

MAY 1993



**NEXT MEETING WILL BE HELD
WEDNESDAY, MAY 5, 1993**

GROUNDWAVE



Club Call VE3RC

Repeater VE2CRA

VE3LXM

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

President	Peter Jago, VE3PWJ	836-1013	
Vice-President	Paul Coverdale, VE3ICV	820-8643	763-4277
Secretary	Brian Summers, VE3JKZ	523-1535	738-6263
Treasurer	Mike Kelly, VE3FFK		788-2600
Past-President	Dave Goodwin, VE2ZP	684-1432	
Directors	Marcus Leach, VE3MDL	224-5303	723-6500
	Doug Yuill, VE3OCU	567-2262	788-2600
	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, VE3J8Q	836-5320	724-5464
EMI Committee Chairman	Ralph Cameron, VE3BBM	825-1634	225-2850
Membership Chairman	Barry Hall, VE3BXH	825-5171	
Nat. Cap. Award Manager	Brian Summers, VE3JKZ	523-1535	836-6860
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	Ted May, VE3ADZ	741-0882	790-3576

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 820-8643 (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 88B/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(ex)	Inter city links
VE3OCR	Packet	145.07(ex)	Local Area net for QSO and Packet 88S.
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 APRIL 7, 1993**

The meeting was opened by the President at 7:30 p.m.

The following visitor introduced himself - David, VE3TKP.

The President stated that he had received a letter from the President of the Canadian Police College ARC concerning repeater VE3MPC. The contents of the letter were discussed and a copy of the letter will be inserted in the next issue of the Groundwave.

Dave Parks, VE3AV (ex VE3GSA), announced that a nominating committee had been struck for next year's executive. Paul Coverdale, VE3ICV, was chairman; Mike Babineau and Dave were committee members.

Dave also stated that a course leading to the basic licence will commence May 4th. It was proposed, seconded, and approved, that the OARC will support the course.

There were no CARF or CRRL reports presented.

Eric Taada, VE3SGG, reported that 37 people had attended the last packet group meeting. He also stated that ITT Aerospace had placed an order for four of our cards. (And that a copy of the card was being offered by a group in Hamilton who had "lifted" our design.)

Paul Coverdale, VE3ICV, introduced Home Brew Nite.

- Mike VE3FFK showed his bicycle mobile rig with attachments
- Brian VE3JKZ showed his 20/40m CW Transceiver, plus a CMOS keyer

- Chris VE3CUZ showed his CW keyer built from a Ramsey kit, plus a home made paddle from a pocket knife blade (for cutting through the QRM?)
- Barry VE3BXH showed his keyer which he had designed using a CMOS microprocessor
- Claire VE3NPC showed his 2.4 GHz receiving dish antenna with GaAs FET pre-amp and helical element for Mode 'S' operation
- Doug VE3CDC demonstrated various items which he built, over the years as needs arose.
- Mike VE3BUP showed some of his bicycle mobile ideas
- Richard VE3UNW showed a keyer built from a 555 timer, LM386 plus various resistors and capacitors.

Following coffee break, the judges announced their decision:

1. Technical Achievement award and choice of prize to Barry VE3BXH for the hardware and software design that went into his keyer
2. Second prize jointly to Brian and Claire
3. Third prize to Doug

Note - prizes available for recipients choice consisted of a VOM, 1993 ARRL Handbook; a power bar and a 75W soldering iron.

The meeting closed at 9:35 p.m.

Brian Summers, VE3JKZ
Secretary

MAY MEETING SPEAKER - Curt Bowles, VE3ZN - Electronic Warfare

JUNE MEETING

- Elections - 1993/94 Executive
- Field Day demo and discussion

SILENT KEY - GEORGE CASKEY, VE3NJJ

We regret to announce the death of George Caskey, VE3NJJ. George was a member of the Ottawa Amateur Radio Club, the Ottawa Valley Mobile Radio Club and the Pioneer ARC.

He got his ticket in 1980, shortly before retiring from the Department of Justice in 1982. He was Treasurer of the OARC from 1986 to 1990.

George was born in 1917 and served in the 1st Division, Signal Corps in World War II. He was a member of the Governor-General's Curling Club. We offer condolences to his wife, Marian.

NOTICE TO VE2CRA USERS

This is to advise club members that the receiver voting circuit has been disabled on the 2m repeater. The on-line receiver will be located at Camp Fortune. Please note 20mw and a rubber duck out in your basement will no longer get into the receiver on the hill. This has been done in an effort to quantify the problems at the repeater site. If you have constructive comments, please call Harrie Jones, VE3HYS, at 739-9365.

**SIGNALLERS CLUB OF CANADA
AMATEUR RADIO CONTEST 93**

The Signallers Club of Canada (SCC) is made up primarily of former members of The Royal Canadian Corps of Signals (RCCS), but is open to all military communicators, serving and retired. The SCC has a membership of approximately 500 and continues to

grow. In 1993 RCCS celebrates its 90th Anniversary. The celebration will be held in conjunction with Reunion 93 being held at Canadian Forces Base Kingston, Kingston, Ontario 3-6 September. Reunion 93 will also mark the 60th Anniversary of the formation of the RCAF Telecommunications Branch and the 55th Anniversary of The Canadian Forces Supplementary Radio System. These three organizations were joined together at integration, in 1968, to form the Communications and Electronics Branch of The Canadian Forces - celebrating its 25th Anniversary.

THE AIM of this contest is to carry out two way amateur radio communications with not less than 90 members or ex-members of the Canadian Armed Forces. The contestants may use any band and any mode.

THE RULES of the contest are as follows:

- (A) Must be a member or ex-member of the Canadian Armed Forces.
- (B) Must be a licensed Amateur Radio Operator.
- (C) All contacts must be made in 1993.
- (D) Log for each of the contacts must show all the standard log information and service affiliation of the contact.
- (E) All logs or copies for this contest should be sent along with a fee of Two Dollars (\$2.00), No Cash, for certificate.

MAIL TO:

HAM CONTEST 93
c/o BILL COUSINS, VE3GPR
R.R. #1, KEMPTVILLE, ONT.
K0G 1J0

For more information on the Signallers Club of Canada, drop a line to:

The Signallers Club of Canada
P.O. Box 1983
Kingston, Ontario
K7L 5J8

Hope to meet you on the air and at the Reunion 93.

73 Bill VE3GPR

OARC 1993-94 EXECUTIVE NOMINATIONS

President	Paul Coverdale VE3ICV
Past President	Peter Jago VE3PWJ
Vice President	Roger Swickis VE3BZR
Secretary	Brian Summers VE3JKZ
Treasurer	George Roach VE3BNO
Directors	Ken Willing VE3CCV Doug Yuill VE3OCU Ian McEachern VE3PFH Richard Hagermeyer VE3UNW

Further nominations can be submitted until the official election at the June 1993 monthly meeting.

Respectfully submitted by the nomination committee:

Paul Coverdale VE3ICV
Dave Parks VE3GSA/VE3AV
Michael Babineau VE3WMB

13 April 1993

IN CASE YOU MISSED IT

FCC AND DOC TALK ABOUT 220-222 MHz IN CANADA Canadians do not need unwise and unnecessary "band takeovers" to add to our "Free Trade" problems! However, that could easily happen if DOC allows FCC to influence the reallocation of the 220-222 MHz band in Canada. CRRL and CARF want this crucial Amateur "exclusive" band protected for the use of our fast growing amateur population and for digital network linking. A powerful service industry lobby was behind this same band segment loss in the U.S. We encourage every Canadian Amateur to write the Minister of Communications demanding the Canadian "exclusive" amateur allocation of this band be maintained.

CARF and CRRL encourage amateurs from coast to coast to write to Perrin Beatty, Minister of Communications, asking for his assurance that Canada's valuable 220-222 MHz "Amateur Primary" band segment will not be allocated to commercial use under any circumstances. Send a copy to your MP and to CRRL/CARF. Remind the Minister that amateur radio bands are a "natural resource" which must be nurtured and protected for future generations of Canadians. (Item 1, CARF News Bulletin 06-93.)

CARF/CRRL TO MEET DOC DEPUTY MINISTER

- Key CRRL/CARF leaders will meet with Marc Rochon, Deputy Minister of Communications, on April 28, 1993, in Ottawa. The meeting is to review the serious issues confronting amateur radio operators as a result of current DOC policies. Antenna structures policy, lack of EMC standards and spectrum management enforcement problems, among other issues, will be discussed. The relationship with the newly formed Radio Amateurs of Canada will be touched upon. Regrettably, the

Honourable Perrin Beatty is unable to meet with the delegation. (Item 3, CARF News Bulletin 06-93.)

AMATEURS HONOURED BY THE HALL OF FAME

The Board of Trustees of the Canadian Amateur Radio Hall of Fame have announced honours for three well known amateurs. Noel Eaton, VE3CJ, has been elected as a MEMBER of the Hall. Ralph Cameron, VE3BBM, and Oscar Hierlichy, VO1DI, each receive the Hall's "AWARD OF HONOUR". (Item 4, CARF News Bulletin 06-03.)

GMORSE has been allocated to the Morse Enthusiasts Group Scotland (MEGS). The unusual call can often be found on 3530 kHz. de W5YI Report. (Item 5, CARF News Bulletin 06-03.)

WANTED - AMATEUR RDF INFORMATION -

Amateur Radio Direction Finding (ARDF) receives little press attention in Canada. This should be corrected! It's a useful fun-filled pastime which more Canadians would enjoy if they knew more about it.

ARDF skills are becoming more in demand as the nuisance and free-loader pastime types become more daring and disruptive on our bands. There must be organized Fox Hunt or Transmitter Hunt groups or clubs who would be willing to tell us what ARDF is all about in Canada and would be willing to help others get started.

The Canadian Amateur magazine would welcome club reports, interesting articles (with photos and graphics), operational activities, technical designs or whatever, to pass along to our readers.

So let's hear from Fox Hunt or T-Hunt enthusiasts!

Send your article or information to:

The Editor
The Canadian Amateur
P.O. Box 356
Kingston, ON K7L 4W2

(Item 12, CARF News Bulletin 06-93.)

C.N.I.B. AMATEUR RADIO PROGRAM "NIBs DAY" Wednesday, May 12, 1993. Frequencies: 14.150 MHz SSB 1000-1600 hours local time; 7.065 MHz SSB 1600-2200 hours local time. All amateurs, visually impaired and sighted, across Canada are invited to participate and contact the stations VE1NIB, VE2NIB, VE3NIB, VE5NIB, VE6NIB, and VE7NIB. Visually impaired and blind amateurs will be operating and contacting these stations and will be delighted to expand on their experiences to all amateurs.

Certificates will be awarded to any amateur exchanging signal reports with four "NIB" stations on submitting logs: Will Melhuish, VE3AOY, Manager CNIB Amateur Radio Program, 1929 Bayview Ave., TORONTO, ON, M4G 4C8. (Item 13, CARF News Bulletin 06-93.)

OTTAWA VALLEY MOBILE CLUB FLEA MARKET

Saturday, May 15, 1993, at Canadian Forces Reserve Barracks, Dow's Lake, Ottawa, Ontario. Free Admission. Vendors 8 a.m., Public 9 a.m. Tables: Commercial vendors \$20, \$10 for all others, tables can be reserved by contacting Ken Barry VE3KJB, 454 Wolffdale Cres., OTTAWA, Ont., K1K 1N4 (613) 746-4823. Wheelchair accessible. Refreshments. Talk-in on VE3TWO 147.300 MHz+. Be sure to visit the CARF table. (Item 21, CARF News Bulletin 06-93.)

MAY 1993

THE GROUNDWAVE

PAGE 1

LETTER FROM CANADIAN POLICE COLLEGE

To: President, Ottawa Amateur
Radio Club

Dated: 18 March 1993

Dear Sir:

I have recently been elected as president of the Canadian Police College Amateur Radio Club.

At our March 04, 1993, meeting a discussion was held regarding the use of repeater VE3MPC, 147.150 MHz. As a result of our discussion, I was directed, by a majority of the members present, to write to the presidents all of the amateur radio clubs in the National Capital Region whose members might use our repeater.

The purpose of this letter is twofold.

The first reason is to assure all repeater users that VE3MPC will remain an "open" repeater and that we do not want to discourage it's use by the general amateur community.

The second reason is to ask all clubs to encourage the use of better repeater procedures by their club members,

i.e. regular pauses between transmissions to allow other users easier access,

using direct frequencies whenever possible,

moving to unoccupied repeaters if possible,

remaining off the air if an emergency is in progress and you have not been asked to assist and

not monopolizing the frequency for long periods of time.

It also appears that the "linking" facilities presently on VE3MPC would be more useful and cause less congestion on another frequency. Attempts are now being made to have the "link" moved to another repeater.

I appreciate your cooperation in this matter.

Ric Guidone, VE3NJM
President - Canadian Police
College ARC

Apr 14/93

Spring is when you see someone on the sidewalk wearing a parka talking to someone else wearing shorts and a tee shirt, and neither finds anything unusual about that situation.

This year's homebrew night (see elsewhere in The Groundwave for details) was at least as good as any in recent years. I wouldn't be surprised to see ads for Barry's keyer showing up in the ham magazines soon. Seems there's lots to do while you are waiting for good weather. The delegated examiner thing seems to be rolling along, with three more Basics getting underway. That means the regular tutoring sessions are done, although the Advanced course is adding extra days to fill up my evenings.

As a result of spending a lot of time with new and soon to be amateurs, I find myself looking over the regulations more than most of the older hams do. Because of this, it was particularly interesting to get a copy of the new (MAR 1/93) version of RIC 25 and compare it with the old one. Most of it is unchanged, and

most of the changes just make the wording less obscure, but there are a few new twists. First, they define the Amateur service. The definition was always around, but it somehow got omitted from the portion of the regs that we all know as RIC 25. It now says:

"Amateur service" being a service in which radio stations are operated for the purposes of self-training, intercommunication or technical investigations by individuals who are interested in radio technique solely with a personal aim and without pecuniary interest".

They don't bother to define pecuniary, but my dictionary tells me it means "relating to or measured in money". There are some clarifications to the wording about Basic licence holders and repeaters. It used to say they could not "possess or install a station that is capable of receiving and automatically retransmitting radiotelephone communications."

Now it says they shall not "possess or install any radio apparatus manufactured specifically for use as an automatic repeater of radiotelephone communications within the same frequency band."

This takes care of the problem of the legality of all those nifty cross band repeating toys out there, and should be ok until somebody makes a radio that will do in band repeating without all the cavities and stuff that it takes now.

Regulations never stay ahead of technology in this game. They haven't changed the rules for Basic licence holders regarding a transmitter or radio frequency amplifier that is not commercially manufactured for use in the amateur service.

The final significant change to the wording comes is in the area of repeaters. It used to say:

"No operator of an amateur station shall automatically receive and retransmit the signals of another amateur station unless both the transmit and receive frequencies are in the frequency band from 29.50 to 29.70 MHz or in a frequency band above 30 MHz."

That was confusing enough. Now it says:

"No operator of an amateur station shall automatically retransmit radiotelephone signals in a frequency band below 29.50 MHz unless these radiotelephone signals are received from a station operated by a person qualified to transmit on frequencies below 29.50 MHz".

This opens up a can of worms, doesn't it? For starters, does this mean that a repeater can be set up with an input above 30 MHz and an output between 29.5 and 29.7 MHz? --I hope not-- Does this mean that someone who holds only a Basic licence can transmit up to a satellite that has an output on 10 metres? --I hope so-- Who is the operator of a repeater, the licence holder or the person transmitting on the input frequency?

Heard recently on 2M fm... "let's go up to 147.995 simplex.." It seems the fellow got his deviation and bandwidth mixed up. The bandwidth of an FM signal is usually considered to be $2(\text{dev}+\text{mod})$, so with 5 KHz of deviation and an upper audio frequency of 3 KHz, this guy would be spraying his signal 3 KHz over the top of the band. It's the same kind of "gotcha" that happens when somebody tries to squeeze their signal into the top of 20 metres by running at 14.349 USB. So if someone

says let's go 147.995 simplex, then say "let's not".

Enough regulations.. Summer is coming, and that means before you know it, it will be field day time (defined as the last rainy weekend in June). Wether you are planning to operate at VE3RC, or with another club, or you are considering a solo effort, the keyword is planning. Start thinking about what you will need now. Maybe even try operating out of your back yard some evening.

That will firm up your list of what you need to run your station. My list of stuff I've forgotten over the years would make a good starting point for your checklist, but I'm not going to embarrass myself by printing it here.

Remember the good old days when we had a day or two between complaining about the cold and complaining about the mosquitoes?

73 and cu on the air.. m.k. VE3FFK

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ITEMS FOR SALE

<u>Make/Model</u>	<u>Description</u>	<u>Retail</u>	<u>Asking</u>
Kenwood TS-950s	HF rig	\$5,000	\$3,500
Kenwood TR-7800	2 Meter		75
Kenwood PS-30	Power Supply		150
Kenwood SW-2100	HF SWR meter	200	130
Kenwood PC-1A	Phone Patch	150	100
Kenwood HC-10	World Clock		50
Kenwood SP-520	Speaker		incl.
Kenwood MC-60	Microphone		incl.
Heathkit HA-10	1 KW Linear		350
	Headphones/Mike		incl.
Vibroplex	Semi-Auto bug		75
Vibroplex	Paddle		75
AEC SWR-50	VHF SWR Meter		75
	Antenna tuner		75
	Mike stand		
Telereader CWR-695E	CW/Baudot/ASCII		125

If interested in any of the above items, please call Richard Hagermeyer, VE3UNW, at 225-3275 or 225-5310.

HOME BREW NIGHT

In keeping with our old tradition,

the April meeting was Home Brew Night. The most conspicuous contestants were two Mikes on bikes,

HOME BREW NIGHT

In keeping with our old tradition, the April meeting was Home Brew Night. The most conspicuous contestants were two Mikes on bikes, and Claire with a dish. The entries were judged by Paul Cooper, VE3JLP, and Paul Coverdale, VE3ICV.

The following contestants showed their building prowess:

Mike Kelly, VE3FFK - his bike is equipped with a 2 meter rig and an HF rig. The two meter rig is a modified hand-held with a remote antenna, handle-bar mounted push-to-talk switch, and a modified head set. He operates the HF rig on 40 meters, phone and CW. The HF antenna is offset well behind the bike to clear his foot as he mounts.

Mike Pilon, VE3BUP - Mike uses a two meter hand-held mounted in a metal box on the handle-bars. He has a handle-bar mounted push-to-talk button and draws power from a gel-cell on the back of the bike. Mike described some biking accessories useful for any bike-mounted ham.

Doug Burrill, VE3CDC, exhibited a grab-bag of clever gadgets - a foot switch; a mag mount for an antenna, made from a defunct speaker; a battery clip used as an antenna mount; two jigs for holding a hand-held on a desk using a C-clamp; a dummy antenna for a hand-held made from a #47 bulb on a bnc connector; and more.

Claire Fowler, VE3NPC, showed us his satellite dish. Claire works the satellite in "mode S" with a 7 cm uplink and 2.4 GHz downlink. His dish is four feet in diameter with a focal length to diameter ratio of .5. The frame is bent from aluminum bars with the curve gauged by a plywood

template; the reflector is 1/4" galvanized hardware cloth. The workmanship is outstanding. The antenna feed uses a three turn helix and a GaAs fet preamp. Claire showed us one of his counterweights, made from concrete poured in a plastic container.

Chris Wisner, VECUZ, demonstrated a keyer from a kit, and more important, a home-made set of paddles. But what will his wife say when she find she is missing the steak knife he used to make the paddles?

Richard Hagermeyer, VE3UNW, showed us a keyer made from a design he got us to reprint in the Groundwave a month or so ago.

Barry Hall, VE3BXH, demonstrated and described the keyer he designed around a Motorola microprocessor. All logic in the keyer is stored in the 500 byte on-board EPROM. This includes three outputs which are summed in an outboard D-A convertor to approximate a sine wave using eight levels. Barry is thinking about selling kits of this keyer.

The winner, for technical achievement, was Barry Hall. Runners up, for their designs and good workmanship, were Brian Summers and Claire Fowler. Honourable mention, for the spirit of ham radio went to Doug Burrill.

One advantage of travelling the straight and narrow path is that no one is trying to pass you.

de Peel Amateur Radio Club Inc.