

DECEMBER 1992



NEXT MEETING WILL BE HELD
WEDNESDAY, DECEMBER 2, 1992

GROUNDWAVE



Club Call VE3RC

Repeater VE2CRA

VE3RC

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

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Secretary	Brian Summers, VE3JKZ	523-1535	836-6860
Treasurer	Mike Kelly, VE3FFK	722-5918	788-5782
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	Doug Yuill, VE3OCU	567-2700	230-1741
	Ken Willing, VE3CCV	733-9140	225-9776
Packet Group Chairman	Eric Taada, VE3SGG	749-4264	998-9805
Repeater Chairman	Harrie Jones, VE3HYS	739-9365	738-2372
Net Manager	Wayne Greenough, VE3JSQ	836-5320	724-5464
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 Oct. 3, Nov. 28, 1991, Jan. 30, March 26, May 28, 1992, at the Group Lobby Room, Museum of Science and Technology. 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	
VE3DX	DX Info	146.25/146.85;	packet 145.11(SX)

For further information, please contact repeater chairman.

MINUTES OF THE OARC GENERAL MEETING OF NOVEMBER 4, 1992

The President called the meeting to order at 7:35 p.m.

The following visitors were introduced: Bob, VE3TIX, and Randy, VE3RWW.

Al Oldfield, VE3ANO, made reference to a need for amateurs to assist in an upcoming emergency measures training activity.

Richard Hagemeyer, VE3UNW, requested assistance in maintaining contact with a family member in the Armed Forces who is being posted to Egypt.

Peter Hafichuck, VE3LBW, reported on the recent flea market. Initial estimates are that the Club will net approximately \$1,300; although it was noted that some outstanding invoices are still expected.

It was proposed by VE3IQ, and seconded by VE3JHT, that Peter and his crew be given a hearty round of applause and congratulations by Club members. Unanimously approved.

It was proposed by Richard Hagemeyer, VE3UNW, and seconded by Mike James, VE3PDE, that newly licensed amateurs be given a one-year free membership. Following a short discussion, the motion was carried unanimously.

Richard Hagemeyer, VE3UNW, spoke concerning his plan to implement a course leading to the Advanced Licence. It was proposed by Richard, seconded by VE3ADZ, that the executive "set up a committee to examine the feasibility of a course leading to the Advanced Examination. Prior to implementing a course, membership approval shall be sought".

The motion was unanimously carried.

The main speaker of the evening, Dave Yuill of Surnav, gave a presentation on the Global Positioning System (G.P.S.). A video tape was shown and samples of receivers were on hand to view.

Following coffee break, Barry Hall, VE3BXH, and a colleague demonstrated their home-made 2m ground plane, 2m long boom Yagi, and 70cm helical home constructed antennas.

The meeting concluded at 9:50 p.m.

Brian Summers, VE3JKZ
Secretary

DECEMBER MEETING

Peter MacLaren, VE3JB, will talk about a Personal Communications System

Remember the April meeting will be Home Brew Night. Get started now!

LAST FIELD DAY

Our station was tops in its category 1A. Contest details are in the November QST.

FLEA MARKET 1993

We need volunteers for next year's flea market. Join a successful team - we can use your help. Call the Executive to volunteer.

VEHICLE GENERATED RFI

Here is yet another concern for amateurs to investigate when purchasing a vehicle - that is check for internally generated RFI on the bands you intend to use.

The case in point identifies a problem experienced by Lee, KG7OW, with the purchase of a 1991 Cutlass Ciera and the installation of a mobile rig. When the set was tuned to 146.82, the RFI was so bad it could not be squelched out. Tuning to other frequencies did not detect any RFI. The dealer could not suggest a solution but countered that the 2m equipment was a non-standard item. No satisfactory response was forthcoming either when the ham suggested what would happen if the car was purchased by a police department and the interference was on their channel.

Tests were conducted to establish the source of interference using a hand-held radio. The RFI was traced to the ignition module and was most intense when the set was oriented vertically (most man-made noise travels vertically). It could be completely nulled out when the set was turned horizontally. By the way, this problem only exists after the vehicle has warmed up. Is this an isolated case? Apparently not. Lee mentioned a friend of his noted the same problem when a non-ham visitor with a similar car visited him and the 2m rig was used to detect the interference. Another ham observed a similar problem with a 1990 Chev S-10 truck.

What is the cause of this RFI? Could it be a defective oscillatory circuit within the module or is it an inherent circuit design fault? The proliferation of electronic gadgetry on new vehicles has created a whole new problem for the amateur (and other vehicular radio users). Perhaps the day is coming

when a purchaser will have to shell out a few extra thousand dollars for a vehicle immune from spurious emanating electromagnetic emissions. And likewise not be affected by RF energy from installed transmitters. In the meantime, buyer beware, take that hand-held with you when shopping for a new chariot!

Edited version from Mike and Key ARC and World Radio, October 1992.

AFTER SCHOOL CHILDREN

In this country, millions of children care for themselves after school while their parents work. All children should learn about fire safety but these children especially need to be taught how to protect themselves from fire.

Parents should discuss fire safety with the whole family and:

- have an escape plan
- speak to the children about the dangers of playing with matches and cigarette lighters
- if clothes catch on fire, STOP...DROP...and ROLL
- if a fire starts, leave the house IMMEDIATELY and call the Fire Department from a neighbour's house. DO NOT RETURN TO THE HOUSE FOR ANY REASON.

For more information on Fire Safety, contact the PREVENTION DIVISION of the Ottawa Fire Department at 564-1671.

Public Education - Prevention
Division
The Ottawa Fire Department

**NOVEMBER TALK - GLOBAL
POSITIONING SYSTEM (G.P.S.)
BY DAVE YUILLE**

G.P.S. was developed by the U.S. Department of Defence to simplify accurate navigation. It uses satellites and computers to compute a QTH consisting of latitude, longitude and altitude. The system works outdoors under all weather conditions.

There are currently 19 satellites in use for G.P.S. and this will be increased to 24 by mid-1993. The ground station must have a line of sight to three satellites to give latitude and longitude, and four satellites to compute altitude. The current 19 satellites give 24 hour coverage for latitude and longitude, and 19 hours/day coverage for altitude. The satellites are in an orbit at 20,000 km altitude.

Accuracy of position is 15m for the military, but this has been degraded to 30-100m for other users out of fear of hostile individuals. The 100 m is plenty good enough to find port in your yacht, but you may still run into some shoals near the harbour. The Geological Survey of Canada has used G.P.S. to measure the height of Mount Logan to within a few millimetres, using observations over several days.

A hand-held receiving unit may be purchased from \$1,200. (Mr. Yuille will be happy to help you here.)

MEMBERS - OARC

Please tell people who may not have renewed their membership that this may be the reason they are no longer receiving this fine publication.

ADVANCED AMATEUR COURSE

Subject to ratification by the membership, the OARC is sponsoring an Advanced Amateur Radio Course for hams who have had their Basic licence and want to upgrade, or for those who just want to brush up on the finer points. The course will start in January 1993.

To register, contact Richard Hagemeyer, VE3UNW, at 225-3275 or 225-3510. The fee is to be determined. Act now because spaces are limited.

BUDGET

If you are interested in how the Club spends its money, the Executive can show you a budget.

OARC FLEA MARKET

The 1992 OARC flea market is now history. It turned out to be a reasonably successful undertaking if dollar profit is a measure of success. Total revenue including paid admissions, sale of tables, refreshment sales and proceeds from donations to the Club was \$1,774. Expenses were \$432 yielding a net profit of \$1,432.

Prize winners were VE3PFH, Sean Bridge, VE3ZYZ, VE3BHW, VE3JDX and VE3FHU Les, who was winner of the main draw, a MFJ 1170B TNC. Prizes were donated by CARF, CIDX, CRRL and OARC. The main prize was donated in part by Harold MacFarlane Electronics and OARC.

Our attendance was somewhat in excess of 335 paid admissions. Visitors came from distant points like Montreal, Belleville, Kingston and Cobourg.

We had several special interest groups represented too, including Amateur TV Bill, VE3EKA, and Wayne, VE3CZO; Amsat Clare VE3NPC and Mike, VE3BUP; EMRG (RMOC) Joe, VE3CAT, and the Renfrew County Repeater linking group representing IPARN Ian, VE3SNX, and Jacques, VE3TSC, CARF and CRRL were also present.

The talk-in was capably handled by Ric, VE3MJV, and Marcel, VE3CPA, of the Cumberland Emergency Communications Group using repeater VE2CRA. Those men sure knew the townships of Cumberland and Rockland not to mention the metropolis of Orleans!

The Flea Market Committee and executive of OARC would like to say thanks to everyone who attended and supported this event. Without your presence we would not have realized as much revenue. This begs the question concerning the need to hold flea markets. Why? Well firstly, these events provide a source of funds to support your club activities and keep the cost of membership reasonable. Secondly, flea markets provide an opportunity to dispose of your unwanted items like cleaning out the shack, or disposing of the assets of deceased hams. Newly licensed hams, and others too, are on the lookout for goodies to enhance their hobby. Then we cannot overlook the opportunity to socialize with fellow amateurs. Everyone, newcomer and old-timer alike, enjoy a hands-on opportunity to twiddle the knobs of the latest rigs displayed by commercial vendors even though one's financial state discourages an immediate purchase.

Regretfully, Peter, VE3NPV, of Seaway Communications, discovered too late Saturday morning that the loaded vehicle had a transmission problem preventing his presence at the show. See you next time OM.

I personally would like to thank those who were part of the flea market committee, Paul VE3CEP, Dave VE3GAA, Samson VE3JSP, Marcus VE3MDL, Peter VE3PWJ and Richard VE3UNW and all others to help when help was needed. To Mike VE3PDE and Rod VE3BLB for assisting with the table setup and spelling off Marcus VE3MDL at the coffee shop, to Joe VE3CAT for helping with the cleanup and to all others who helped in some way like donations to the Club table. No who did I miss?

de Peter, VE3LBW

WANTED

Sensitive broadcast receiver:

- used-old technology or new but preferably solid state \$100-300 range
- AM/FM to 30 MHz (4 or more SW bands)
- receive only
- SSB optional
- BFO optional
- high sensitivity - fraction of microvolt/metre
- low audio distortion (less than 2 percent)
- large enough to store beside a bed possibly placing magazines on top

Call J. Shields - (613) 820-9524 (H) or 995-3094 (B).

IN CASE YOU MISSED IT

DEFENCE OF AMATEUR RADIO FUND TRUST - Some refunds have been issued in August. The balance of the funds will be kept in the Trust for future WARC's and it is anticipated that the new Radio Amateurs of Canada will administer the Fund in the future. (Item 2, CARF News Bulletin 13-92.)

MORSE CODE TEST FORMAT CHANGED IN UNITED KINGDOM - Britain's radio licensing authority, the Radiocommunications Agency, has announced changes to the format of the 12 wpm Amateur Morse test. It has been decided that 12 wpm test should also be in a QSO format. This is considered to be better at preparing candidates for the sort of operating conditions they can expect to encounter 'on-the-air'. (Their 5 wpm code test is already in a QSO format.) The Agency believes the existing English text and numerals code test falls far short of preparing anyone to actually understand a live message on the air. from W5YI report (Item 1, CARF News Bulletin 15-92.)

MEXICAN HAM MICROSAT TO BE LAUNCHED BY RUSSIA IN DECEMBER 1992 - A new Microsat-class OSCAR satellite is planned for launch before the end of 1992. UNAMSAT-1 the first Mexican Amateur satellite is being constructed at UNAM, the Autonomous University of Mexico. As with the earlier Microsats it will have five modules, each about 20 cm on a side. from W5YI report. (Item 2, CARF News Bulletin 15-92.)

NEW ISSUE COMMUNICATIONS CANADA RIC 24, Issue 5, September 1, 1992. Information on the amateur operator's certificate examination is now available free from any DOC office. (Item 7, CARF News Bulletin 15-92.)

HAM BAND CHAOS IN GERMANY? We understand that the Deutsche Bundespost (German telecommunications regulating body) has proposed new regulations for radio amateurs in Germany. The new regulations totally deregulate amateur radio.

The new proposed rules will apparently abolish all specific mode subbands and

licenses for special operations. The only guideline there appears to be, is that amateurs may not interfere with other services.

The DARC (German Amateur Radio Society member of IARU) is suggesting some amendments to the Bundespost in order to prevent what they believe could be complete chaos. If DARC fails, the new regulations go into effect on Jan. 1, 1993. from W5YI Report (Item 9, CARF News Bulletin 15-92.)

JOINT MERGER UP-DATE - Key Executive Members of the CRRL and CARF met in Cobourg, Ontario, on Saturday, October 3, 1992, as an ad hoc RAC planning group. One of the major issues discussed by this group was the status of the legal and accounting work that is being done in order to complete the merger process. Merging the operations of two non-profit corporations is a complex procedure.

These transactions require the approval of Revenue Canada. The RAC incorporation papers have been filed with the Federal Government in Ottawa.

The planning group did the following:

- affirmed maintaining the National Field Organization
- established a committee to study the National Capital Regional headquarters's office
- reviewed a proposed operational budget
- affirmed that all CARF and CRRL members will continue in RAC with all services intact

J. Farrell Hopwood, VE7RD, President CARF

Dana Shtun, VE3DSS, President CRRL
October 5, 1992

(CARF Special Bulletin 15-92)

CANADA SELECTED FOR 1995 IARU REGION 2 MEETING - An important item on the agenda at IARU Region 2 meetings is the selection of the site for the next meeting. There were three proposals submitted this year, one being Niagara Falls, Canada. The selection is made by popular vote of the delegates, and Canada won over Nicaragua and Cuba.

This will be the first time that Canada has hosted the General Assembly and we have plenty of time to do a good job. If all goes well, the responsibility for planning and implementation will fall to the Radio Amateurs of Canada (RAC). The Niagara Peninsula Amateur Radio Club is the nearest local club to the site and they have enthusiastically accepted the challenge to provide local help.

Region 2 has two official languages, English and Spanish. This year in Curacao 28 countries were represented, with only 9 being English speaking. Most countries of Region 2 are Spanish speaking with Portuguese from Brazil and Dutch from the Netherlands Antilles. (Item 1, CARF News Bulletin 16-92.)

VE7-USA REPEATER PROJECT - Amateur Radio Operators from WARA and the Clallum ARC are involved in the installation and operation of a new repeater to be used for Public Service Communications such as earthquake disasters, tidal waves and search and rescue. The repeater will be located at a fixed location called North Point, west of Port Angeles, Washington, U.S.A. and linked to VE7VIC in Victoria. The radio site is owned by Richmond 2-Way Radio but the equipment will be owned by WARA and has been donated by Daniels Electronics Ltd. of Victoria. The Federal Communications Commission will issue a licence to be held by a U.S. Amateur Radio Operator to cover

the Repeater Station. Radio coverage will be possible from Uclulet, to Victoria and up to Campbell River. The linking system will include areas such as Vancouver, Seattle, Tacoma as well as the Olympic Peninsula. Alan Muir VE7BEU Tech. Director WARA. (Item 2, CARF News Bulletin 16-92.)

NEW RADIO TECHNOLOGY - The JARL (Japan Amateur Radio League) reports that Tohoku Electric Power Corp. has developed new radio technology that permits single frequency, two-way simultaneous radio communications. The end result is telephone-like audio because BOTH SIDES OF A VOICE CONVERSATION CAN BE HEARD AT THE SAME TIME ON A SINGLE FREQUENCY.

Most business radio stations use only one frequency, therefore a dispatcher and the receiver cannot talk simultaneously. Each party must press the "push-to-talk" button whenever he or she wishes to speak and release the button to hear the other party.

The newly-developed radio system divides the operator's voice signals into 0.2-second sound segments and compresses them into half the time before transmission. The other half of the time is allocated to receiving similar messages from the other party. This allows both voices to be effectively transmitted at the same time on a single frequency. JARL says the new technology can be utilized in other radio services - including amateur radio. W5YI report (reprinted from TelePARK). (Item 6, CARF News Bulletin 16-92.)

* Merry Christmas *
* and *
* Happy New Year *
