

APRIL 1994

THE GROUNDWAVE



NEXT MEETING WILL BE HELD
WEDNESDAY, APRIL 6, 1994

Club Call VE3RC

Repeater VE2CRA



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

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	Barry Hall, VE3BXH		
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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
Membership Chairman	Richard Hagemeyer, VE3UNW	225-3275	953-0638
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	Mike Kelly, VE3FFK		788-2600

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 RMOG HQ complex on Lisgar St., Ottawa, at 1915 hours. Further details about each meeting is elsewhere in this publication.

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.

PACKET RADIO MEETINGS will be held at 7:30 p.m. on the last Thursday of every 2nd month, starting September 1993, at the Museum of Science and Technology. This is an OARC technical meeting open to all who have an interest in packet radio.

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 AND AN ENGRAVING PENCIL are available for loan to club members. 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 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	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;
	Packet	145.11(SX)

For further information, please contact repeater chairman.

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MINUTES OF OARC GENERAL MEETING
 HELD MARCH 2, 1994

The meeting was called to order by the club president, Paul Coverdale, VE3ICV, at 19:31.

Visitors

Paul asked any visitors to make themselves known. Two club members, Bill, VE3WCE, and Len, VE3AWT, introduced themselves. This was the first time either of them have attended a club meeting.

Announcements

It was noted by members that the former DoC will change it's name to the Department of Industry. This, of course, is pending legislation. We were also informed that station licence renewals would be mailed out next week (March 7 - 11)

Paul asked that any member interested in becoming a net controller for the Capital City FM Net held Mondays at 20:00 to contact Wayne, VE3JSQ. He also noted that Wayne had been our net manager for quite some time now and asked members to consider that position as well. Wayne's phone numbers are listed on the inside cover.

Richard, VE3UNW, reported that the advanced class is drawing to a close with final exams scheduled for March 15 at 19:00, Carleton University, MacKenzie Building, Room 2260. He expects everyone to pass. Others are invited on March 15 to try any of the amateur exams.

Richard also mentioned that he and Mike, VE3FFK, have been Delegated Examiners sponsored by the OARC for just over one year now. They have administered over 80 exams. A report on their activities can be found elsewhere in this Groundwave.

Rick, VE3IHI, reported on the Canadian Ski Marathon. Another success, with over 37 hams participating. Communications ran very smoothly despite some jamming by a teen (we think) and "interference" from a local ham who thought we should not be using "public" frequencies for "commercial" use. Rick also informed the club that Harrie, VE3HYS, and Dave, VE3AV, had jointly won the "volunteer of the year" award. 1750 skiers participated in this year's "backwards" ski with only a few going to hospital.

Paul, VE3ICV, reported that he did operate out of Geneva a while back. A Girl Guide station running as part of Guides on the Air (GOTA) was particularly memorable -- they were located in Signal Hill, NFLD!

Guest Speaker

Hugh Pett was our guest speaker for the evening. He spoke to us on Digital Signal Processing (DSP) and how this technology will shape the future of amateur radio.

DSP

- Useful as filters (mostly audio)
- Software based (often provided in specialized chips)
- Can be created on most PCs
- Important because it is flexible
- Fairly low cost

Packet Radio Networks

Moving messages simply and reliably
 Paths are becoming specialized, longer
 and more complex
 A different mode of communication (not
 direct)
 Varied links (satellite, ground, HF, VHF,
 UHF, Moon?)

Low Power EME (Earth-Moon-Earth)

Low power (100w)
 A single antenna
 Cheap (\$100) GaAsFET pre-amp
 DSP and computer control permits new
 modes
 Multiple slow data streams may be the way
 of the future (increased throughput)

Closing

Peter, VE3LBW, spoke about upcoming
 flea-markets.

Paul thanked Hugh for his talk and closed
 the meeting at approx. 20:45

UPCOMING MEETINGS

April: Home Brew Night
 May: TBA
 June: Annual General Meeting, Elections

CONGRATULATIONS

Congratulations to Harrie, VE3HYS, and
 Dave, VE3AV, who jointly won the
 Volunteer of the Year Award.

mk's WORDS

mar 9/94

It's a busy time around the ol' engineer
 factory these days, with the students
 making the heads down charge from the
 mid-terms to the finals. The second crop
 of advanced amateur radio students has
 less distance to go. They just finished
 their last class and are ready (we hope)
 for the big exam. The last part of the
 course is on test equipment, where there
 is a practical aspect to the work. They
 seemed to enjoy building meters and
 oscillators, and then using the test
 equipment to analyze and characterise
 their creations. The circuits were all
 beadboarded and dismantled at the end of
 the night, so you won't be seeing any of
 them at homebrew night... but wait 'till
 next year.

In case any of you were wondering, we
 didn't "win" the bunny hunt I mentioned
 last month, but did come in fourth. Much
 laughter occurred at the end of the hunt
 when one amateur (who shall remain
 unnamed) was heard to key up with a
 barely readable signal and say he thought
 he was getting pretty close to the
 wabbit. Unfortunately, he was still on
 the wrong side of town. I've had hunts
 like that too often myself.

More updates to old news... I got my Ten
 Tec modules and am having a blast with my
 new Scout. Once I was sure it worked, I
 got in there and started modifying it to
 suit me. The receive current drain is
 now down below 350 mA, so I can listen
 about 25% longer on any given battery
 than I could before. I'll bring it in to
 the meeting for you to have a look at.

Just in case it doesn't get mentioned
 elsewhere in this Groundwave, there will
 be another Basic class held this
 spring/summer. I now have a voicemail
 box at work, so if you know anyone who
 wants more info, give 'em my number..(613
 788 2600 ext 5782). The start date will

be Tuesday, May 3. Time and place to be determined, but it looks like 7-9 pm and RM 2260, Mackenzie Bldg., at Carleton U., unless something better comes along. We are shooting for an exam date of Aug 30. The cost will be \$0.00.

Speaking of free, just in case there was going to be a bit of free time in my spring, the EMRG has announced an exercise this weekend. I guess it's time to see if any of the training they have been busy at has sunk in. Next month, I suppose I will have to tell you what it's all about. Right now, it's all very mysterious, with sealed orders being expected in the mail any day now. By the way, congrats to them for getting VA3EMU repeater up and running on 146.880-. They invite everyone to use it, but to not use it for long conversations. It should make a good calling frequency if people "call and QSY".

That's it for now, get your mosquito repelling sun block ready, winter is nearly over. Always remember: moderation is ok, as long as you don't overdo it.

73.. mk VE3 FFK

HOME BREW NIGHT

Remember! Home Brew night is coming in April. You'd better finish up that project!

Three prizes will be awarded based on technical achievement and ingenuity.

FIELD DAY

Remember Field Day in June - details will follow in an upcoming issue of the Groundwave.

OARC MEMBERSHIP REPORT

Membership currently stands at 181 members. If you know someone who hasn't yet joined, why not let them know it's only \$10 for the rest of the year.

Mail memberships to: OARC Membership
Suite 334
1568 Merivale Road
Nepean, ON
K2P 5Y7

Be sure to have them include their name, address, callsign and phone number at work and home. If they have an internet address, include it as well.

OVMRC FLEA MARKET

The Ottawa Valley Mobile Radio Club is holding its Flea Market on May 14, 1994, at the St. Laurent Arena, 716 Morin Avenue, Ottawa, Ontario.

Admission: Free
Tables: \$20.00 - Commercial
\$10.00 - Non-Commercial
Talk-in on: 147.300 MHz
Talk-in by: Lorraine, VE3VAT

Doors open at 9 am for the public, 8 am for the vendors.

For table reservation or further information, please call Ken Barry (613) 746-4823.

FOR SALE

TS-950s with digital option installed, a MC-60 desk mike and a headset/boom mike for \$2,800. Also available is a Kenwood PC-1A phone patch controller for \$75. Interested? Call Richard, VE3UNW, at 225-3275.

**RADIO AMATEURS OF CANADA
NEWS SERVICE**

VHF, UHF MICROWAVE BANDPLANNING - The RAC VHF, UHF Advisory Committee is forming a cross-Canada ad hoc committee to review and update the interim RAC bandplans for 50 through 2400 MHz.

RAC's VUAC Chairman Dana Shtun VE3DSS, is looking for volunteers from each RAC section to participate in discussion and formulation of a new national bandplan.

The committee would like input from all users including SSB, moonbounce, CW, packet, FM repeater, FM simplex, ATV (repeater and simplex), and those experimenting with or planning systems using new technologies (digital modes, ACSSB, etc.)

The committee asks that you send your name, callsign, address and phone number to: Dana Shtun VE3DSS, Chairman RAC VUAC, 500 Willard Avenue, Toronto, Ontario, M6S 3R6. (Item 4, RAC Bulletin No. 02-94.)

RADIO AUTHORIZATION REVOKED - Vancouver, January 18, 1994. Press release from Industry Canada.

The amateur radio station licence and amateur radio operator certificate of Pierre Joseph Souaillard were revoked by Industry Canada after an investigation by department radio inspectors revealed another person had written the qualifying operator's exam on Mr. Souaillard's behalf.

Charges under the Radiocommunication Act have been laid against Mr. Souaillard.

Mr. Souaillard had interfered with amateur radiocommunications, modified his amateur radio equipment to enable it to transmit on police frequencies, and interfered with police radiocommunications.

The fact that Mr. Souaillard broke so many of the regulations is considered to be cause for full revocation.

The person who is alleged to have written the exam on behalf of Mr. Souaillard is also under investigation for alleged offences under the Radiocommunications Act. (Item 5, RAC Bulletin No. 02-94.)

INTERNET PASSWORD COMPROMISE - Internet, the global computer network which services more than 10 million people worldwide, announced recently that the security system had been compromised. The network was forced to advise its users to change their passwords. According to a UPI news item, "hackers" are suspected of having developed software that could copy down the password of users as they log on. (Item 9, RAC News Bulletin 02-94.)

TOP SECRET DEVICE SOLD AT SALVAGE AUCTION - This item was reported by Associated Press and appeared in the London Ontario Amateur Radio Club newsletter.

Cooleemee, N.C. - Roger Spillman paid \$75 for what he thought was a radio amplifier at a salvage auction. The pale green amplifier which he never got to work turned out to be a \$363,735 piece of military hardware. It is part of a \$32 billion Milstar system to be used in missile silos, nuclear submarines and bombers.

The amplifier had gone astray during shipping. When Spillman turned to a local ham friend for help, the manufacturer was contacted for an instruction manual. This led to a visit by the U.S. Air Force with a court order to reclaim the device. (Item 10, RAC News Bulletin 02-94.)

U.S. NO BUSINESS RULE CHANGED - The rule that banned all commercial radio transmissions on amateur radio frequencies in the United States has been changed as of September, 1993.

Historically, amateurs have been restricted to emergency, technical and non-business communications. Acting at the request of the amateur community, the FCC agreed to relax the permissible communications content rule. (Item 13, RAC News Bulletin 02-94.)

BRITISH SCANNERS BUSTED - It is not illegal to listen to police radio transmissions in Great Britain, however, it is illegal to act on any information heard when monitoring police frequencies. In England, scanner operators are considered amateur radio operators.

A recent sting operation which resulted in several people being charged involved phoney broadcasts made by the police. In one broadcast aliens were said to be landing nearby. In another broadcast, money was said to have been discovered in the woods and large sums were blowing around. When eavesdroppers arrived at the sites, they were charged.

South Yorkshire police ordered "Operation Marconi" when they suspected that criminals were benefiting from information gleaned from the airwaves.

This story originated over the Reuters newswire and was reported in W5YI. (Item 15, RAC News Bulletin 02-94.)

AMATEUR RADIO NOW PERMITTED IN CHINA - Individual amateur radio stations are now permitted in China with prefixed BA, BD and BG. They will be controlled by CRSA, the Chinese Radio Sports Association, with guidance from the National Radio Control Committee and the Amateur Physical Training Committee. From Break-In, Official Journal of the New Zealand Assoc. of Radio Transmitters. (Item 17, RAC News Bulletin 02-94.)

RFI AND YOUR CAR POTENTIALLY FATAL - Almost all modern motor vehicles now contain high use of electronic components, even basic models.

Mitsubishi advises that for an output of up to 10 W the following special installation requirements are necessary as a minimum:

Never run the antenna lead parallel to any of the vehicle's wiring harnesses; leads should cross at 90 degrees.

Antenna lead must have good quality shielded cable and be properly grounded.

The radio installation should be stand-alone with its own harness. Do not integrate radio wiring with vehicle wiring.

Install radio unit as far away from electronic control units as possible.

The antenna, radio itself and cable should be firmly grounded to the vehicle body.

Mitsubishi does not recommend that a radio with a higher output than 10 W be fitted to Mitsubishi vehicles. If they are, then the radio and cable should be firmly grounded to the vehicle body.

This advice followed a fatal RFI problem with a 1992 Toyota Camry and was contained in a report in the New Zealand Association of Radio Transmitters bulletin. (Item 19, RAC News Bulletin 02-94.)

HAM RADIO WAVES HAUNT NEIGHBOURS - According to an item carried in a recent issue of the Atlantic City Press as reported in W5YI, a New Jersey ham is facing court charges of trespass, inflicting severe emotional distress, causing a continuing nuisance, invasion of privacy and breaking zoning laws.

According to his neighbours the ham's 800 watt signal comes through their electronic equipment, even their telephone and door chimes on a daily basis. The neighbours say the ham has no

license to come into their home electronically or physically and are seeking \$100,000 in damages.

This case, according to reports, could set a precedent. It will probably be the first electronic interference case that goes to trial based on the concept of electronic trespass and invasion of privacy.

The FCC inspected the offending station in 1990 and determined that the station is in full compliance with the rules. The FCC contends that the problem is with the neighbour's equipment. They say it wasn't properly shielded when it was manufactured.

The neighbours see it differently and would like to see a law passed that puts responsibility where they believe it belongs - on the ham radio operator not to trespass on or to interfere with the lives of neighbours. (Item 20, RAC News Bulletin 02-92.)

had a lot of fun and feel we have contributed positively to the amateur radio hobby. Our initial need was to facilitate giving exams to the advanced class, but the scope quickly enlarged to encompass the basic course. A major reason for our success is the accessibility and availability of examination sessions. We also try to review the test results with each candidate in order to point out strengths and areas for improvement. To date 86 exams have been given to 59 candidates. This includes 39 newcomers to our hobby.

Most of the tests we give are for the Basic or Advanced qualification. We hope this is due to our club's involvement in teaching theory classes and not an indication of the decline of Morse code.

We hope to continue what we believe is an invaluable service to the amateur community in the coming year.

We wish to thank the Ottawa Amateur Radio Club and the Eastern Ontario District Office of the Department of Industry for their support and encouragement.

Congratulations to all those hams who passed.

by Mike Kelly, VE3FFK & Richard Hagemeyer, VE3UNW

DELEGATED EXAMINERS REPORT
MARCH 9, 1994

Well, a little over a year has passed since the club sponsored our application to become delegated examiners. We have

A BREAKDOWN OF THE EXAMS GIVEN FOLLOWS:

	<u>% of total exams given</u>	<u>Given</u>	<u>Passed</u>	<u>Pass rate</u>
5 Wpm Morse	9.3%	8	6	75.0%
12 Wpm Morse	4.7%	4	3	75.0%
Basic Theory	51.2%	44	40	90.9%
Advanced Theory	34.9%	30	20	66.7%
Total Exams		86	69	80.2%