

THE GROUNDWAVE

RSO CONVENTION '84

October 5,6,7, 1984 - THE WESTIN HOTEL



Club Call VE3RC

Repeater VE2CRA



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THE OTTAWA AMATEUR RADIO CLUB, Inc. is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the Ottawa regional area and to the advancement of the technical competence 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 Ottawa regional area.

THE SWAP NET, a service of the Ottawa Valley Mobile Radio Club, Inc., is repeated on the Capital City Net and is conducted by Ed Morgan VE3GX. To list items and make enquiries, call Ed 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 the first Wednesday of each month. **SEE YOUR NAME IN PRINT!!** -- in national and international publications. Write an article for the **GROUNDWAVE** and watch it travel! Many local articles have been reprinted in Club Bulletins across North America.

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 at about 1915 hours. For further details about the next meeting, see Page 5.

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

SAFETY BELTS, TWO METRE RIG and an **ENGRAVING PENCIL** are available for loan to Club members. The two metre rig may be borrowed by members who are hospitalized and the engraving pencil (to mark valuables for positive identification in case of loss or theft) and safety belts with pole straps by any member. A \$100 refundable deposit is required for the belts. Contact the President for the two metre 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.



RSO CONVENTION '84

Hosted by -
OTTAWA AMATEUR RADIO CLUB

CONVENTION COMMITTEE

P.O. BOX 15806 STN. 'F' OTTAWA, ONTARIO K2C 3S7

The weekend of October 5-6-7 is fast approaching when the Radio Society of Ontario Convention returns to Ottawa for the third time. And have we got a show for you! Come join us at the new Westin Hotel, right in the centre of Ottawa, where the festivities start Friday evening with an Eyeball and dancing to a live orchestra. Saturday there is a program for ladies and non-members, but the real action is around the commercial displays and amateur papers and forums.

There will be a Department of Communications Forum-a DX contest forum-an Amsat paper and satellite tutorial-papers on both fast-scan amateur television and slow-scan colour TV-packet satellite communications-a session on antennas-a talk on VHF, the world beyond FM - RTTY will be covered and how to set up a basic amateur station-Antennas and BIG towers, Amateur emergency communications-EMI/RFI-Intruder watch-The computer in the hamshack-operating packet radio stations -- and that's just what we've arranged to date!

Of course, our movie theatre will be showing the latest amateur and technical films, and the prize room will be busy giving out those hourly goodies for your registration numbers. And how about those major prizes!

From Kenwood a TS 4305 High Frequency transceiver with microphone, external speaker and power supply. From Icom an IC 27A mobile VHF transceiver, and from Yaseau an FT 203R VHF Handheld. A desk top printer terminal, and for the ladies a G.E. microwave oven.

And there's the Saturday night banquet followed by dancing to Champ Champagne and his fourteen piece orchestra and a very light program for Sunday morning. What a way to spend a weekend!

Registration before September 1 is \$7.00 for RSO members/\$8.00 for non-members - \$8.00 and \$9.00 after. Ladies pay \$4.00 before September 1 and \$4.50 after. The Friday night Eyeball and dance is \$6.00 and the Saturday banquet and dance is \$27.00. The Westin is charging convention goers \$63.00 a night and this rate can be extended 2 days before and after the convention.

So come join us for a "Happy Thanksgiving" and watch for Amateur station VE3NCR on the air for further news.

Ottawa, Ontario - October 5,6,7, 1984 - THE WESTIN HOTEL



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P.O. BOX 15806 STN. 'F' OTTAWA, ONTARIO K2C 3S7

REGISTRATION

SEPTEMBER 1, 1984

<u>BEFORE</u>	<u>AFTER</u>	<u>AMATEUR PROGRAM</u>	<u>Number</u>	<u>Price</u>	<u>Total</u>
\$ 7.00	\$ 8.00	RSO MEMBER(s)	_____	at \$ _____	_____
\$ 8.00	\$ 9.00	NON-RSO MEMBER(s)	_____	at \$ _____	_____
\$ 4.00	\$ 4.50	LADIES & NON-AMATEUR PROGRAM	_____	at \$ _____	_____

ACTIVITIES

FRIDAY

2000-2400 Hrs Eyeball, dancing to live orchestra.
Cash bar _____ at \$6.00 _____

SATURDAY

**1900- Hrs Banquet followed by dancing to Champ
Champagne and his 14 piece orchestra _____ at \$27.00 ... _____

TOTAL \$ _____
(Canadian funds) _____

Please make cheque or money order payable to:

R S O CONVENTION COMMITTEE

NAME

ADDRESS
(Street) (City) (Prov/State) (Postal Code)

HOTEL REGISTRATION FORM WILL BE SENT WITH RECEIPT-APPLICATIONS RECEIVED AFTER SEPT. 1
WILL BE HELD AT THE REGISTRATION DESK.

** BANQUET TICKETS ARE LIMITED. RESERVE EARLY.

Ottawa, Ontario - October 5,6,7, 1984 - THE WESTIN HOTEL

WHAT NEXT?

The next regular meeting of the Ottawa Amateur Radio Club, Inc. will be held on Wednesday September 5th, 1984 at 2000 hours in the National Research Council Auditorium, 100 Sussex Drive, Ottawa.

The main topic for the September meeting will be *The Care of NiCad Batteries*.

How about "signing-in" at each meeting? A clip board will be located at each side of the auditorium as you enter. Your name listed here gives you an opportunity to win the door prize and helps the Executive in future planning.

At each meeting, a "suggestion box" will be located at the back of the room. We would appreciate any ideas, criticisms, compliments, etc. Just drop in a note.

Remember our Club Bulletin Board at the front of the room. It is set up at about 1915 hours on meeting nights. Come early, and make use of it!

Enjoy talking with other members of the Club; enjoy the meetings--see you there!

=====

FLASHBACK Number 6 -- by Gord Grant VE3DY

The number of times that the club year has been changed is not firmly recorded. Perhaps by the end of this series, we will have a more accurate count. However, in 1953, a change was made. The year had been October to September, with the elections being held in September, usually. It was felt by many that the active season should better determine the fiscal year. So in 1953, the Constitution was modified to make the year July to June. Summer was to be the lull used to plan for the following year and all sorts of exciting things dreamed up. And a few actually were!

This was one of the years when Jim Swail cleaned out his basement again. Probably prodded by Ethyl, he had a great long list of stuff at real bargain prices in the GROUNDWAVE. This evidently gave him some much-needed space to cogitate and experiment, because it is noted frequently throughout the year that he talked at the Club Meetings on many subjects.

During the early part of this year, a short year because of the change in year-end, Meade Wood VE3CMW was the Technical Advisor. He gave a most interesting talk about some of the workings of the RCMP during his time in the Western Division. He had some very amusing anecdotes about the operation of the "Brew Hounds". In making a search through the Callbook for something else, I recently came upon a Meade Wood VE7VW, now living in Vancouver. I'm sure that there are not that many Hams with that name--could easily be the same. Who will find out?

In May of that year, there was a visit to the NRC floating laboratory, the MV Radel II, hosted by the late Capt. H. Ross Smythe VE3FI. Later in the season, Charles Poole VE3OJ was posted to Alabama where he signed with a W4 call for a year. A successful Field Day was held at a cottage at Kirks Ferry, where Bab Armstrong VE3RF

-- Continued on Page 9

COMING EVENTS * * * COMING EVENTS * * * COMING EVENTS * * * COMING EVENTS

- July 14 The Tenth Annual Ontario Hamfest hosted by Burlington Amateur Radio Club at the Milton Fairgrounds. Weekend camping, prizes super-prize— HF station, flea market, etc.
- 5 Sept First meeting following the summer recess for the Ottawa Amateur Radio Club.
- Sept 14 Teleconference. The speaker will be Bob Heil K9EID on "Microphone Equalization For the Amateur." Look for it on VE2KPG around 1900 hours.
- Sept 23 The London Amateur Radio Club annual Flea Market at the Pot O' Gold Bingo Palace, Hamilton and Gore Roads, 8:a.m. to 2:00 p.m. This is a big one (80 plus tables) if you are in the area!
- 3 Oct The second meeting of the OARC after the summer recess.
- 5-7 Oct Radio Society of Ontario Convention. Need information, try Bob VE3KLG, Ken VE3GIR, Mike VE3LAR, Barry VE3BZW, George VE3BNO, or Andy VE3KIZ

LIGHTNING DAMAGE

With summer approaching and thoughts of lightning damage once again becoming a major concern, I would like to mention an incident which may benefit some.

Preparing to head north to the cottage country, I did the usual things to protect my radio equipment. I grounded all antennas, pulled the main plug leading to the power bar. The following equipment was plugged into the power bar: the Transceiver, linear amplifier, electronic keyer, video screen, computer and rotor box.

Satisfied that I had taken all the necessary precautions to protect my station, I headed north. Two weeks when I returned to the home QTH, I coupled the antennas, plugged in the power bar and met the unmistakable smell of burnt components. I shut down and began to look for the problem. Before reading further, can you find my error?

My investigation found the inside of the rotor control box to be in a charred condition. Lightning had taken the easy path available, down the rotor cable to the rotor control box which was plugged into the power bar then through other equipment plugged into the same bar and causing extensive damage to a complete station.

To prevent a recurrence, I made a simple modification to the rotor control box which I highly recommend to anyone using a rotor. I removed the eight wire terminal block from the rear of the control box which feeds the rotor cable to the rotor. I replaced the terminal block with an eight pin male and female Jones connector which can be easily mounted to the rear of the control box. It is now a simple matter to make a quick disconnect and thereby isolate the rotor cable from the rotor control box.

de Gordon Wright VE3ISG in the Guelph
Amateur Radio Club bulletin.

(On pondering a bit about VE3ISG's misfortune, I tend to worry a bit about the power bar almost as much as the rotor connection in that the power bar turns the whole shack into a network in spite of it being disconnected from the mains. The only real protection for expensive gear is a better path for lightning outside, well outside, the shack. Lightning gallops through crossed wires, leaps parallel connectors, and turns non-conductors into conductors in its mad surge. Anyone with a cavalier attitude toward lightning should look up the article that appeared in Electronics Digest May/June 1972 titled "Lightning: Complexity, Mystery, Danger." A few paragraphs from the article may whet the appetite. ED.)

" . . . Lightning is basically a long spark, a result of static electricity like the sparks that jump from hand to metal in winter.

The stepped leader is a breakdown, or ionization, of the air due to the high voltage. The air is an insulator separating the two highly charged regions of the cloud and the ground; the stepped leader is like a crack developing in this insulator because of the voltage stress.

The typical "crack" is filled with electrons and the atoms from which they have been torn (ions), and with electrons poured into it from the negative bottom of the cloud.

Scientists say that this particle-filled channel, about an inch in diameter, forms the core of the stepped leader, and that the outer portion of the stepped leader is corona discharge from the core. The high voltage of the stepped leader causes the streamers that leap up from the ground to meet it.

When the stepped leader contacts one of these streamers, electrons start pouring out the bottom and electrons all along the channel move down a few feet. This progressive movement of electrons, starting at the bottom of the channel, is what forms the return stroke. After all electrons in the channel have moved down a few feet, and those at the bottom have poured into the ground, the return stroke ends.

Power during the return stroke is not steady, but for a brief instant at its peak can reach a billion kilowatts. This heats the channel to nearly 60,000 degrees Fahrenheit, which is five times hotter than the surface of the sun.

This can set fire to trees, houses and other flammable structures, but not always — if the return stroke lasts less than 40 millionths of a second, there is not enough time for fire to begin, just as a person can pass his hand so quickly through a flame that he does not get burned.

After the return stroke ends, the "crack" in the air remains and possibly even spreads upward into a higher region of negative charge. When this happens a dart leader descends, greatly increasing the ionization of the channel and filling it with electrons. When it hits the ground another return stroke occurs.

The total amount of electricity discharged by a typical flash is about 350 kw/hrs, which would cost a person about \$7.00 on his electric bill."

 PLEASE BRING THIS PAGE TO THE ATTENTION OF YOUR YL OR XYL
 LADIES

Thanksgiving weekend October 5-7 is ham radio convention time in Ottawa at the new Westin Hotel (right beside the Rideau Centre). We hope the ham in your life will be spending at least part of that weekend at the convention; why don't you consider joining him there?

Consider: Spending time in the beautiful Westin Hotel

Letting your man take care of the parking

Perhaps a weekend being pampered in a luxury hotel with all the facilities at a very reasonable rate (\$63.00 a night).

Have a turkey dinner with no fuss followed by dancing to a live band. (Show off the new dress you just bought in the Rideau Centre).

One chance in 250 of winning a microwave oven or another prize.

Displays and demonstrations on plants, cooking, colour co-ordinating your wardrobe, and learn how to make corsages, making one to wear to the banquet free.

For only \$4.00 before, and \$4.50 after, Sept. 1.

All tickets for the microwave will be placed in the box even if you can't attend. (GREAT ODDS!)

All other prizes must be claimed between 2:00 and 3:30. (ie. register even if you can't come)

HELP

We want to set up craft tables to sell items made by ourselves and our friends. If you, or someone you know, makes anything that might sell: felt decorations, table centers, ceramics, knitting, stained glass, weaving, painting, crocheting, carving, sewing, plant propogating, please phone us. We will endeavour to sell your crafts at a price determined by you and afterwards return any profits and unsold items, all at no charge. If it doesn't sell you can always use it as a Christmas gift.

We want this to be 'our' show, not by 'professional' crafts people who have easier access to selling their products. The tables would be open from 10:00 till everything was sold or until 3:30 so we would need a few people to donate an hour or so each to man the (table(s).)

Even if you only have 1 crocheted doily or two pairs of mittens or 3 felt Christmas tree decorations we would like to display and try to sell your item(s). There is lots of time between now and October to create.

OR have you an interest you would like to talk about, or demonstrate your skill to a small crowd, or do you know someone who might? Does your neighbour sell Sarah Coventry, Mary Kay or Tupperware?

We want lots of involvement, opinions, advice, and help from everyone to make this a great convention.

Do you know anyone, a store owner, company manager, real estate agent etc. who might be kind enough to donate a prize or little hand-outs to us, their company name would of course, be advertised.

If you want more info, have any questions or advice or want to tell us about something, please call

Penny Sipkes at 225-1276

Betty Fraser at 726-0891

Marion Caskey at 224-6415

THE CONVENTION WILL ONLY BE AS GOOD AS WE MAKE IT. PLEASE HELP.

Flashback Number 6 -- Continued

volunteered to be cook. He did a great job, too! Twenty years earlier, in 1933, the General Radio Company introduced the Variac, and I am sure that some of the original units are still in use somewhere!

At the election held in June 1953, Phil Laprade VE3KN was named President and Mailes Dier VE3BCO, Secretary. There was a banquet in December, held at the Experimental Farm Cafeteria, where George Hart W1NJM of ARRL/QST gave a wonderful, impromptu talk about the advantages of affiliation.

Late in the year, there was a discussion at the Club about how to solve a communication problem that was faced by the St. John Ambulance, Ski Patrol Section. There was considerable apathy and little enthusiasm for getting into such a project. There were sparks, however, and these sparks were to be fanned into flame by an enthusiastic group of youngsters who still had some spirit of adventure. That should be the subject of the next episode.

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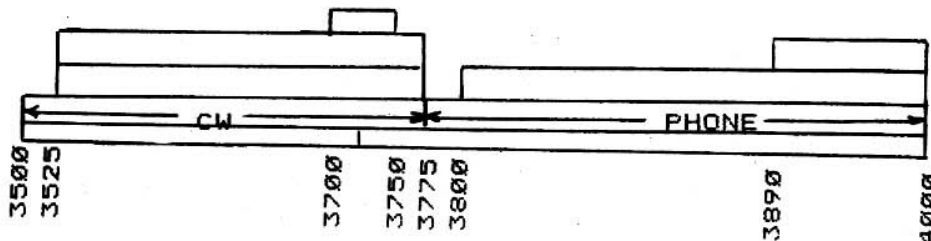
EIGHTY METRES

by Wally E. Clarke VE3CBE

Compared to 220 MHz discussed in a recent issue of the GROUNDWAVE by Brett, eighty metres is a D.C. band--not exciting, but useful to have around! However, there is something here for everyone: high speed CW vs novices; RTTY, FAX, SSTV and other experimental modes vs AM (ancient modulation); nets; round tables, ragchews and even some rare DX, or even rarer whistlers and long delayed echoes if one takes the trouble to look below the QRN and local signals.

80/75 is a local band during the daylight hours. DX signals come up out of the atmospheric noise toward dusk and fade after dawn, but not quite so suddenly as on the higher frequencies. Signals peak along daylight-darkness paths so South America will be heard almost any time during the evening. In the winter, loud signals from Europe will often appear at dusk and again around 0600 UTC or a bit later (European dawn) with a greater chance of contact during the latter opening due to reduced local activity at both ends. It is not unusual to hear the Eastern Europe prefixes peaking first: LZ, HA, HB, YU and UK are common, followed by I, D, F, SM, SP and G over the course of one to two hours. Similarly, west coast stations appear before midnight, followed by KH6, VK, ZL and (rare) JA. High antennas are an asset, not only to hear them through the power line hash and TV birdies, but also to poke through their noise at the other end.

Where does activity centre on this band? Well, the US allocation, the restriction prohibiting operation above 3.8 MHz in many countries and a few "gentlemen's agreements" decide this issue.



NOVICE, TECH.
GENERAL
ADVANCED
EXTRA
CANADIAN

EIGHTY METRES -- Continued

We note immediately the "DX windows" below 3525 kHz for CW and between 3775 and 3800 kHz for phone. Notice that the latter window is close to the "Canadian phone preserve", which makes for many stimulating conversations around 3775 kHz during DX contests. The action occurs as follows:

3500-3525 CW DX. The big guns crowd to the lower 10 kHz with signals designed to discourage all but the 5BDXCC nuts. Above this, the situation becomes more relaxed, with good DX to be worked up to 3550 by dodging the European commercials. (Even if you cannot copy at their speed, the Russians can be recognized by those T1 notes.)

3530-3600 General CW except for occasional South American SSB (the South American phone bands must extend everywhere!). Many area traffic nets operate here, with an occasional early morning European round table found near 3570 kHz. W1AW operates on or about 3580 kHz.

3590-3650 RTTY and similar machine services operate in this region, by consensus. 3590 kHz is maintained for RTTY DX (meaning that if rare stuff comes along, CW in the area will be blown away!).

3650-3700 The American Novice band is fun and interesting, too. VE3 can be rare DX to a W6 novice. When operating here, be careful to separate the "V" from the "E" to avoid becoming "F3XXX". All Americans seem to spell Ottawa with two "O's". The real tyro is not necessarily the slowest operator (although it would appear that a passing grade down there is around two words per minute), but will identify himself by giving out an honest signal report! The upper portion of the novice band is also used for Canadian phone patches and spill-over from local SSB nets. The region is swamped by CW QRM as the evening advances until the early morning hours, when occasionally European SSB ragchews or other DX can be heard.

3725-3775 The Canjun phone band. ONTARS may be worked during the day on 3755, followed by too many nets, patches and general bedlam between supertime and 2100 hours local time. Only the uninitiated call CQ. Those in the know join round tables. Clearing the frequency by parking ten carreres prior to net time is custom. For every American who strays below 3777, there will be four Canadians to tell him. On the other hand, for every rare DX station that appears, there will be four anonymous Americans breaking in to request that he listen up-band.

3775-3800 The DX phone window and happy hunting ground for both VE and W. The practice of DX lists is not so prevalent as it was a few years ago. In contrast to the CW window, rare DX occupies the top 10 kHz.

Above 3800 The (predominantly) USA phone band. There are a few loosely held conventions. State or local nets are usually found above 3900 kHz to encourage the General Class Licencee. SSTV is attempted on 3845 kHz. AM die-hards cluster below 3900 kHz and compliment each other on the fidelity of their 10 kHz plus signals or trade insults with "silly sidebanders".

EIGHTY METRES -- Continued

Well, there you have it. Here are a couple of concluding observations:

1. The eighty metre band is underutilized. There are segments below 3700 kHz where hardly a signal can be found or a contact made, even during the peak evening period. Often this entire portion is quiet during the day. Hopefully, when the U.S. phone band expands downwards, it will liven things up a bit.
2. The number of nets seems to exceed their usefulness and may be one reason why the above situation exists. Some stations will check into several nets over the course of a few minutes with no apparent purpose other than to add to the QRM and to the confusion as to who went where and when.

Why not spread it out a little, fellows, and call CQ after 9:00 pm? My concern is that as amateur traffic tapers off after the net, there is a noticeable encroachment by commercial and foreign stations. AM broadcasting on 3995, XFG-2 on 3700, CTP on 3718, RTTY on 3755 and most recently, the young lady at 3767 are examples to remind us what has happened to 40 metres, and what could happen to eighty unless amateurs themselves take action to protect the band.

=====

BELL SYSTEM REORGANIZED

Courtesy "Disconnect" Magazine via the RaRa RAG

The Wall Street Communications Association Board of Directors has issued the following clarification of the Bell divestiture: AWATTIO BMT

Many Bell employees have questions about Divestiture. To end any confusion, we present the following concise explanation:

First, a fully separate subsidiary (FSS) will be established for the unregulated competitive areas of communications. Both the regulated and unregulated companies will be owned by AT&T. Next Data will be bundled with the Network. Both, in turn, will be divided into bundled and unbundled segments. The bundled segment will be called DATAWORK and the unbundled segment will be called simply NET. The unbundled NET Department will be merged with the unregulated, but bundled Marketing Demand Segment which will oversee the Phone Centers. The Phone Centers will be expanded and merged with a fast food chain. Residence Services will be split and merged with Building Services.

The Annoyance Call Bureau will now handle collections. Special Services will be renamed Perplexing Services and will be merged with BPOC. Installation and Repair will be abolished. Their functions will be handled by Sears on a mail-order basis. All Dimension PBXs will be sold by Heath in kit versions. Bell Labs will merge with Radio Shack and will produce a new phone system called the Trash-85. Western Electric will move to Singapore and be renamed Eastern Electric. Eastern Electric will then merge with Western Union. For clarity's sake, the merged company will be called Eastern Western Electric Telephone, Telegraph and Data Corporation. On every Tuesday at 4 pm, when MUZAK stops, all employees will change seats. nals or trade insults with "silly sidebanders".

We hope this simple explanation will clear up any questions you might have.

THE OTTAWA AMATEUR RADIO CLUB, Inc
P.O. Box 8873
OTTAWA, Ontario, Canada
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