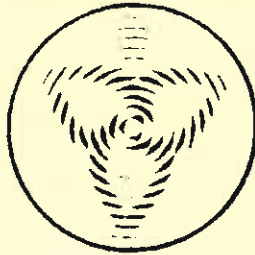
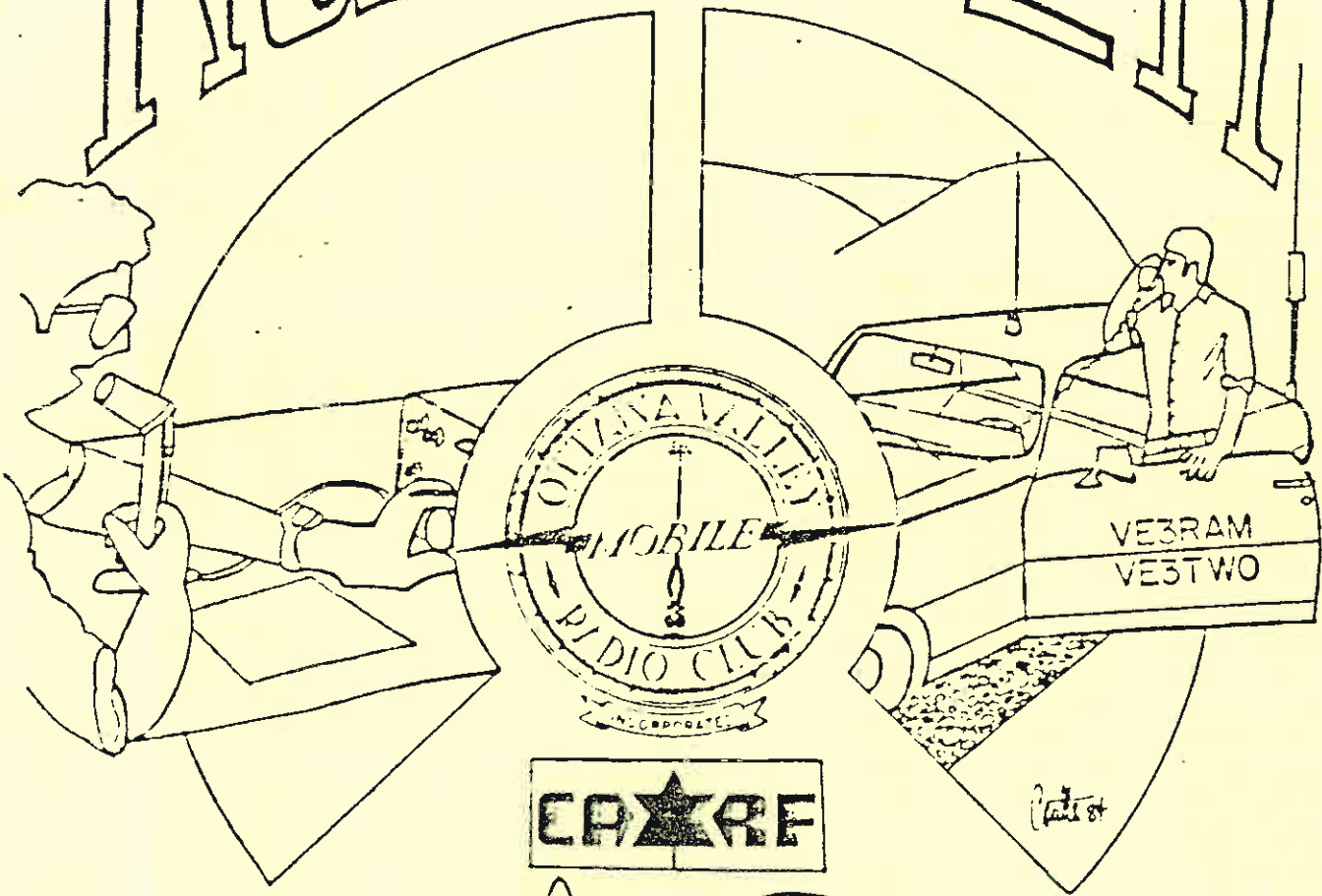


VOLUME 31 NO.1

RÄMBLÄR



NEXT MEETING

FEB 18

1988

THE OTTAWA VALLEY MOBILE RADIO CLUB INCORPORATED
1987 - 1988 EXECUTIVE

PRESIDENT	BILL SEYLER	VE3OAI	836-5818
VICE-PRES	IAN MCINTYRE	VE3CZ	731-7617
SECRETARY	KRIS ANDERSON	VE3OWE	225-4152
TECH ADVISOR	ALAN BOYCE	VE3LNH	737-4937
PUBLIC REL	LEO DESJARDINS	VE3NVL	225-0902
TREASURER	HENRY GREENWAY	VE3OMU	729-3804
PAST PRES.	VANCE JOHNSON	VE3OAO	824-9555
EDITOR	JERRY WELLS	VE3CDS	225-7374
MEMBERSHIP	PAT BREWER	VE3KJQ	820-9309

CLUB SPONSORED ACTIVITIES

POT HOLE NET - OVMRC Net - Every Sunday, 1000 local time on 3760 kHz. SSB. All radio amateurs are welcome to participate.

THE WISE OWL NET - OVMRC Net - Ragchew net every Friday evening at 2000 local time on the club repeater VE3TWO - 147.30/90 MHz.

VE3JW - Amateur radio station of the National Museum of Science and Technology. The OVMRC helps maintain the station and schedules operators for the station as part of an Amateur Radio public relations display. VE3JW operates on all HF Bands, both CW and phone. Slow scan TV is also demonstrated. For information or if you wish to operate the station, contact the Public Relations Coordinator.

LOCAL AMATEUR RADIO ACTIVITIES

POT LID NET - Sponsored by Ed VE3GX. An informal slow speed CW net meeting each Sunday (except July and August) at 1100 hrs on 3620 kHz, to provide and stimulate interest and proficiency in CW procedures.

CAPITOL CITY FM NET - Sponsored by the Ottawa Amateur Radio Club Inc. every Monday evening at 2000 hrs local time. Conducted on VE3CRA repeater 146.94/146.34.

SWAP NET - Sponsored and conducted by Ed, VE3GX, each Sunday as part of the Pot Hole Net and each Monday as part of the Capitol City FM Net (except July and August). Ed may be reached at 723-1721 for listings and queries.

THE MILITARY NET - Sponsored and conducted by Frank, VE3MSC, Tuesday at 2000 hrs on VE3TWO 147.30/147.90 MHz.

Membership in the OVMRC is open to all those interested in Amateur Radio. Regular meetings are held on the third Thursday of each month (except July and August) at 2000 hrs unless otherwise posted. Meetings normally take place in the auditorium of the Museum of Technology on St. Laurent Blvd (south of the Queensway)

The OVMRC provides code practice 24 hours a day. Dial 825-0786.

MINUTES OF JANUARY MEETING

The meeting was opened at 20;03 by vice-pres Ian VE3CZ who announced that Pres Bill, VE3OAI was unable to attend as he is ill. We all wish you a speedy recovery Bill. There were about 35 people in attendance. It was noted that a number of members had not received their Ramblers as yet.

EXECUTIVE REPORTS

Treasurer Henry VE3OMU noted that the Nashua maintenance contract for the club printer is under discussion and a final financial balance cannot be given until this is settled.

Public Relations Coordinator, Leo, VE3NVL commented that VE3JW is open for operators in addition to the regular scheduled weekend operators. The schedule is posted at VE3JW.

The first qualifying net for the Wise Owl Certificate starts Jan 22 on VE3TWO. This year there will be a total of 11 nets. A class A certificate requires participation in 10 nets or more and a class B certificate requires 7 or more. The extra net is added to accomodate those who for various reasons may have to miss one. The last one will be on April 1.

Secretary Kris VE3OWE had been asked by CRRL director Ray VE3FN to announce that the Canadian Amateur Directory project requires full participation if it is to be viable. CRRL obtained the mailing list from a commercial U.S. call book organization on the understanding that they would not make a copy of it. Therefore, the only source of member information for the new directory is that provided by individual amateurs. Extra copies of the directory request for information were made available at the meeting. Anyone requiring more information were asked to contact Ray.

CRRL also indicated that the split from ARRL was now complete. There is no mention of CRRL in QST as of January 1988. A question was asked about members subscriptions to QST via CRRL. CRRL purchase QST as a customer of ARRL and will continue to do so.

Dan VE3EBI reported on behalf of CARF that the Soviet-Canada Transpolar Ski expedition will be supported by two special amateur stations; one in the USSR and one in Canada.

It is rumored that DOC is considering restructuring the Radio Amateur Service as follows:

DOC proposal	CARF/CRRL recommendations
Level 1	
No code	No code
Commercial gear only	commercial or homebrew
All modes above 30 MHz	All modes above 30 MHz
200 watts max.	100 watts max.
very easy technical exam	exam based on 40 hour course



Level 2
5 wpm code
commercial gear only
all modes on all bands

200 watts max.
no technical exam

7 wpm
commercial or homebrew
all modes above 28 MHz
cw only below 28 MHz
100 watts max.
endorsement after code test

Level 3
12 wpm code
commercial gear only
all modes on all bands
1 Kw max.
easy technical exam

no equivalent proposal

Level 4
Present advanced amateur
15 wpm code
commercial or homebrew gear
all modes on all bands
technical exam

same

The Ravenscroft VE3SR Appeal will be heard on January 28th.

The DOC pilot project on examinations conducted by Advanced amateurs has resulted in favorable comments by DOC. The plan is to let Radio Amateurs conduct the examinations on behalf of DOC for the various classes of license. The Amateurs have indicated that much more work remains to be done before they can take on the full job of conducting the examinations.

Merv VE3CV made a request for net controllers for the OVMRC Pot Hole Net on 3760 KC Sunday mornings at 10:00. This net has operated for nearly 30 years and originally served a number of mobile check-ins. Norm VE3JDJ at Otty Lake has done yeoman service as net controller but he cannot carry the load alone. Merv asked for volunteers for the same Sunday each month and to arrange for a replacement when they cannot make it.

The next executive meeting will be at Pres Bill's VE3OAI on Thursday Jan. 28th at 19:30. The next OVMRC meeting will be on Feb 18th at 20:00. The speaker will be John Newell of Ontario Hydro who will speak on trouble shooting electrical interference.

Former Treasurer Bob Hicks VE3OSN would like to contact members on the Trans Canada Net 14.140 at 13:00 on Sundays. Bob is stationed in Bermuda and uses the call VE3OSN/VP9.

Ian VE3C2 reported on a Tuesday visit with Art VE3ZS to the Arnprior civil defense centre where training is given via simulated emergencies. His impressions were that the simulations were very realistic and that the learning experience was very worthwhile.



President Ian VE3CZ introduced the guest speaker Hugh Clark VE3WM who is a Standards Officer with DOC H.Q. who spoke on conflicts and agreements in communications with emphasis on Amateur Radio. His talk was most informative and was well received with a stimulating question and answer session at the end. The topics covered included the ITU list of banned countries, 3rd party traffic agreements etc. Ian VE3CZ thanked the speaker for an excellent presentation and the members responded with a round of applause.

The meeting was adjourned at 21:15.

Kris Anderson VE3OWE
Secretary

HAMMING WITH HENRY

I am always interested in the equipment used and how it is operated by fellow hams, and any opinions that they have about their equipment. If you would like to describe your station to readers of the Rambler, please give the details to myself or to VE3CDS Jerry (Editor) and they can then be included in future Rambler issues.

My own HF station originally consisted of a Hammerlund HQ129X receiver, bought in 1959 to listen to short wave stations AM and CW. Just before I retired I built a transmitter from a DX20 kit. I got a station license in April 1984 and went on the air. My first contact was with KA0GZS in Mo., and the second was K4OX in Miami Fla. For a VY FB 35 minute QSO. After wrestling with this setup for a couple of weeks I went for more power and bought an ICOM 751 with a tuner and a power supply. The antenna was a 14AVQ vertical-ground mounted out in the back yard, with 36 radials, spaced every 10 degrees, buried about 3-8 inches deep and grounded at the ends. Wherever possible I tied the ends to water pipes, iron fence posts, etc. With this station I made a first contact with EA5AU in Valencia Spain - He was using 5 watts and had a 57 signal on 21 MHz.

To exercise my voice, I purchased a TR2500, 2 meter hand held, and found out about nets, repeaters and rag chews! The handheld I use in the car with a supply/charger mounting which plugs into the cigar lighter. Lately I added a 5/8's MAG mount and an 80 watt amplifier. I got tired of charging batteries and running out of power in the middle of a QSO, so the last purchase was a base mount and a 5/8 wave extendable antenna. I should have bought a mobile set which has a more sensitive receiver, for use in the car. I still need a good outdoor 2 meter antenna and possibly a multimode dual frequency VHF/UHF base station!



The latest addition has been a 40/80 meter trap dipole, which I put together using hard drawn #14 copper wire and a 1/1 Balun and a pair of 80 meter traps. It is tied to the chimney at a height of about 19 feet, with the two legs at an angle of about 90 degrees in the horizontal plane. It allows me to reach Toronto on the Ontario Hydro Net on 3737 KHZ, and to operate some DX when conditions are right. To get onto 160 meters for a sched with friends in Prescott and Morrisburg I can operate this trap dipole as a Marconi antenna against ground. The IC-751 is a digital machine and is very easy to operate once you find out what all the knobs and switches are used for. It reduces power automatically if you try to operate into antennas that do not present a 50 OHM load - usually less than an indicated SWR of about 2.5:1. The tuner compensates for a lot of variation in antenna impedance, and also operates as a harmonic filter.

At present my station is in the basement and it is cool down there. The next move will be upstairs where I can assemble the HF and VHF radio equipment and introduce it to my C64 computer. Then I will be in position to try AMTOR, Packet or Satellite work, or to use the C64 for logging in contests, for QSO details, or for nets. There are still lots of possibilities to explore in the future.

73 CU. VE3OMU Henry

THE POT HOLE NET- by Norm VE3JDS

Several years ago I offered to assist the OVMRC POT HOLE Net Manager by acting as Net Controller every third Sunday.

My log indicates that over the past 260 Sundays I have dedicated an average of 25 minutes acting as the POTHOLE NET control station for 230 of them. During that interval the Net Manager, Merve VE3CV and myself have appealed for additional Net Controllers with minimal response as indicated by the above statistics.

In consultation with with the Net Manager it was decided to simplify and publish the net controller's procedures to encourage operators to "give it a try". Heck, they might even find it's fun. The results are published below. Why not cut it out and post near that rig of yours?

For those of you familiar with the former procedure you will note that discrimination of stations by geographic location is gone. At times that was somewhat of a Controller's nightmare during rapidfire check-ins.

Here is your operating guide. Just fill in the blanks and read the CAPITALIZED text. Good luck and thanks for volunteering!

See next page for the operating procedure for the net controller



NET CONTROL OPERATING PROCEDURE

"GOOD MORNING, THIS IS VE-_____ NET CONTROL STATION FOR THE OTTAWA VALLEY MOBILE RADIO CLUB "POT HOLE NET". THIS NET WAS ESTABLISHED IN MAY OF 1959 AND SINCE THEN HAS MET EACH SUNDAY AT 10 AM, LOCAL TIME, ON 3760 KHZ. ALL STATIONS ARE WELCOME TO CALL INTO THE NET; MEMBERSHIP IN THE CLUB IS NOT A REQUIREMENT.

THE PURPOSE OF THE NET IS TO ANNOUNCE FORTHCOMING AMATEUR ACTIVITIES, PERTINENT BULLETINS, AND TO PROVIDE AN OPPORTUNITY FOR PARTICIPANTS TO ARRANGE TECHNICAL OR OTHER AMATEUR RELATED ACTIVITIES."

"THE NET PROCEDURES ARE AS FOLLOWS:

FIRST THERE WILL BE AN OPPORTUNITY FOR STATIONS TO CHECK-IN, WITH PRIORITY GRANTED TO MOBILE STATIONS.

THIS WILL BE FOLLOWED BY THE ANNOUNCEMENTS. STATIONS WITH ANNOUNCEMENTS ARE ENCOURAGED TO PARTICIPATE. THE ANNOUNCEMENTS WILL BE FOLLOWED BY THE "SWAP NET". A BRIEF INFORMAL RAGCHEW WILL FOLLOW FOR THOSE STATIONS WISHING TO PARTICIPATE."

"YOUR NET CONTROL STATION THIS MORNING IS VE_____, THE HANDLE IS _____ AND THE QTH IS_____. BEFORE WE CARRY ON DO WE HAVE ANY URGENT OR PRIORITY TRAFFIC?"

1. Call for mobile check-ins; 2. Fixed station check ins.
3. About 1005 hrs, call VE3CV, Merv, for announcements, when Merv is finished enquire if there queries or additional announcements.
4. At about 1010 hrs, call Ed, VE3GX, to conduct the swap net.
5. Following the swap net, call for "ADDITIONAL CHECK-INS BEFORE WE GET TO THE RAGCHEW PORTION OF THE POT HOLE NET;" This alerts participants and picks up stragglers.
6. Call stations in for the ragchew in order of check-in.
7. When the list is complete: "THAT IS MY LIST AS I HAVE IT, DO I HAVE ANY FURTHER CHECK-INS OR RE-CHECKS BEFORE I CLOSE?" If none:

"THIS IS VE_____ NET CONTROL STATION FOR THE OTTAWA VALLEY MOBILE RADIO CLUB "POT HOLE NET SIGNING THE NET AT _____ HOURS. GOOD MORNING."

Norm, VE3DDA
1 February 88



SCHEDULE FOR VE3JW

Schedule for february 20 to march 13, 1988.

		<u>Morning 9 AM - 1 PM</u>		<u>Afternoon 1 PM - 5 PM</u>	
Feb 20	Sat	Chris Otto	VE3PAE VE3HCD	OPEN	
Feb 21	Sun	George Dan	VE20WW VE3EBI	Don Chuck	VE3ATJ VE3PDK
Feb 27	Sat	George Vance	VE3BND VE3OAO	Ed Leo	VE1EJ VE3NVL
Feb 28	Sun	Kris	VE3OWE	Bob Earl	VE3JDB VE3YOU
Mar 5	Sat	Rick	VE3NJM	OPEN	
Mar 6	Sun	Doug Pat	VE3ATY VE3KJQ	Joan Susan	VE3OSE VE3OSP
Mar 12	Sat	Otto	VE3HCD	Paul Leo	VE3NPD VE3NVL
Mar 13	Sun	Doug Paul	VE3DMZ VE3CEP	Fred Jim	VE3BAJ VE3GJY

This is a list of operators who have express a desire to operate VE3JW, the amateur radio station at the Museum of Science and Technology. Anyone else interested to operate the station is welcome to call Leo, VE3NVL at 225-0902.



COULD YOU PASS?

It's exam time again. Here are some more exam questions for you to try. These are from the Amateur, Advanced and Regulations question banks. If you want your own copy of the question banks contact either CRRL or CARF.

1.91 Parallel tuned circuits offer:-

1. very high impedance at resonance.
2. low impedance at resonance.
3. zero impedance at resonance.
4. an impedance equal to resistance of the circuit.

3.46 The number of cycles of deviation from the centre frequency is determined solely by the ? in a FM system:-

1. amplitude of the modulating frequency.
2. frequency of the modulating frequency.
3. amplitude and the frequency of the modulating frequency.
4. modulating frequency and the amplitude of the centre frequency.

66. The licensee of an Amateur station may permit anyone to take part in a telephony transmission only when:-

1. the emission A3 is used.
2. the licensee is present and retains control of the station.
3. the licensee transmits the call signs.
4. the d.c. power input to the final rf stage anode circuit does not exceed 750 watts.

Pat Brewer
VE3KJG

1. The following countries have notified the International Telecommunication Union that they forbid radiocommunications with amateur stations under their jurisdiction:

Angola (People's Republic of)
Burma (Socialist Republic of the Union of)
Ethiopia
Ghana
Iraq (Republic of)
Saudi Arabia (Kingdom of)
Suriname (Republic of)
Thailand*
Zaire (Republic of)

* Permitted on special request.

7-22-11-11-11

ANTENNA TOPICS

It's been said that the best thing next to an antenna system is a transmatch or antenna tuner. The Radio Amateurs Handbook describes several including the SPC Transmatch. As is stated there, most transceivers are designed to operate into a 50 ohm load. The impedance presented by an antenna and feedline will generally vary from 50 ohms as frequency of operation changes. The result is an impedance mismatch that can result in high values of VSWR and therefore high values of reflected power at the transceiver. The transmatch as the name implies, corrects the impedance mismatch between the transceiver and the antenna system so that the transceiver "sees" a 50 ohm resistive load (or something close to it). The transmatch achieves this by inserting the required amounts of capacitive and inductive reactance to cancel out the reactances presented by the antenna and feedline at the frequency of operation. Another useful function of the transmatch is harmonic suppression. This is achieved in the SPC transmatch over a range of antenna system impedances from less than 25 ohms to over 1000 ohms when connected to a 50 ohm transceiver. The SPC is designed such that a substantial amount of capacitance is always in parallel with the variable inductor and covers a frequency range from 1.8 MHz (160 metres) to 30 MHz (10 metres).

According to the Handbook, other transmatches such as the ultimate transmatch may exhibit high pass filter characteristics which is undesirable in terms of harmonic suppression. The SPC design provides a higher Q, resulting in excellent harmonic suppression and also somewhat sharper tuning on the lower frequencies. The SPC is operated by adjusting the variable inductor for minimum reflected power and then alternately adjusting the series and shunt variable capacitors for lowest VSWR. If desired, a balun can be used to provide connection to a balanced feedline.

I built an SPC transmatch a couple of years ago and have been very pleased with the performance obtained. Parts were obtained at flea markets. Large wide-spaced transmitter variable capacitors are used along with a roller inductor. To minimize stray inductance all connections are made with strips of flashing copper (obtained from a roofing contractor). Direct reading dials were used on the capacitors and a turns counting dial is used on the inductor. The settings for each band are recorded so that band changing can be readily done. The assembly is mounted in a metal cabinet to provide rf shielding and the cabinet is grounded. Typical VSWR values of 1.2 to 1.4 have been obtained on all bands. Tuning is sharper on the lower bands as the Handbook says. I can recommend the SPC Transmatch from personal experience. It would be interesting to hear from others on the transmatches they use and how they operate.

Any contributions on antenna topics are welcome and may be forwarded to the Editor Jerry VE3CDS or to the undersigned. Please share your experience for the benefit of all.

Kris Anderson VE3OWE



CQ CQ CQ....

We amateur radio operators have unique ways to communicate with each other. The use of Q-signals and other coded signals makes it very easy to engage in conversations with other hams in faraway parts of our world. Although this way of communication is easy for us to understand, it can appear somewhat bizarre to the non-amateur.

Imagine for one moment what the reaction would be at a bus stop if you were relating the events of a DX contact to another ham in this manner:- "I had a fine QSO with a HAM living in Bora-Bora." Your companion could reply in this manner - "FB OM, did you make the contact from your QTH?" and you reply "Yes, and we will be QSLing. This is the only DX station I needed to complete my DXCC award." There may be a few raised eyebrows.

I am sure too that many of you have experienced the somewhat surprised reaction of your spouse when you addressed her as your XYL for the first time!

But, of course, we amateurs know the reasons for and values of using these techniques (not to mention the convenience). If we had to struggle through long sentences to relay and receive any messages, it would become a chore and not a fun thing anymore. Suppose you were in contact with a rare DX station, and wanted to receive and relay pertinent information as quickly and accurately as possible. The purpose of these coded signals then becomes apparent.

But, amateur radio can be more than just a hobby. There are times when it could be a valuable service to the community in rescue efforts and emergencies. This is another area where the advantages of using these "coded" or "Q-" signals comes into play.

Q-signals have their greatest advantage on c.w. operation and are widely used internationally for obvious reasons.

This is my contribution for this month's issue of the RAMBLER. I certainly would encourage any club members to submit to our editor, Jerry Wells, (VE3CDS) any articles that may be of interest to amateur radio. Thank you.

73
Leo, VE3NVL

An Amateur Radio Operator is.....

- a communicator, a hobbyist, an exchanger of ideas and above all a goodwill ambassador.



Canada has concluded agreements or arrangements with the following countries to permit licensed amateur radio operators to operate radio stations while temporarily in the other country:

Antigua and Barbuda
Australia
Austria
Bahamas (Commonwealth of the)
Barbados
Belgium
Bermuda
Botswana (Republic of)
Brazil (Federative Republic of)
Chile
Colombia (Republic of)
Costa Rica
Denmark
Dominica
Dominican Republic
Ecuador
Finland
France
Germany (Federal Republic of)
Greece
Grenada
Guatemala (Republic of)
Haiti (Republic of)
Honduras (Republic of)
Iceland
India (Republic of)
Indonesia (Republic of)

Ireland
Israel (State of)
Italy
Jamaica
Japan***
Luxembourg
Malta (Republic of)
Netherlands (Kingdom of the)
New Zealand
Nicaragua
Norway
Panama (Republic of)
Papua New Guinea
Peru
Philippines (Republic of the)
Poland (People's Republic of)
Portugal
Saint Lucia
Senegal (Republic of the)
Sweden
Switzerland (Confederation of)
Trinidad and Tobago
United Kingdom of Great Britain
and Northern Ireland
United States of America
Venezuela (Republic of)
Yugoslavia

2. Canada has concluded agreements or arrangements with the following countries to permit the transmission by Canadian amateurs of international communications on behalf of third parties:

Antigua and Barbuda
Australia
Bolivia (Republic of)
Chile
Colombia (Republic of)
Costa Rica
Dominica
Dominican Republic
El Salvador (Republic of)
Grenada
Guatemala (Republic of)
Guyana
Haiti (Republic of)

Honduras (Republic of)
Israel (State of)
Jamaica
Mexico
Nicaragua
Paraguay (Republic of)
Peru
Trinidad and Tobago
United Kingdom of Great Britain
and Northern Ireland***
United States of America
Uruguay (Oriental Republic of)
Venezuela (Republic of)

** This third party traffic agreement is restricted to ~~message~~ on behalf of third parties from "special events stations" in the U.K. to amateur stations in Canada.

GRRL NEWS

SPECIAL BULLETIN

The appeal in the Jack Ravenscroft case has been partially successful. For those unfamiliar with the case, Jack, an Ottawa-area amateur, was taken off air and ordered to pay costs and damages to a neighbour who had complained that Jack's Amateur Radio transmissions had interfered with the operation of electrical and electronic equipment in her home. That decision was reviewed by three justices of the Ontario Court of Appeals in Toronto on January 29-30. At the moment, no written record of their judgement is available. However, the following points, taken from notes made during the verbal presentation of the judgement, are believed to be correct:

1. The injunction banning Jack from transmitting is lifted and Jack may return to the air.
2. However, Jack must, within 90 days, arrange for modifications to his neighbour's equipment, modifications that will suppress interference resulting from his transmissions, to a standard approved by DOC. Failing this, upon application to a district court judge, the injunction is reinstated.
3. If Jack's neighbour refuses to allow such modifications, the injunction is lifted permanently.
4. The award to Jack's neighbour is increased from \$2500 to \$5000. The judges stressed that this award was to compensate Jack's neighbour for inconveniences suffered. Jack will continue to be responsible for 60% of the costs incurred by his neighbour prior to the original trial. No additional costs are awarded, either to Jack or to his neighbour. This basically leaves Jack and his neighbour responsible for their own costs.

This bulletin is being prepared only hours after the judgement was handed down. It is probably dangerous to speculate on what this judgement means for the Canadian Amateur Radio community. However, the judgement seems to imply that:

1. Solving an Amateur Radio interference problem is a responsibility that must be shared by both the radio amateur and those experiencing interference. The amateur must be prepared to arrange for modifications to susceptible equipment, modifications that will suppress the interference. Those experiencing the interference must be prepared to accept these modifications. If they do not, the amateur may continue operating.
2. DOC cannot avoid becoming involved in these matters, even if the interference is to non-radio equipment. In fact, they must become the arbitrator in these matters and determine when the amateur has done all that can be reasonably expected and when those experiencing interference must take responsibility for the susceptible nature of their equipment.

At the time this bulletin was prepared, there was no word on whether the judgement was acceptable either to Jack or to Jack's neighbour.



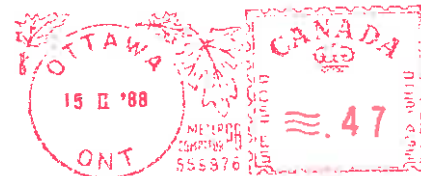
SALE! SALE! SALE!

It's February and that means that the great OVMRC membership sale is now on! For persons joining the club between now and May we have a half-price membership of only \$7.50. This membership is for a half year only and expires, as all memberships do, on October 31, 1988. So why not give us a try and join the other 136 members of the OVMRC.

The club's amateur radio course will be over by the time you read this and the students will be writing the exam at the DOC on the day of our club meeting. As you will know, J-P Gendron VE3PXZ has already passed the exams. Several other members of the class have passed the Regs exam or their code tests. In the coming weeks we should see several new amateurs on the air.

Fat Brewer
VE3KJQ

OVMRC
P.O. BOX 5530 STN F
OTTAWA ONTARIO
K2C 3M1



FIRST CLASS

FIRST CLASS

JIM HAMILTON VE3GJY
2038 ARCH ST.
OTTAWA ONT.
K1G 2H1