APRIL 1991

OTTAWA
AMATEUR RADIO CLUB

NEXT MEETING WILL BE HELD
WEDNESDAY, APRIL 3, 1991

GROUNDWAVE

CARF

CRRL

AMSAT

Club Call VE3RC Repeater VE2CRA

VE3LXM

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

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	Dave Parks, VE3GSA	225-1206	
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Repeater Chairman	Harrie Jones, VE3HYS	739-9365	738-2372
Net Manager	Wayne Greenough, VE3JSQ		
EMI Committee Chairman	Ralph Cameron, VE3BBM	825-1634	225-2850
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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 National Capital Area; and to the advancement and achievement of club members.

REGULAR MEETINGS of the OARC, Inc., are held on the first Wednesday of each month (except July and August) in the Champlain Room (2nd floor of the Old Teacher's College) of the RMOC HQ complex on Lisgar St., Ottawa, at 1930 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.

PACKET RADIO MEETINGS will be held at 7:30 p.m. on Nov. 29, 1990; Jan. 31, 1991; March 28, 1991; and May 30, 1991, at the McNabb Community Centre, Percy and Gladstone. This is an OARC technical meeting open to all who have an interest in packet radio.

THE OARC EXECUTIVE normally meets on the second Wednesday of each month at 1930 hours. Contact the President to confirm the date of the next meeting.

DEADLINE FOR COPY is the second Wednesday of each month. Make yourself better known to fellow members and other amateurs, too, by giving us an article, technical or otherwise, relative to our hobby.

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.

JUNIOR MEMBERSHIPS - To encourage young people to join the club and to participate in amateur radio, the club is opening a junior class of membership. Dues will be at a 50% discount but the junior member must pick up his/her copy of the Groundwave (preferably at the meeting).

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

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 members. For the belts, a refundable deposit consisting of a cheque equal to the replacement value of the belts is required. 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.

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.

PACKET RADIO VOICE NET meets following the Capital City Net on VE2CRA at 2040 hours. This is an informal net to answer questions about packet radio, pass along operating hints and provide information for future packet operators.

THE SWAP NET is a service provided and conducted by Ed Morgan, VE3GX. This feature appears on the Capital City Net, noted in the foregoing paragraph. To list items and make inquiries, call Ed Morgan at 733-1721.

POT-HOLE NET is a SSB/HF net sponsored by the Ottawa Valley Mobile Radio Club, and conducted every Sunday at 1000 hours on 3.760 Mhz. All amateurs are welcome to check in. The Swap-Net is a regular feature.

POT-LID CW NET is an informal slow-speed CW net sponsored and conducted by Ed, VE3GX, and meeting every Sunday, except during July and August, at 1100 hours on 3.620 Mhz, to promote interest in CW and CW procedures.

REPEATERS

VE2CRA	Voice	146.94/34 443.300/448.300
VE3OCR		223.34/224.94
VE3OCR	Packet	145.01(sx) Inter city links
VE3OCR	Packet	145.07(sx) Local Area net for QSO and Packet BBS.
56 kbps	Packet	220.55/433.55
VE3XDX	DX Info	146.25/146.85

For further information, please contact repeater chairman.

MINUTES OF THE OARC GENERAL MEETING OF MARCH 6, 1991

The March general meeting of the Ottawa Amateur Radio Club was called to order at 1938 local on March 6, 1991. The vice-president VE3PWJ took the chair since the president VE2ZP was the feature speaker for the evening.

The first order of business was the welcoming of visitors. At least 5 prospective amateurs identified themselves, as well as VE3CDJ and VE3MVV.

The CARF bulletin was presented by VE3EBI.

Dave Parks, VE3GSA, said that he felt there was no need for him to present a CRRL bulletin, since the contents of the CRRL bulletin are generally the same as the CARF bulletin.

The feature talk of the evening was by VE2ZP, on the subject of contesting.

There being no further business, the meeting was adjourned at 2123.

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*                                    *
*   April meeting is HOMEBREW NIGHT  *
*     Show off your pet project!!    *
*          Win big PRIZES!!          *
*                                    *
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NOMINATING COMMITTEE

If you would like to stand for any position on the Executive, the club needs you. Just talk to Paul Cooper, VE3JLP, or Clare Fowler, VE3NPC. If there are enough volunteers we won't have to send out the press gang.

FEATURED TALK - MARCH MEETING

Dave Goodwin, VE2ZP (our beloved Pres.) gave us his advice on contesting. He had some good stories and a humorous video. He also had some tips as follows:

1) The station should be ergonomically designed:
   -comfortable
   -uncluttered
   -controls should be conveniently located
2) A good set of antennas brings about flexibility
   -two antennas per band
   -different heights or polarization, e.g., a vertical and a tribander
3) Consider your tactics
   -choose your classification to match your equipment
   -pick an optimum balance between number of contacts and multipliers

MEMBERSHIP CHAIRMAN

The Club's new Membership Chairman is Mike Babineau, VE3WMB.

APRIL MEETING

The April meeting is homebrew night. Our feature talk will be given by Sandy Cameron, VE3AAC, who will screen a videotape on the CJOH mobile satellite earth station and, subject to availability, Don Patterson, VE3AAW, will have the vehicle on show outside Regional Headquarters.

E.T. CALL HOME

The Science and Technology Section of the Nov. 10 1990 Economist has a fascinating article on the search for intelligent life in nearby solar systems. In 1960, Frank Drake, a radio astronomer at the Green Bank radio telescope, turned to listening for radio messages from other intelligent species. Technology has advanced such that projects soon to come on line will be able to scan specific frequencies in a millisecond what it took 200 hours to scan in 1960. The search is concentrated in the 1 to 10 GHz range, radio beacons as narrow as .05 hertz are scanned.

By using electronic filters incoming signals can be split into 8M channels each of which can be analyzed separately. A band 400,000 Hz wide can be studied at one time. A new band can be scanned every 20 seconds. Even at this rate it will still take 4,000 years to look at every frequency between 1 and 10 GHz. Bigger systems are in the planning stage which will allow 6 billion channels to be examined at a time. To eliminate redundant or unlikely frequencies, some effort is being given to centring the search around specific frequencies such as the frequency at which hydrogen absorbs and emits radio waves, 1.42 GHz. Doppler shift effects have also been considered. Scientists have assumed that any species advanced enough to send such a signal would also take such variances into account.

The search for radio signals from outer space has taken on new urgency as QRM has started to rear its ugly head in these upper reaches of the spectrum. Satellite broadcasting and portable phones have resulted in pressure from commercial users to gain access to frequencies possibly used by E.T. and friends on their ultimate DXpedition. The unanswered question at the heart of all this research will be what to do if or when a signal from a distant life form is monitored...and how does one get his/her/its QSL?

de Michael Pilon, VE3BUP

TREASURER'S NON-REPORT

I'll skip the business part entirely, this time.

There are a lot of new hams around, and it seems a lot of them have the same questions. What should I get? How do I know how much to pay? Is used gear any good?

To answer the last question first, a firm yes. Used electronic equipment is usually in very good shape. It also tends not to depreciate nearly as fast as new stuff. In practical terms, that means that you will probably be able to get most or all of your money out of it when/if you decide to sell it. When "kicking the tires", check the thing for dents, water damage, bent or missing controls and other signs of physical abuse. If you can plug it in and check for smoke, that's even better. If the box has a receiver in it, you can see if anything comes out of the speaker.

On to the hard question.. "How much?" Well, that depends.. on how old, what shape, how much it cost when it was new. You can find out how old it is, how much it sold for, and maybe even find out how people felt about it when it was in its prime. The source of all this info is old magazines. There are two good sources of old ham magazines. First is other hams, who are often packrats. If you or the owner of the magazines can narrow the search down to an interval of a few years, that makes the job easier. The second source for magazines is the local libraries. Public libraries tend to toss older magazines, but the university, corporate and government libraries tend

to keep back issues. Here at Carleton U., for example, QST from at least the fifties is on the shelves. I think they might have older ones in storage or on microfilm. Look for advertisements or product reviews. A few years later, look for articles about modifications to the equipment or improvements. Also check the classified ads of recent back issues to see what individuals are asking for that equipment, or for other items of a similar vintage. There are also publications such as "Nuts and Volts" and such things. If you can find one of those, you can get a good idea of what the market in used gear is like. Such papers are rather rare around here, though. There is usually lots of variation in the asking price for equipment, but if it is currently available new, then the asking price is likely to be around 60-75% of the new price. In this case, the new or used decision comes down to ...how much value do you put on warranty and service. For older equipment, which has been off the new market for a few years, something like 50-60% of the original price is more likely. The prices asked will vary depending on the demand, on whether or not there is a service manual, parts availability , the number of buyers around and how badly the seller needs the cash to buy the latest toy. Its just your bad luck that you are getting started at the same time as a lot of other people.

On to the first question.. What do I want? First decide what kind of operating you want to do. Someone who is an apartment dweller who has decided to try HF radio from their car, or while camping, rather than put up with apartment operating hassles will have much different needs from the ham who has a big lot, lots of technical savvy and a good toolbox. Assuming the following: you want to operate from 120V only have enough room to leave your radio set up when you're done, don't have a lot of technical knowledge, but you can solder, etc., are looking for the best ratio of performance to cost, are looking for a machine that will survive your mistakes want, something you can learn to operate without taking a course, I would look at the last of the transceivers of the big three (Icom, Kenwood, Yaesu) that used vacuum tubes in the output stages. If you want to spend less, then look at machines with analog dials rather than digital ones. Many of the machines of that era made the digital readout an option. I would not recommend starting out with less than about 50 watts output, and I wouldn't bother using more than around a hundred watts. Making lots of contacts (which is the whole point, when starting out) when running low power takes some level of skill. I'd leave QRP operation for later. At the same time, running a kilowatt in an urban area is asking for neighbour problems. That can wait for later in your career also.

If your budget is really tight, then go further into the past. Rigs of the sixties are still quite usable, although they will need more care. The gear driven dial mechanisms will need oil. They may need to be left on for hours before they have stopped drifting. They will always take up more space and give off more heat than their younger cousins. But the bottom line is that they work, and will get you on the air ... so check out the flea markets, the swap nets, the classifieds in ham magazines, dealers (some of 'em do have used stuff that was traded in), and the ol' ham to ham grapevine (often the best source of a good deal).

I,m typed out, so ..73 mike k. VE3FFK

Watch this space for
information about our
Fall Flea Market

INTERNATIONAL REPLY COUPONS
(Part 2)

Since not many of us have stamps for rare DX countries and yet want to make it easier for that DX op to send us his prized QSL card by making sure his postage is paid, many hams send IRC's. These coupons are redeemable for stamps in the DX op's home country, and thus our problem of buying stamps for a foreign country is solved. Many rare DX'ers and DX managers receive thousands of IRC's and are willing to sell them at a discount. I think that fifty cents is the cheapest I've seen. They cost over a dollar at the Post Office. Keep an eye out at hamfests or ask an avid DXer where to get them. Friendly post offices will redeem them in stamp denominations of your choice. I have exchanged one IRC for 78 once cent stamps and five IRC's for 78 five cent stamps in the past. It may be valuable to reproduce the exact definitions in the Canadian Postal Guide Part II here. Every Post Office and Substation has a copy of this guide so there is no excuse for them not to know how to deal with them.

(Note: This is the second of three segments on the subject of IRC's prepared by VE3DKJ for the Hamilton Amateur. The other segment will follow in the next issue of the Groundwave, Ottawa.)

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Wouldn't our days be drag and long
If all went right and nothing went wrong
And wouldn't our world be dull and flat
If there was nothing to grumble at

de CARF New Bulletin

APRIL FOOL

Back in the olden days when I was a kid, we looked forward to April First as April Fool's Day. The 'fool' then was the target of the prank while the perpetrator was the author. The most amusing of the pranks caused a temporary loss of dignity, the worst were dangerous or ugly. Typical of the better pranks, many a town awakened to see a Model T Ford astride the roof ridge of the town auto repair shop; this before the advent of high lift cranes.

Through out town a good deal of April foolery focused on the rest rooms along the back lanes. The architecture of these shelters suggested a certain instability to the small buildings and, of course, to the mindset of the "pusheroverers. So over they went except for Grandpa's pride and joy.

Grandpa's loo filled a space between two out buildings so it could only be approached from the house side with the risk of being seen or through the dark corridor from the lane. After a couple of years of getting pushed over, Grandpa put the backhouse on greased skids so that a light push moved the whole affair ahead about five feet uncovering the pit and a pull would move it back to normal. That is the way it stayed through April Fool's night and day for years to come.

The outhouses are gone, for the most part, but the intellectual descendants of the pranksters are round and about. Even on the air, like the chap who took his bootleg setup out on the freeways for a little buttinski with three different police forces at the same time. His comment on being apprehended was a bragging, "Guess I had you boys going awhile." Now there's a chap who would be good with outhouses.

Gord VE3JMT

IN CASE YOU MISSED IT

There are indications that the DOC is planning to take the 220-225 MHz amateur 'Primary Allocation' band for commercial use. This appears in the 1990 RABC annual report which will appear in the April issue of The Canadian Amateur magazine. (Item 7, CARF New Bulletin 3-91.)

On 3 January 1991, U.S. Congressman Jim Cooper (D-TN) introduced H.R. 73, the 'Amateur Radio Spectrum Protection Act of 1991'. "Amateur radio operators tell me that they have already lost over 100 MHz of spectrum due to decisions by the FCC and I don't want to see them lose any more" he said.

The bill would amend the Communications Act - the 1934 legislation that created the FCC - to prevent the agency from squeezing Hams out of spectrum without compensating them with equivalent spectrum. There is no immediate threat of FCC reduction of amateur spectrum at this time as there was with the recent reallocation of the 220-222 MHz band. (Item 8, CARF News Bulletin 3-91.)

CONGRATULATIONS - U.S. FCC SOCKS IT TO FREE-BAND VIOLATORS. The FCC made an organized mass bust of so called free-band operators in the 25-28 MHz bands. A total of 144 violators were nabbed in December 1990. An average fine imposed was $1,000. Several were fined $2,000 for repeat offenses. Refusal to allow FCC agents to inspect their stations drew an additional $600 fine. Total amount fined in the free-band sweep was a whopping $147,000. According to the FCC staff, the equipment was typically modified CB or Ham gear, often used with home-brew or illegally manufactured linear amplifiers. The most common radio involved was the infamous Uniden 2510 10 metre transceiver running 20-25 watts.

The FCC were also busy at a personal computer industry convention in Las Vegas. They issued $200,000 in fines to exhibitors who offered to sell them non-FCC certified computer equipment. (Item 9, CARF News Bulletin 3-91.)

DOC has released a new printing of Radio Information Circular RIC-17, entitled Electro Magnetic Immunity (Radio Sensitive Equipment). Of the hundreds of suppliers of domestic electronics equipment included in their survey only two, Matsushita and Toshiba responded by detailing where, who, and how to contact company personnel to resolve EMI related problem. Get a copy of RIC-17 from your local DOC office. If concerned with potential EMI problems recommend a supplier who follows the principle of Repair, Replace, or Refund. (Item 1, CARF News Bulletin 4-91.)

The Citizens Forum (Spicer Commission). Canadian Amateurs! Do you wish to take part in this non-partisan dialogue on Canada's future. If you do there is an on-the-air-Forum on 14.25 MHz every Sunday on 1800 UTC, net control Ottawa stations Dan VE3EBI and Alan VE3LNH. Your comments will be forwarded to Chairman Keith Spicer. If you wish to telephone and give your views to an interviewer, please call 1-800-66-FORUM. (Be sure to dial the letter O and not the number zero). Les Canadiens appelent au numero 1-800-56-FORUM svp. Let's hear from you. (Item 3, CARF News Bulletin 4-91.)

BANNED COUNTRY LIST: The September 1990 issue of The Canadian Amateur magazine published a copy of the DOC RIC-3 which included a list of countries that forbid radio communications with Amateur stations under their jurisdiction. They are the following: Ango, Burma, Ethiopia, Ghana, Iraq, Saudi Arabia, Suriname, Thailand, Zaire. (Item 9, CARF News Bulletin 4-91.)

IS THE PEN MIGHTIER THAN THE KEYBOARD?

Bleenk Bleenk Bleenk. The computer operator uses a pen to touch three corners of a large piece of paper attached to a digitized pad and then prints her name. On the computer screen, each letter that she writes pops up immediately. Called pen based computing, the technology is generating considerable excitement and will help change the way we use computers.
Today, computers are keyboard-bound. If the operator wishes to add information he/she will have to type it. That's OK for high speed typists. But people who hunt and peck with two fingers might work faster with a pen.

Editing what you've written? A pen is much faster. No need to type direction keys on a keyboard. Just place the pen where you wish to make the change. Need to delete a word or a sentence? Just scratch it out with the pen. Want to insert a letter or a word? Write in a little caret just the way a proofreader would, then write the letters you want to insert. Some experimental models let you do this directly on the screen.

The computer understands what you write by recognizing the strokes that you make. Take the capital letter "E." The Microsoft Corporation which is working on a pen based system has found 484 different ways to write that letter. Some people might start with the bottom horizontal line and draw a right to left, for example. The computer has to recognize all these variations. By the end of this year, Microsoft and Go Corporation expect to release competing standard operating systems for pen based computing. These systems will allow software and computer companies to begin building products that use the technology.

One of the biggest immediate uses will be in portable computers, especially the models that allow you to write on the screen.

Anyone who has tried to make computer notes in a phone booth will understand why it is almost impossible to talk on the phone, (receiver propped on a shoulder), hold the computer with one hand and type with the other. A quick scribble with a pen is much easier. If the scribbling can be done directly on computer screen, then immense possibilities begin to emerge. Grid Systems Corporation already markets a lightweight computer that allows salesmen, clerks, and government workers to fill out specialized forms with a special pen. The new operating systems should allow more general uses.

Executives could update their electronic calendars while on the go. Secretaries could take dictation, then feed their notes directly into a word processor without retyping. (Only printed letters are recognized so far. Researchers expect the software will eventually be able to recognize cursive writing as well).

CIC President James Dao thinks desktop computers will also use the technology. Corporations could make new workers immediately productive because they could write and not type. They could set up a security system that would recognize an individual's signature. Even children would benefit from a pen, Mr. Dao says.

Some observers say pen-based computing will introduce computers to a new segment of the population. But only when researchers create a reliable system that recognizes voice as well as handwriting will the keyboard fall from its preeminent position.

With thanks to Laurent Belsie and to Splatter, the magazine of the York Region Amateur Radio Club.

MILLER DX CLUB
MDXC AWARD PROGRAM

GENERAL RULES:
1) Miller DX Club issues these certificates and cup to any licensed radio amateurs or SWL's throughout the world.
2) No mode limitations.
3) The same MDXC-member can be worked several times on different bands (except "MDXC" cup).
4) The fee is 10 IRC, $4US, DM10 or UK3 pounds for each award (except "MDXC" cup).
5) Do not send QSL's. Send GCR-list to the awards manager:
   Vlad P. Lifar, RW4HZ (ex UA4HJA)
   Box 2717
   445039 TOGLIATTI-39
   USSR
6) To join the MDXC: Provide proof of earning 20 different awards and 1 (one) listed for MDXC.
   Fee for joining is 15 IRCs, $7US, DM15 or UK4 pounds.
7) Every year Miller DX Club has activity days in January (3rd complete week) and in May (3rd complete week).

" W-MDXC-M " AWARD

REQUIREMENTS: All contacts on or after 1.1.1989 count for this award.
EU-stations: must have 5 QSO(SWL) with our members;
outside EU: must have 2 QSO(SWL) with out members.

" THE DON STEPPE " AWARD

REQUIREMENTS:
1) All QSOs/SWLs on or after 1.1.1986 count for this award.
2) QSOs/SWLs must be made with MDXC-members and stations from oblast No. 150 of the USSR (RA/RV/RW/RZ6L,UA/UV/UW/UZ6L).
3) QSO/SWL with one MDXC-member at least is necessary.
   MDXC-member.....2 points
   station from ob1.150 of the USSR..1 point
   EU-stations: must have.....15 points
   outside EU; must have.....5 points

" MIKHAIL SHOLOKHOV " AWARD

The award is dedicated to the memory of the famous soviet writer Mikhail Sholokhov (1905-1984).

REQUIREMENTS:
1) All QSOs/SWLs on or after 24.5.1989 count for this award;
2) QSOs/SWLs with MDXC-members and countries in which Sholokhov's literary productions was published are valid;
3) QSOs/SWLs with applicant's country is invalid.
   EU-stations: must have 5 QSO(SWL) with MDXC-members & 10 countries;
   outside EU: must have 2 QSO(SWL) with MDXC-members & 5 countries;

List of countries good for " MIKHAIL SHOLOKHOV " award

VY, CO, CT, CX, EA, F, G, HA, I, JA, JT, LU, LZ, OD, OH, OK, P5, PY, SM, SP, SV, TA, VE, VK, VU, W, XE, Y, YO, YU, ZL, JW, 7X.

"MDXC " CUP

REQUIREMENTS:
1) All QSOs/SWLs on or after 1.1.1986 count for this cup.
2) Must have 2 (two) awards from MDXC Awards Program and QSOs/SWLs with 15 different MDXC members.
3) The fee is 50 IRCs, $20US, DM45 or UK15 pounds.

" CROSS " AWARD

REQUIREMENTS:
1) All QSOs/SWLs on or after 1.1.1986 count for this award.
2) Given for confirmed QSOs/SWLs touched by the 49th degree N Latitude and 41st degree E Longitude.
   Valid countries: 49N - BY, DL, F, JT, OK, UA (European part RSFSR), UA (Asiatic part RSFSR), UB5, UC7, VE, W.
   41E - ET, HZ, TA, T5, UA (European part RSFSR), UF, YI, YK, 4K1 (any station from Antarctica), 5Z.
3) Applicants must have: 49N - 10 countries,
   41E - 6 countries.

" 16Z-PX-A " AWARD

REQUIREMENTS:
1) All QSOs/SWLs on or after 1.1.1986 count for this award.
2) EU-stations: must have 50 different prefixes of the 16th Zone (WAZ), outside EU: must have 35 different prefixes of the 16 Zone (WAZ).

List of MDXC members
(DECEMBER 1990)

RW4: HZ (ex UA4HJA)
RA6: LJD LKL LRR LTS
RV6: LB LD LF LG LQ
RW6: LF LJ LK LL LO LP LQ LR LU LX LZ (ex UA6LMT, RU4H/RW6LZ)
RZ6: LXG LXL LXN LXR
UA6: LLX LQQ LQZ
UV6: LCM LHF LJA LJG LKE LKF LLA LRO
UW6: LB LE NP
UZ6: LA LB LC LF LZZ