

APR 85

# THE GROUNDWAVE



Club Call VE3RC

Repeater VE2CRA



**THE GROUNDWAVE**

Official Bulletin of the Ottawa Amateur Radio Club, Inc.

**Managing  
Editor****Contributing  
Editor  
Production  
Committee**

J. Gord MacKay  
VE3JMT  
Ernie Brown  
VE3ICP  
Archie McKenzie  
VE3NJY  
Kingsley Beattie  
VE3OFK

P.O. Box 1204  
Stittsville, Ont., K0A 3G0  
106 Hilliard Ave.  
Nepean, Ont., K2E 6C4  
2042 Haig Drive  
Ottawa, Ont., K1G 2K7  
1344 Kilborn Ave.  
Ottawa, Ont., K1H 6L4

831-1004  
225-7798  
731-3698  
996-6487  
523-2170  
994-4356

**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.

**THE CAPITAL CITY NET** meets every Monday at 2000 hours on the club repeater VE2CRA (146.34/.94) 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 Morgan, VE3GX. This feature appears on the Capital City Net as noted in the foregoing paragraph. To list items and make inquiries, call Ed Morgan at 733-1721.

**THE OARC EXECUTIVE** normally meets on the second Wednesday of each month in the Board Room of CFRA, 150 Isabella St., Ottawa, at 1930 hours. Contact the President to confirm the date of the next meeting.

**DEADLINE FOR COPY** is 4 weeks before the next meeting. Make yourself better known to fellow members and other amateurs, too, by giving us an article, technical or otherwise, relative to our hobby. They may get reprinted in far away places; and the family will be proud of you.

**REGULAR MEETINGS** of the OARC, Inc., are held on the first Wednesday of each month (except July and August) at the National Research Council Auditorium, 100 Sussex Drive, Ottawa, at 2000 hours. A bulletin board is available for posting notices of interest to other members about 1915 hours. Further details about each meeting is elsewhere in this publication.

**MATERIAL PUBLISHED** herein does not necessarily represent the official OARC viewpoint. Items may be reprinted by Amateur Radio or other publications provided that proper credit is given to the author and to the OARC, Inc.

**SAFETY BELTS, 2-METER RIG AND AN ENGRAVING PENCIL** are available for loan to club members. The 2-meter rig may be borrowed by members who are hospitalized. The engraving pencil (to mark valuables for identification in case of loss or theft) and the safety belts with pole straps are available to any member.

A \$100 refundable deposit is required for the belts. Contact the President for the 2-meter rig or the engraving pencil; and Paul, VE3ICV, at 820-6643 (West End) or Brian, VE3JKZ, at 523-1535 (East End) for the belts.

**RADIO AMATEUR CALL BOOKS** are available at many local libraries. Ask at the information desk.

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Minutes of OARC meeting, March 6th, 1985

The meeting was called to order by the president, Dan Holmes, VE3EBI at 2000hrs. The main speaker for the evening was introduced by the vice-president, Brett Delmage, VE3JLG. Tom Roach, historian, author, researcher took the audience to the High Arctic back to the early days of radio communication. At the end of his presentation Mr. Roach made a plea for any issues of QST Magazine prior to 1925. The Museum of Science and Technology would like to borrow them and have them photocopied.

The president's call for a PRO volunteer has been heard. Chris Rochefort has come forward to take up the challenge.

Gerry King has lost some equipment stolen from his car. Keep your eyes and ears open the hot stuff may reappear any time. Rick Van Gastel expressed some reservation as to the wisdom of spreading the information on the net. Perhaps, he feels, words should be passed on quietly to avoid tipping the culprit.

Ken Kendall, VE3IHX and Joe MacPherson VE3CAT, feel that all is not told yet on the subject of EMO. Some members of Regional Council still see a certain value in the services rendered by radio amateurs and the potential of that organization. So, for those of you who were already involved, stay tuned.

The conditions of eligibility for the Joe Norton Award were unveiled. See the Groundwave for more information.

Dave Goodwin Hill, as a Director of International Radio Sport Association, drew to the attention of the audience the existence of a magazine: International Radio Sporting. See him for more information..

CARF was approached by Parks Canada to have a phone network involving as many of the national parks as possible during National Parks Day. The control centre would be in Toronto. Regional Directors have information and would like to ask for the assistance of affiliate clubs. VE3 JSJ, national co-ordinator would be pleased to hear from you.

Mailes is looking for TCA issue of March 84 on behalf of the Ottawa and Nepean libraries.

Bill Deacon received thanks for the job done putting the Groundwave together. Meeting adjourned at 2205hrs.

Next OARC Meeting: 20:00 Wednesday April 3  
in the NRC Auditorium, 100 Sussex Dr.

Guest speaker will be YOU. Bring in that wonderful device that you built and that no ham should be without, and be prepared to spend a few minutes explaining why and/or how you built it as well as the interesting points about the construction or operation of it. "Home Brew" contest prizes will be awarded to three entrants. The first-place winner will also have his or her name inscribed on the OARC's "Technical Achievement Award" and will be able to hang this attractive plaque in his/her shack for a period of one year.

Note: Only OARC members in good standing are eligible to win a prize. If you "haven't quite got around to renewing yet" be sure to see our friendly membership chairman Peter VE3LBW before the meeting.

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Your club executive has been seriously disussing the future of THE GROUNDWAVE. This edition has been compiled by the club executive but this cannot continue. Unless a permanent editor comes forward it may be necessary to reduce the content of this publication in the future. Please contact Dan Holmes VE3EBI at 746-0968 if you are interested.

Submissions of articles are always welcome. Items for THE GROUNDWAVE may be mailed to the club's post box (see back cover) or delivered to Brett Delmage VE3JLG.

Thanks to our former Editor, Bill Deacon VE3UD, who has done an unequalled job of shaping THE GROUNDWAVE into one of this country's finest club publications, and who researched and implemented procedures to ensure timely delivery.

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The OARC now has a Public Relations Officer. Chris Rochefort will publicize club events through the media and will help us project ourselves and the hobby clearly and accurately to the public, always vigilant that observers do not walk away talking about "CB".

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Many are cold, but few are frozen.

## JOE NORTON TRUST AWARD

### FOR AMATEUR RADIO

The Ottawa Amateur Radio Club Inc. awards annually the Joe Norton Trust Award for the advancement of amateur radio. The amount of the award this year is \$800.00.

#### 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 the Department of Communication during the period June 1st 1984 to May 31st 1985;
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/her interests, achievements and plans to contribute to the advancement of amateur radio; and
4. Present him/herself for an interview if so requested by the judges.

#### RULES

1. Entries must be received on or before May 31, 1985. No entries received after that date will be considered.
2. The club will send acknowledgement 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 submitted before the deadline.
4. Finalists may be interviewed by members of the Executive of the Ottawa Amateur Radio Club Inc. or the panel of judges or both.
5. Submissions will not be returned unless accompanied by a self addressed stamped envelope.

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 Fund to be awarded in subsequent years.
7. The decision of the Executive of the Ottawa Amateur Radio Club Inc. in the selection of a recipient of this award is final.
8. The winner will be notified on or before August 1st.
9. The winner will notify the Ottawa Amateur Radio Club Inc. of his or her acceptance of the award no later than August 15.
10. The award will be made during the regular club meeting in the month of September
11. The winner agrees to have his or her name, photographs and address published in club bulletins, trade papers and on the airwaves.

SEND YOUR ENTRY TO BE RECEIVED NO LATER THAN MAY 31, 1985 TO:

The Joe Norton Trust  
Award for Amateur Radio  
The Ottawa Amateur Radio Club  
PO Box 8873  
Ottawa, Ontario  
K1G 3J2

CROSS WAVES #4

The amateur who was the subject of the interference case in Cross Waves No. 3 called with more encouraging news.

It was mentioned that I always monitor Cable channel E (145.25 MHz) in the vicinity of TVI complaints. I had noticed a very high leakage level which seemed to peak right in the Amateur's driveway. I say seemed to peak because these new digital "S" meters have crude resolution. Noticeable pilot carrier hum indicates very strong leakage.

Cable Company Responds

After clearing the TVI complaint I called the Cable company (Ottawa Cablevision) and received a not atypical question, "How do you know its leakage?" Bear in mind that many cable companies have in the past relied on a crude leakage monitor with sensitivities on the order of one millivolt. That's 1000 microvolts minimum detectable signal. That's the reason a sensitive 2m rig makes an ideal monitor. The only thing we'd need to do is to calibrate our receivers with known signals to give a more meaningful reading. Since there are all sorts of proximity and reradiation effects which occur in the presence of leakage we can use our 2m gear to look for gross anomalies. Next time you're out for a drive take a listen in your neighbourhood. Defective or deteriorating cable sheaths can emit some strong radiation. Fortunately, cable companies in this area have responded positively.

Happy Amateur

It did not take the cable company long to determine that a newly installed drop to the amateurs home had a damaged sheath. This was replaced and boosted TV reception and clarity by 100%. Now the Amateur is doubly happy, he can operate any band whenever he pleases and his TV reception is superb. Thanks to Ottawa Cablevision for their prompt remedial help.

Microwave Oven Interference

A previous report made mention of interference to a microwave oven, and some time has been spent in an effort to determine the validity of this.

Although I do not have precise details of how Health and Welfare Canada make their radiation measurements I do know that Canadian emission standards are ten times more stringent than American ones ie. 1 mV/cm<sup>2</sup> vs. 10 mV/cm<sup>2</sup> An interesting article about radiation appeared recently in "Broadcast Technology" discussing radiation in the vicinity of broadcast arrays.

To return to our reported oven interference which was described as follows: "The oven came on while we were out for a drive and we did not have a glass of water in the chamber." The complainant stated it was not possible to turn "off" the oven by the panel controls and they resorted to removing the plug from the wall. Their concern was a form of "thermal runaway" and I'm not absolutely sure a fire hazard would be present without a glass of water (thermal load) in the oven. Since CSA approved the device, I am sure a domestic fire hazard would be one of the least probable consequences.

#### Oven shielding/Susceptability

There is little question that 2.5 GHz radiation would escape from such an "RF" tight enclosure (Although, it could be wide open for 14 MHz radiation from the Amateur). Conducted susceptibility via the power lines is another matter.

The oven line cord acts as an antenna and as a direct connection to the outside mains. Very little protection is provided to exclude RF energy from entering the internal power supply via the line. The possibility exists that sufficient RF energy could affect DC voltage levels at the microprocessor and cause sporadic operation of the oven. It is even possible that under such circumstances the front panel controls could be "locked out". Anyone with a computer without a reset button has only one recourse - pull the line cord.

Tests were conducted over a one hour period during which time the Amateur's antenna was pointed directly at the complainant's house. There was no sign of abnormal oven operation even at the 1 kW output level keyed CW mode.

#### Keying transients

Keying transients or relay generated switching transients would have to be sufficiently high to initiate the sequence necessary to turn on the high voltage supply. In this case, and this particular oven, the cooking interval is retained in memory so a stray transient could trigger operation. Whatever would lock out front panel controls under this condition is unknown. From a single observation by non-technical observers (the homeowners) the case is not closed. Operation by the Amateur and spontaneous operation of the oven may be mere coincidence. Perhaps, appropriate measurements can be made at a later date to satisfy the complainants and shed further light on the actual cause. It should not be overlooked that a single power line transient could produce the same effect.

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To my knowledge, no other cases of sporadic microwave oven operation have even been investigated and I hope that this is an isolated instance.

In the past six months there have been over 65 Toroids bought by club members. In addition, 10 - 4 inch ferrite rods have found homes and I have orders for several more of each. I receive calls consistently to tell of the other successes in eliminating RF interference to stereos. There appear to be many more cases of audio rectification than I ever dreamed. Are Amateurs the only group to have to deal with this blight?

Ralph Cameron, VE3BBM  
Chairman, EMI Committee

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Equipment stolen

Al Oldfield VE3AND has suffered the loss of amateur equipment by theft from his home. A Kenwood TR2500 Handheld was taken and he would appreciate it if members would keep their eyes and ears open for any sign of this equipment.

Gerry King VE3GK had a considerable quantity of equipment stolen from his car recently. It consisted of an FT20BR 2m HT with speaker/microphone, 80 Watt amplifier and a clamp-on type of ammeter. Would anyone with information regarding any of these items please contact Gerry.

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It has been enjoyable putting together this issue of THE GROUNDWAVE for you. However, I am sure that many of you would also enjoy editing this publication; what better way to justify that expensive new computer and printer than to use the word processor for a really worthwhile application. I can now personally attest to the fact that the work takes only several evenings.

Your club executive has some interesting events in the works, some which haven't been held for years.. a summer picnic, a hidden transmitter (fox) hunt. We are in the initial stages of planning a public demonstration of Amateur Radio in a public place, such as a shopping mall. If you would like to organize the latter, or have any ideas that you wish to present, don't just sit there! Call any of the club executive members, or see us at a meeting. We would be pleased to assist you in developing your club to meet your expectations and ambitions.

Brett VE3JLG



Proud to be an Amateur Radio Operator

The March issue of THE GROUNDWAVE had an article on page 13 "WHY I WANTS TO BECUM A AMACHER RADIO OPERATOR".

This writer decided to reply by stating that no matter radio frequency you operate on, there is always someone out there who is willing to help.

This writer had been in constant contact with a well known former Ottawa Ham operator who now lives in Port Mouton N.S., Armand "Wiggy" Wiggleworth VE1US. Contact had been made on the 20 metre band and he was always willing to help. In 1981 he made arrangements with one of his neighbours for the purchase of a yoke of oxen. In April 1984 my brother Don of Rideau Bend Farms, Manotick and I put the two metre Yaesu FT227R on the dash of the cattle truck and headed for Milton, N.S. Along the route several QSOs were had with other HAMs which made the trip very enjoyable.

As we disembarked the ferry at Digby, N.S. and headed for Milton it was very hard to read a map in the dark. At about 5 a.m. while tuned into the Liverpool repeater, two hams, Bud MacNeil and Howie Henderson were having a QSO. We were able to join them and explain where we were heading and what we were doing. They stayed on the air and guided us to the doorstep of the Milton address and were willing to contact our friend Wiggy VE1US at a later time in the day, as it was too early to call him.

After loading the oxen, time had elapsed and we were in a hurry to catch the 1530 ferry back to St. John's, N.B. This meant we could not spend any time with Wiggy as planned, so we decided to call him. At this very time, a neighbour accidentally took down a one inch telephone cable while backing out his truck, so we contacted Bud and Howie (already late for work), who had been standing by on the Liverpool repeater. They in turn contacted Wiggy, who came on the two metre band and we were able to have a QSO on the way back to Digby. HAM RADIO MADE THIS A SUCCESSFUL TRIP.

On Thursday March 7, 1985 around 8 a.m. a hydro sub-station on King Edward Street took on fire, blacking out hundreds of houses and business establishments in the lower town of Ottawa. At 1800 hours, Joe Macpherson VE3CAT and Herb Tremblay of E.M.O. contacted Art Stark VE3ZS and Hap Cafe VE3MW who were net controllers for volunteers in this emergency situation. Responses were still overwhelming at 1900 hours when the power was restored. This proves that no matter where you are, who you are or what situation occurs, HAM OPERATORS are always ready to help, therefore I AM PROUD TO BE AN AMATEUR RADIO OPERATOR.

Russ Lowe VE3LOW

cards received, one is chosen each week for the "QSL of the Week Award," and the owner of that card is appropriately acknowledged. All 180 students in the English classes examine the color, design, and overall attractiveness of the QSLs.

WB2JKJ claims, "We are totally self-supporting. All of our equipment was purchased from the fund raising efforts of the students and myself. Even down to the postage, it's all done by the kids. It's very difficult to survive this way, but it makes for a great spirit of everyone pulling together. And besides, hams are great people. Without them, this wouldn't be possible. — Steve Ewald, WA4CMS

de SARC NEWS  
Scarborough Amateur Radio Club

A HAM RADIO TOWER . . . Why do people get upset when one puts up a radio tower? A few things in its favour:

IT DOESNT:

Squeal its brakes  
Screech its tires  
Blow its horn  
Roar its motor  
Slam its doors at ungodly hours  
Shine its headlights in your  
bedroom window  
Nor does it backfire.

IT DOESN'T:

Bite you  
Bark or meow  
Leave deposits on your property  
Dig up your garden  
Scratch on your door  
Widdle on your trees  
Nor does it dig up and scatter  
your garbage.

IT DOESN'T

Drop leaves that you have to  
clean up  
Grow branches over your house  
Drop fruit or nuts which block  
your downpipes  
Block your view like a tree or  
building  
Grow roots that damage your  
walk or driveway  
Nor does its roots plug your drains.

IT DOESN'T

Have boisterous parties  
Or play loud music  
Or have swimming parties through  
the night  
It doesn't ring your phone  
(accidentally?)  
Nor does it ride bikes across  
your lawn.

IT'S JUST QUIET AND HAS NOTHING  
TO SAY.

KEEP THIS UP FOR THE NEIGHBOURS.

. . . VE7BJ

de THE ONTARIO AMATEUR.

### IEEE 1984 CENTENNIAL MEDAL

Congratualtions to Ray Thornton VE3RT and Frank Rapp VE3RZ who were each awarded IEEE's 1984 Centennial Medal.

de CRRL NEWS

### CLIPPERTON ISLAND

An international team of 16 operators will try to put the famous Clipperton Island on the air from April 3rd to 10th. Using French call signs, they hope to be on 24 hours a day using all modes from six through 160 metres.

de CARF NEWS SERVICE

WASHINGTON (BS) State department officials here today announced that a pre-dawn raid has netted another shipment of a highly complex electronic component destined for the Soviet Union.

The super-sophisticated "7400 Quad Two-input NAND gate" as it is known in elite industry jargon, could have been used in video games, officials said, adding that the shipment had an estimated "street value" of at least \$10 million.

Other top officials, speaking under the condition that they not be identified, said the parts were worth about \$1000 apiece. "At least that's what we pay for them through the Pentagon's spare parts procurement program." commented one official.

Later reports from knowledgeable sources said that the "7400" components are manufactured in hidden factories in exotic jungle locations such as Malaysia and Puerto Rico and are blatantly sold over-the-counter in Radio shack stores within blocks of the Soviet Embassy.

"With enough of these super-hi-tech parts, the Soviets could have constructed the world's fastest video game," said one spokesman. "Such a game would be superior to current American and Japanese models because it would also serve as an excellent space heater, and we all know how cold Moscow winters are."

Commenting on the raid, an obviously pleased President Reagan said "It is obvious that one of America's greatest assets is its large pool of skilled youngsters ready to take the controls when the nation constructs its sophisticated space-based laser ICBM defence system. This technology would have given the Soviets the capacity to train THEIR youngsters to shoot down OUR missiles."

The Ottawa Amateur Radio Club, Inc. Box 8873, Ottawa, Ont. K1G 3J2

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President	Dan Holmes VE3EBI	33 Crownhill St Ottawa, Ont., K1J 7K5	746-0968
V/President	Brett Delmage VE3JLG	5-136 Woodridge Crescent Nepean, Ont., K2B 7S9	820-3940 592-4164
Secretary	Samson Pierre VE3JSP	Box 909, RR #1 Cumberland, Ont., K0A 1S0	833-2801 745-9411
Treasurer	Bruce Lauer VE3MJV	10 Winlock Crescent Nepean, Ont., K2G 3X4	829-9471 990-8987
P/President	Joan Powell VE3FVO	Box 390 RR #2 Nepean, Ont., K2C 3H1	825-4104
Directors	Russ Lowe VE3LOW	44 Herridge St. Ottawa, Ont., K1S 0G9	237-5093 236-0311
	Keith Bedal VE3GFI	125 Ridgefield Crescent Nepean, Ont., K2H 6T4	828-1870 998-2234
	Tom Bristow VE3OFM	117 Crerar Ave. Ottawa, Ont., K1Z 7P1	728-5998 521-8463
Repeater Chairman	George Roach VE3BNO	104 Strathcona Ave. Ottawa, Ont., K2G 3H1	234-0885 233-6242
Custodian & Archivist	Gerry Martin VE3CNJ	1771 Hutton Ave. Ottawa, Ont., K1G 1M1	731-3220
Net Manager	David Goldsmith VE3FM	6250 Fortune Dr. Orleans, Ont., K1C 2B1	824-0515 675-4671
Emgcy Coord	Ken Kendall VE3IHX	777B Springland Drive Ottawa, Ont., K1V 6L9	731-0892
EMI Comittee Chairman	Ralph Cameron VE3BBM	30 St Remy Drive Nepean, Ont., K2J 1A3	825-1634 225-2850
Membersh Chairman	Peter Hafichuk VE3LBW	118 Ivy Crescent Ottawa, Ont., K1M 1X6	745-0608 993-1740
Capital City Award Manager	Brian Summers VE3JKZ	2231 Hillary Ave. Ottawa, Ont., K1H 7H7	523-1535 996-7885