasn't on the air as much as I remember. That was never a lot by the standards of some of you. So if it seems to be down then I must be pretty much off the air. So what happened? Well I took a quick look at my calendar. EMRG meetings, both exec and regular, as well as planning for same. Then there are OARC meetings, exec and regular. Just writing this column takes a little time and thought. (even if the editor thinks they look like they are written off the top of my head). Add in a day a week helping RAC out with the office chores and a bit of time lining up operators for the Emergency Management College and the time starts to get tight. Then there is the occasional Basic exam and maybe a bit of tutoring and it's no wonder the paddles get a bit dusty. Regular domestic duties like laundry, dishes and fixing the 80m dipole take time as well. It seems the only operating I get done is during "events" such as Collegetown, Tall Pines Car Rally, Ski Marathon and or Tour Nortel. Then in the fun department are the upcoming 160m CW contests in the winter. Add in the Capital City net just to keep the cob webs off the 2m antenna at home. Don't get me wrong. There isn't one of these things that I didn't volunteer for. I am happy to do them. In some cases because I have time and skills that others don't, which can be put to good use. In some cases they are good practice or just good fun. In all cases if I didn't want to do them I wouldn't be there. Its just that I have only recently figured out what to say when someone says "Haven't heard you on the air recently - What are you doing these days?". ..So what's your excuse?

More interesting stuff, again OFF the air is coming up. I'm looking forward to the trip to the Diefenbunker in November. It has been on my to-do list for a while. As with the trip to Kingston last year, it will be a better visit because of the company. You guys ask way better questions than I could. I wonder if there will be any Joe Norton Award candidates this year. The closing date is coming up pretty fast. Maybe I am just noticing them this year, but there seems to be a few more new members this year than in previous years. That has to

be a good sign. All in all things are looking good for the fall and winter (even if I DO still have to get the 80m dipole fixed before the weather gets nasty again).

73 & keep radiating  
.. mk  
VE3FFK

*(Continued from page 3)*

He also mentioned that TCA will have major improvements starting in January. He lamented that although RAC membership is growing, it is still only 10% of the amateur population.

MAIN SPEAKER: Dave Scobie, VA3AE on the Icom IC7000 Started wanting to put HW101 into dads car. Rule #1: Ground everything. Rule #2: Use ferrites by the box full to keep RF out of places it shouldn't go. Rig installed in metal tray to facilitate grounding, removal of the "system" consisting of multiple parts and accessory pieces. Big Plusses: Remoteable front panel with big display, easily readable. Information from display can be routed to an even bigger composite video display (embedded in the dash). Audio is routed through vehicle stereo system speakers. Front panel layout is good. Ergonomics are good. The functions are well thought out. I.F. DSP works very well. Lots of filter modes. Lots of memories. General Coverage HF + 6/2/.7m. Computer control via USB. Cost \$1100.

The 50-50 draw of \$23 was won by Dave Green, VE3TLY.

The meeting adjourned at about 21:30.

Mike Kelly, VE3FFK



## Trivia Night

### Form your teams, and make a noisemaker

It's that time again! The December 10th meeting will be Trivia Night. For the benefit of new members, this means that, instead of listening to a speaker, you will be challenged to answer a broad range of questions related to Amateur Radio, à la *Reach for the Top*.

As was the case last year, you can either play individually, or else form teams of any manageable size (max 4 players). Don't forget to come up with a goofy radio-related name for your team (how about *One Bright Spark and Three Dummy Loads*). Prizes will be given to teams who answer the most questions correctly and to runners-up. Each individual or team will need to bring a noisemaker of some kind, in order to signal when you have the answer to the question. Your noisemaker could be as primitive as a boy scout whistle or as complex as a buzzer circuit. The more homebrew it is, the better; that way you can enter it in the mini homebrew contest afterwards. If you forget your noisemaker, don't worry—one will be assigned to you. However we're not promising anything dignified: remember last year's rubber chicken?

Once again we are fortunate to have Richard, VE3UNW, as our moderator, so the evening promises to be great fun as always.  
Janice Neelands/VA3PAX

## Seeking Buddies

In order to make sure that guests and new members feel welcomed by the club, the Executive is calling for volunteers to serve as "welcoming buddies" at monthly club meetings. The role of a buddy would be to chat with newcomers, answer any questions they might have, show them the ropes, and generally make them feel welcome. If you're interested in serving as a buddy, please contact the coordinator, Greg Danylchenko, at ve3ytz AT rac.ca.

## Jet Stream Mystery

Planetary scientists have long puzzled over why fast-moving rivers of air called jet streams flow eastward at the equator of Jupiter and Saturn, but go westward on Uranus and Neptune. Now a new simulation has begun unravelling that mystery by showing how turbulent thunderstorms create the jet streams. Whether a jet stream flows east or west seems to depend on the amount of water vapour in a planet's atmosphere — but researchers confess that the "how" [still eludes them](#). "Under these conditions, the eastward equator flow prefers low water vapour abundance," said Yuan Lian, an atmospheric dynamics researcher at the University of Arizona in Tucson. "The westward equator flow prefers high water vapour abundance. However, we still don't know exactly how this happens." The equatorial jet stream goes westward on Earth, but all the other jet streams on our planet go eastward, including the one that frequently [dips down from the Arctic](#) to bring winter storms across North America.

### Rivers of air

Jet streams feed on swirling eddies that can form the basis of thunderstorms on giant planets. Eddies don't necessarily all merge together to form a jet stream — some can simply spin off their angular momentum into the jet to sustain howling wind speeds. Some jet streams have clocked in at 400 mph (644 km/h) [on Jupiter](#), and almost 900 mph (1,448 km/h) on Saturn and Neptune. Wind speeds on Venus can hit [almost 230 mph](#) (370 km/h). "You have a little vortex that gets stretched out and sheared apart by the wind," said Adam Showman, a planetary scientist at the University of Arizona. "As it's shearing apart, it gives the jet stream a little push." Eddies and vortexes themselves form from rising water vapour. The vapour condenses in the cooler upper latitudes of planet atmospheres and releases energy in the form of heat, which disturbs the surrounding atmosphere.

### Simulating the flow

Showman and Lian estimated that Uranus and Neptune contain 10 times as much water vapour as [Jupiter and Saturn](#). They plugged the data into their simulation runs and found that they came up with jet streams with directions matching those observed on each planet. "We took our best guess with our best models for each of the planets," Showman told *SPACE.com*. "We did a bunch of simulations varying the water. Even if we don't think the planet has that amount, it allows us to understand role of water in that simulation." The simulations also came up with the 20 jet streams each for Jupiter and Saturn, as well as three jet streams each for Uranus and Neptune. Likewise, they produced simulated storms similar to thunderstorms previously spotted on Jupiter and Saturn.

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## News Items

### *Broadcasters set to QSY*

In six months time powerful shortwave broadcast stations are to migrate from the band 7100 to 7200 kilohertz as that spectrum fully reverts to the Amateur Service. Before 1938 there was an exclusive amateur allocation of 7 to 7.3 MHz. But due to world unrest 7.2 to 7.3 MHz was taken away to accommodate propaganda broadcasting in the lead up to World War II. It had been thought the band would be returned to the Amateur Service, but it continued due to Cold War, and in fact broadcasting increased the size of its primary allocation. While in some parts of the world radio amateurs managed to retain 7 to 7.3 only the bottom third was amateur exclusive and the remainder shared with broadcasters. The International Amateur Radio Union mounted a campaign for the 40m band to be returned globally to the Amateur Service. Its case stated that such a change would ensure effective communications support particularly in the event of natural disasters. The IARU pursued the issue at the World Radiocommunications Conference in 2003 gaining 7.1 to 7.2 MHz worldwide for the Amateur Service, adding an extra 100 KHz on the exclusive allocation, while sharing between 7.2 and 7.3 MHz continues. --WIA

### *CW skimmer makes paddles go further?*

Like virtually all sports, amateur radio does have its controversies and a current one is called the CW Skimmer, but what is it? A clever piece of software developed by Alex Shovkoplyas VE3NEA, the Canadian who is also behind the DX Atlas and a number of other ham radio programs. CW Skimmer receives and decodes signals and graphically shows them as a band map on a computer screen, listing stations by callsign and frequency. The software obviously can help to more easily find stations, which could be very useful during a of a Dxpedition. Meanwhile Pete Smith N4ZR is pushing for listening centres to be set up using the software to create a 'reverse beacon' network. CW Skimmer is sparking lots of debate as to whether it's

just a new innovation that should be embraced by radio amateurs, or outlawed by ham radio rule makers. --WIA

*(Continued from page 5)*

Yet the question remains as to why jet streams at the equator go either east or west.

### **Stability, stability**

Without knowing the details, researchers can only speculate on water vapour condensation creating a [topsy-turvy atmosphere](#). A more unstable atmosphere may result in jet streams that happen to form in an eastward- or westward-running direction.

"When you have this occurring in a complicated 3-D circulation, it can develop latitudinal temperature differences," Showman noted. "More water vapour means more temperature differences that change the stability of the atmosphere." However, a better understanding will have to wait for improved simulations. Lian pointed out that the simulated jet streams did not quite reach the high speeds of real jet streams. The current model also ignored some processes such as precipitation, evaporation and cloud formation. "We want to include as many factors as we can," Lian said. "That way, we can probably produce jet speeds similar to observations."

The findings were detailed at the 40th annual meeting of Division of Planetary Sciences of the American Astronomy Society in Ithaca, New York.

From <http://www.space.com/scienceastronomy/081017-planet-jet-stream.html>

## RAC

Support of the RAC Field Services continues. After more than a year of planning, research and writing, the new national RAC Amateur Radio Emergency Service (ARES) Training Manual has been completed and is available for download on the internet. See [www.rac.ca/fieldorg/racares.htm](http://www.rac.ca/fieldorg/racares.htm) for a link to the RAC ARES Training Manual page.



Bob Cooke, VE3BDB  
RAC Vice President of Field Services



<p>Top: Dave Green, VE3TLY, OARC President, presenting Peter Gamble, VE3BQP, of EMRG/Ottawa ARES with the Kantronics KPC3+ TNC. This will be used primarily to facilitate Red Cross communications in the west end of Ottawa.</p>	<p>Bottom: Dave Green presenting a free 1 year OARC membership to Brendan McDonald VA3BJM, recipient of the RAC Foundation Education Grant.</p>
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## **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.

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