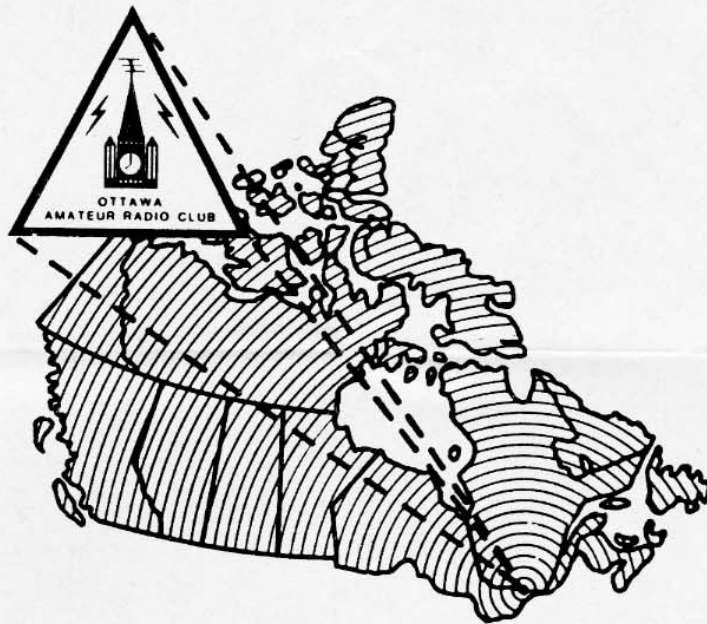


MAY 1987

THE GROUNDWAVE



Club Call VE3RC

Repeater VE2CRA



THE GROUNDWAVE

Official Bulletin of the Ottawa Amateur Radio Club, Inc.

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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) at the National Research Council Auditorium, 100 Sussex Drive, Ottawa, at 2000 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.

THE OARC EXECUTIVE normally meets on the second Wednesday of each month in the Board Room of CFRA, 150 Isabella St., Ottawa, 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. They may get reprinted in far away places; and the family will be proud of you.

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.

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 member.

A \$100 refundable deposit is required for the belts. 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.

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.

MINUTES OF THE OARC GENERAL
MEETING OF APRIL 1, 1987

The meeting was convened at 8:09 p.m., local, by the president, John, VE3NVF. He greeted visitors: Frank, VE3DQB, and Duncan, VE3OM. They were invited down at coffee break for a free coffee and GROUNDWAVE.

On a motion by Bill, VE3UD, and seconded by Ralph, VE3GG, the minutes of the last general meeting were adopted as read. No objections - CARRIED.

John invited Dave, VE3JTZ, up. Dave announced he has volunteered to co-chair the Field Day event again this year, along with Mark, VE3OWL. Dave plans to have Field Day in Britannia Park again this year. Field Day will co-host the club picnic also. Dave and Mark are looking for people, starting now - call either one and volunteer - and plan to run a Field Day net again.

Dan, VE3EBI, noted the CARF elections are not over yet and encouraged members to send in their ballots. Dan is also running in the election this year.

Harrie, VE3HYS, explained to members present that the voice linking project is progressing with the acquisition of two donated 450 MHz radios. Thanks go to the Pioneer Amateur Radio Club. Harrie is still looking for parts for the 2m and 220 repeater and 260' of hard line for each antenna. Harrie invited those wishing to help to contact him.

Dave Goldsmith, VE3FM, stood to give a report on EMARG. The Emergency Measures station, VE3OCE, has now been set up at the 10th floor, 222 Queen Street. The Region has approved funds for part of the voice linking project but it must still get provincial approval. A call-out system has yet

to be written. Dave has a form to fill out, at no cost, and an information sheet, for potential members. There will be a meeting later this month to firm up membership and issue IDs. There will be a simulated emergency during May at the airport.

Jim, VE3JPC, is going to Senegal, May 1st to June 2nd. He is going as a DOC employee and ham, to show the government there how a Packet/Amtor system could be set up to link Kenya and Senegal. For his expedition he is looking to borrow an FT20898R, a KAM tnc and 2m antennas. This would be an opportunity for hams to shape the communication future there.

The OVMRC flea market is happening on Saturday, April 4th, at Canterbury High School. Talk-in will be on VE3TWO, 147.300 +600.

Keith, VE3GFI, announced a teleconference to be broadcast on VE2KPG, on Friday, May 8th, starting at 8 p.m. The conference will feature speakers Ray, K6DUE, Bill, WA6ITF, and Frosty, N6ENV, talking on the art of selling amateur radio.

Samson, VE3JSP, announced that on Friday, May 22nd, Colonel By High School is having their activity day and he would like to set up a ham radio display. He is seeking volunteers and you can reach Samson at home at 833-2801 or work at 745-9411.

Bob Citulski works at National Defence Headquarters and they are looking for people connected with ham radio and the reserves. Specifically, they are looking for communication support in the Golan Heights.

Paul, VE3JLP, gave members the following DX tips: 9Q Zaire - 9Q5KI and 9Q5DA will be on 14.014 MHz, CW, heard at 2149 and 2204 UTC respectively; 9L Sierra Leone - 9L1IS

and 9L1GG will be on 14.010 MHz, CW. Sam and Greg were heard at 2250 and 2225 UTC respectively; and a hot tip for hams into real estate, KP6 or KHS5 Palmyra Island is up for sale. It is 1,000 miles South of Hawaii, 600 acres and has remains of a WWII base on it. Great for recluses on a permanent DXpedition! Lastly, 4ULITU, Geneva, will be reactivated by our very own Paul, VE3ICV, April 23-30, on 14.140 MHz, at 1100 UTC.

Gord, VE3PPE, stood to read a recommendation by the executive, as a motion by John. "The executive recommend to the club that Mike be given the chance to enter the Joe Norton award and, if he not succeed, that he be given \$280 to pay for his first year." After discussion, John retracted his motion. Dave, VE3FM, made two motions: (1) That Mike be allowed to enter the Joe Norton award, and (2) that he be given \$280 should he not succeed. Seconded (both) by Merv, VE3CV. After further discussion, a vote was held on motion one. Members present were in favour - CARRIED. Regarding the second motion, it was felt inappropriate and biased. Members present voted 20 for, 26 against, 1 abstention - motion DEFEATED. At this point John invited all down for coffee and to review the homebrew entries for themselves.

At 9:22 p.m., the meeting was brought back to order and Paul opened the homebrew presentations.

Ian Citulski, age 10, set up his school science fair display on morse code. Bob, his father, discussed the elements of a successful science fair entry and Ian demonstrated by sending his name. Paul presented Ian with a book on the world of ham radio for his efforts.

Dave, VE3KMA, presented several of his projects: a CB-cone-6m vertical whip, a PIN diode TR switch, a mosfet power

switch, a 12 to 20V supply using voltage doubling, DTMF generator, DTMF to RS232 converter and a deepskirt digital filter.

Ying, VE3FUB, showed us a complex impedance bridge that can be built for a certain frequency. The idea is simple and elegant, it employs precision lines and diodes.

Frank, VE3DQB, showed his FOX transceiver. It is QRP, for 20m, and fits in an electrical junction box. He has even had a couple of QSOs with it!

Peter, VE2PJC, erected his 1/4 wave 2m antenna in front of members present. It features a neat machining job on the radials, end caps, a PVC press together mast and a base made of machined denture material.

Dave, VE3FM, brought in his 8 antenna "Dopple-scant" direction finder system. The antennas are mounted on a large metal base, designed to be mounted on his car. It can resolve direction to 20 degrees, with its 8 LEDs mounted on the control head.

Clare, VE3NPC, showed a collection of modules he'd built for his IC02AT. They included a speaker/amplifier, a microphone connector/amplifier, IM filter, speaker magnet - cone magnet mount 5/8 wave antenna.

Fred, VE3IO, brought in his battery minder circuit. It has been operating successfully since last year.

Gord, VE3PPE, had the VE2CRA repeater controller on hand - it is all built now, only needing software. He also had a tone oscillator built as a classroom demonstrator, a Double Ducky control head and an adaptation on VE3BBI's London tone alert that featured a technique for making PC boards with a photocopier.

The three judges - Harrie, VE3HYS, Dave, VE3J TZ, and Dave, VE3ZP, went in the back room for what seemed like hours before reaching a decision.

Dave, VE3J TZ, announced 3rd place winner Peter, VE2PJC; 2nd place winner Dave, VE3FM; and 1st place winner Clare, VE3NPC.

Harrie announced our prizes had been obtained from the CRRL, Bytown Marine and Wackid's.

On a motion by Dave, VE3J TZ, seconded by Harrie, VE3HYS, the meeting was adjourned. No objection - CARRIED.

NOTES

1. Joe Norton Award - there have been three submissions. The judges who will choose the winner from these three are Bill Wilson, VE3NR, Gord MacKay, VE3JMT, and Brice Wightman, VE3EDR.
2. Field Day will take place in late June. It is hoped that it will again be in Britannia Park where it was so successful last year. Help is needed - both manpower and equipment. Call Mark Farey or Dave Anderson to volunteer.
3. Membership Problems - In the last two years our membership has dropped drastically. If this keeps up, we may have to cut our services in some way. Next meeting, bring a friend so he/she can see what a good club we have.
4. Burlington Hamfest - Hobby Show and Flea Market; Saturday, July 11th, at the Burlington Central Arena on Drury St. Admission: \$5.00. VE3RSB 147.81 in/.21 out; simplex 146.52.

PACKET RADIO

The OARC Packet Radio group meets to help newcomers to this mode in the hobby and to discuss technical aspects of the hobby. The next meeting will be on Wednesday, May 27th, at 7:30 p.m. at the Museum of Science and Technology (St. Laurent Rd.). The average attendance is 35. You are invited to attend, and bring a friend.

A voice net is held most Monday evenings after the Capital City Net on VE2CRA. Please join the net, or listen in and keep abreast of the projects and new technology.

A working group is active with linking, networking and bulletin board projects. If you have any questions or wish further information, please contact Dick Atkinson.

LETTER TO:

The Editor, GROUNDWAVE
Mike James, VE3PDE

Dear Mike:

I have just finished reading the April GROUNDWAVE from cover to cover. As usual, I find it interesting, well planned and set up and timely.

The story "The Member Who Never Came Back" and your comment touches a tender spot and makes a relevant point. A guy can sure be alone in a group if someone neglects to smile and say "HI".

I, for one, appreciate your efforts and say thanks to you and your crew for a fine publication.

Sincerely,
Fred D. Green, VE3IO

TEMPUS FUGIT EVEN IN HALIFAX

From the November 86 Bulletin of the Halifax Amateur Radio Club Inc., the editor writes, "This will be the last bulletin that yours truly will be affixing his signature to, as effective January I will no longer be the bulletin editor, due to my failing eyesight. Checking back in my files, it shows Binx Fisher, ex VE1AFN, as editor for 1948, Doug Johnson, ex VE1OM, 1949 to 1952, and I took it over in January 1953 so I think it is about time someone else took it over." The retiring editor is of course Brit Fader, VE1FQ, who must have set some sort of record for devotion to duty on behalf of his ham club.

Brit goes on to say, "Adding to nostalgia, my files reveal that during the years since the war, the club has used the following locations for club meetings: Old Wren Barracks (Corner Cobourg Rd. & Oxford St.), RCAF Gorsebrook Barracks, Cathedral Barracks (now the site of the Rehab Center on University Avenue). We then moved to the Halifax Police Station on Brunswick St., which is now part of Scotia Square. We then moved to the N.S. Technical College, and from there to our present location at NSIT.

". . .I will also be vacating the position as VE1 District QSL Bureau Manager effective January 1, 1987. I have held the post since January 1, 1939. There will be an announcement as to who will be taking over the position."

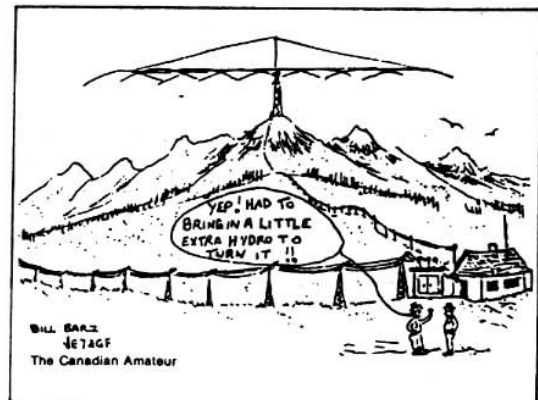
Thirty-four years as the Halifax club editor and forty-six years as VE1 District QSL manager certainly warrants a hearty 'well done' from the amateur community at large and specifically from Brit's many friends in the Ottawa Amateur Radio Club.

SOME CATCH-UPS

Twenty-five years have slipped by since the launch of OSCAR-1. As of October just past, AMSAT OSCAR 10 was in trouble. The engineering and general beacon had been locked on and transmitting garble in recent weeks. More recently, observations failed to find any trace of MA-10. There appeared to be a slight possibility of the beacon starting up again with a better sun angle and November would tell the tale.

Russian filings with the International Frequency Registration Board for new amateur radio satellites RS-9 and RS-10 propose the use of Mode A and Mode K. Mode A is 2 metres up and 10 metres down while Mode K is 15 metres up and 10 metres down.

de ARRL and MARCOGRAM
Montreal Amateur Radio Club



de The Canadian Amateur

COMIC RELIEF IN THE RAVENSCROFT CASE

Beware of the "impeccable source" often found on 75 phone, whose information is based on words from a good (and reliable) friend.

Personally, I prefer the written word, it is less likely to be mis-interpreted and provides specific terms of reference.

Questions have been asked as to why the Houghtby vs Ravenscroft case couldn't have been settled out of Court. The logical answer to that is "you had to be there."

Read the following and judge for yourself:

Jack Ravenscroft, VE3SR

OFFER TO SETTLE

The Plaintiffs offer to settle this proceeding on the following terms:

- 1 (a) That the Defendant will be permitted to operate at a reduced wattage, with his large aerial within the azimuth of 260° to 60° ETN at whatever hour he desires on whatever days he desires.
- (b) The Plaintiffs will agree to one further test, that the Department of Communications failed to conduct, to determine at what reduced power level the defendant can operate within the 260° to 60° ETN azimuth, such that the 10% "splash back" of power does not cause interference to the Plaintiff's equipment.
- (c) The Defendant's large aerial (transmission/receiving end) will be directed to a suggested 260° ETN as a neutral position and indicator of non operation

after each and every transmission exercise.

- (d) The Defendant's small vertical aerial will be dismantled entirely and neither this aerial nor any other aerial or equipment will be installed, relocated or expanded upon.
 - (e) The transmission/receiving end of the large aerial will never be directed in the 59° to 259° ETN zone.
 - (f) The Plaintiffs will not complain without just cause, and the Defendant will agree in writing to adhere to the terms and conditions of operation as proposed.
 - (g) If, and when future interference occurs, such that the Plaintiffs have reason to complain, the Defendant will take whatever immediate remedial action is necessary.
 - (h) The Plaintiffs will not be required to suppress any more of their equipment and will not be required to permit any persons into their home at the request of the Defendant.
 - (i) The Defendant shall reimburse the Plaintiffs out of pocket expenses and legal fees, but not to include expenses that would be incurred in an effort to settle this matter as described aforesaid.
- 2 Or in the alternative, the Plaintiffs propose:
- (a) To agree to attempt to relocate within 60 days upon acceptance of this offer and on condition that a final sale move can be effected and financially approved provided that the

defendants pay to the Plaintiffs the sum of Thirty Thousand Dollars (\$30,000.00) two weeks prior to the closing date of sale, for out-of-pocket expenses and legal fees and to off-set any loss incurred as a result of the effect of the Defendant's operation on the sale value of the Plaintiff's home.

DATED AT NEPEAN, this 2nd day of January 1986.

KEBE/CANNON/HENRY
Solicitors for the Plaintiffs

VOICE LINKING

Things are starting to come together. The Pioneer Amateur Radio Club has generously donated two Mocom 35 450 MHz transceivers to be used as part of the 450 link between Ottawa and Mountain Grove.

Dave, VE3FM, has also announced the availability of funds from the Regional Government to help us.

What we need now are some people who can do some design work for control circuits, etc., modify radios, build power supplies and boxes to put everything in.

There is still lots to do. If you can help, give myself or any member of the executive a call.

73
Harrie, VE3HYS

PROPOSED RADIO WOULD BE CROSS BETWEEN PHONE, WALKIE-TALKIE

Washington A cross between a walkie-talkie and a telephone that would allow people to hold private wireless conversations across short distances has been proposed by the Federal Communications Commission. The new consumer radio service, which commission engineers hope could be on the market in about two years, would be as cheap as a Citizen's Band radio - \$50 to \$80 - but not be "a national party line".

The engineers see people using "consumer radios" to talk across shopping malls and football stadiums or while travelling in two separate cars along the highway.

As explained by Raymond A. Kowalski, chief of the special services division of the commission's private bureau, the consumer radio would signal when a message is being sent and the speaker would turn on only when a message is being directed to an individual receiver. With a CB radio, a user must listen to a channel continuously to be sure of not missing calls. The hand-held radios would have individual "addresses" like phone numbers so they would "know" when they were being called. The calling device would use computer technology to find an unused channel, and send the signal on it to the receiver.

de Scarborough ARC News

DO YOU HAVE AN RFI PROBLEM?

Check into the Hints and Kinks Net on 7062 KHz at 0230 UTC on Fridays, following the Aurora Net.

de CARF NEWS SERVICE

LETTER TO:

John S. Belrose, VE2CV
Kingsmere Park Gatineau A.R.A.

The North American Teleconference Radio Network will present an evening with the Pro's on Friday night May 8th (8:00 p.m. Central Time). Sharing the microphone will be Roy Neal (K6DUE), 'Frosty' Oden (N6ENV) and Bill Pasterna (WA6ITF). Each of these gentlemen have a unique and particular interest in Amateur Radio.

The North American Teleconference Radio Network is heard throughout the North American continent on more than 200 Amateur Radio Repeater Stations.* A list of those stations participating can be obtained with a S.A.S.E. to the Net Manager.

The May 8th program will deal with the "Art of Selling Amateur Radio". Spanning from the printed page to the space age we will hear how 'Ham' radio is at work today and catch an exciting glimpse of where it may very well be tomorrow. Through the years of experience we will hear the where, when and how of obtaining credible publicity for Amateur Radio. In the cliché 'You've come a long way baby!' lies a great truth concerning this Hobby. See just how true it really is when throughout a short span of history we have come from the spark-gap transmitter to the geo-stationary satellite. From the morse code to the high speed data transfer of the computer.

Questions will be accepted throughout the program from interactive stations across the continent.

Become a part, join this exciting Network of stations. For more information write:

North American Teleconference Radio Network
Midway Amateur Radio Club
Timothy Loewenstein (Net Manager)
P.O. Box 1231
Kearney, NE 68848-1231

*Editor's note - VE2KPG is included.

SPECIAL CALL HUNTERS -
CALL AN AMBULANCE

Collectors of special call signs can call an ambulance and get a special QSL card to prove it. GB4 SJA, the special event station celebrating St. John Ambulance Brigade's Centenary in England will be on the air throughout the 20th of June 1987 during the Great Party to be held in Hyde Park, London, England. The station, operated by the Radio Society of Great Britain on behalf of St. John Ambulance, will monitor 10, 15, 20 and 40 meters. They prefer to use phone to allow non-amateurs to send voice greetings, and they will QSL all contacts with the special GB4 SJA card. They may accept CW traffic, depending on the traffic load and the operators.

Why not double your pleasure by inviting a member of St. John Ambulance to your shack as you make contact. Watch him experience the thrill of passing on his personal greetings to his overseas colleagues at their centennial party and get yourself an unusual QSL card to boot.

Chas. King
VE3PDK

USSR AMATEUR SATELLITE PLANS

The Russians are developing Amateur Satellite Service Systems (ASSS). Plans include the launching of one or two Amateur satellites designed for use by radio amateurs the world over, and for educational and scientific experiments.

The satellite network to be known as RADIO-M, should be in use by December 31 1986. Data supplied by USSR Ministere des Postes et Telecommunications, 7 Rue Gorki, Moskva Minsviaz, Moskva.

Orbital Information

Inclination or Orbit: 83 Degrees;
 Period: 105 minutes
 Space-to-Earth Service area: The whole Earth, depending on the position of the satellite in orbit, and the position of the satellite's orbit in relation to Earth.
 Earth-to-space Service area: Same as above.

Characteristics of Space Station
 Transmitting Antenna

Antenna gain - 1 dB radiation pattern. Omnidirectional polarization-linear.

Characteristics of Receiving
 Earth Stations

It will suffice to have a receiving antenna with a gain of one to two dB and a receiving system with an equivalent noise temperature of 1000 to 15000 K.

de Peel ARC

HOT-WATCH

Established in 1985

BULLETIN NO. 1 - March 13, 1987

- #-39 YAESU FT 208R Ser. No. 4C370126
 ID NONE
 Stolen out of car.
 Gear of VE3OEU in Chatham, Ont.
- #-41 IC-202AT Ser. No. 050592
- #-42 Icom Microphone
- #-43 30 Watt 2M Amplifier
- #-44 North American Repeater Book
- #-45 Carrying Bag, etc.
 Gear stolen from car.
 Second breakin in 60 days
 Above gear of VE7HFP of Port Moody, B.C.
- #-46 AZDEN PCS 3000 Ser. No. 75502
 Had home brew touch tone pad
 Gear of VE3NBB, Downsview, Ont.
- #-47 TAIL TWISTER NEW
 Ser. No. SEW85141
 Stolen from Flea Market
 Property of MacFarlane
 Electronics, Battersea, Ont.
- #-48 LARSEN MAG MOUNT NMO type
 With NMO 220 antenna
 Stolen from Flea Market
 Property of Scarborough Amateur
 Supply (London)
 Rep. by VE3OLN

(Identifying gear with your call letters seems like a good idea. The Club has an engraving pencil available to any member. Ed.)

The following extracts are from a report by VE3SR, Jack Ravenscroft, to CARF, CRRL, RSO and ARRL and reprinted with the permission of the author.

THE PASSAGE OF TIME

A Civil Court order issued in the Ottawa District Court on July 25, 1985, put VE3SR off the air. This ruling was upheld on April 7, 1986, with the addition of a fine of \$2,558.00, bearing an interest rate of 13% per annum commencing December 1984. The cost to this point to the amateur fraternity and numerous support groups had reached nearly \$20,000 to learn that under certain circumstances transmitter operators could be classified as nuisances in a Canadian civil court.

To change this ruling, the only option available was the Ontario Court of Appeal. This is a very costly business, monetarily and emotionally. We proceeded on faith: you have not let us down.

In retrospect, it is ironic that when my original lawyer was asked, in his opinion, what the probable cost of this case would be, he suggested a figure of \$1,400.00 at the outside, perhaps \$5,000.00 if we had to go to trial. At the time this appears in print, it is estimated that between \$40,000 and \$45,000 will have been expended on legal fees alone. It is doubly ironic that with cooperation, this problem could have been resolved for less than \$200.00.

At heart, I have always been a long distance communicator. Consider my utter frustration when, during the latter part of January 1987, Peter Island (3Y2GV and 3Y1EE) appeared on the scene. This was to be country number 360 and logically the last sticker possible on my DXCCH certificate. I could only listen; DX-ers will understand.

Our sincere thanks go to those who have assisted us, not only monetarily but also by necessary communication. And not only to Canadians: we extend our thanks to the United States, England, and many other countries, some as far away as Papua, New Guinea, who have been most generous.

We have come a long way with encouraging results. However we still need your support - the passage of time takes its toll.

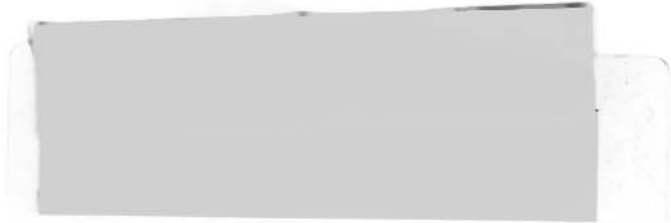
John Ravenscroft, VE3SR
14 February 1987

CARF, the Canadian Amateur Radio Federation, reports that they have been contacted by the Russian Embassy to provide Amateur Radio communications during an expedition from the USSR to Canada via the North Pole in the Spring of 1988.

de The W5YI Report

If lawyers are disbarred and clergymen defrocked, why aren't electricians delighted, musicians denoted, cowboys deranged, models deposed, tree surgeons debarked, dry cleaners depressed and amateur radio operators decoded?

de Peel ARC



The Ottawa Amateur Radio Club, Inc. Box 8873, Ottawa, Ont. K1G 3J2			
President	John Drajewicz	38 Fuller Street	722-1854
	VE3NVF	Ottawa, Ont., K1Y 3R8	952-1904
Vice- President	Paul Cooper	R. R. 2,	821-2167
Secretary	VE3JLP	Metcalfe, Ont., KOA 2PO	
	Gord Dey	49 Stable Way	592-0680
	VE3PPE	Kanata, Ont., K2M 1A8	726-5219
Treasurer	George Caskey	19 Argue Drive	224-6415
	VE3NJJ	Nepean, Ont., K2E 6S2	
Past- President	Dan Holms	33 Crownhill Street	746-0968
Directors	VE3EBI	Gloucester, Ont., K1J 7K5	
	David Anderson	299A Craig Henry Avenue	225-0886
	VE3JTZ	Nepean, Ont., K2G 4E9	592-2122
	Mark Farey	26 Naismith Crescent	592-2522
	VE3OWL	Kanata, Ont., K2L 2K8	592-2122
	Ralph Thomas	2180 Benjamin Ave.	729-9252
	VE3GG	Ottawa, Ont., K2A 1P4	
Packet Group Chairman	Dick Atkinson	20 Mancil Drive	825-5619
Repeater Chairman	VE3JBO	Nepean, Ont., K2J 2J5	
Net Manager	Harrie Jones	2-147 Arlington Avenue	237-6427
	VE3HYS	Ottawa, Ont., K1R 5S6	233-6241
	Bruce Lauer	10 Winlock Crescent	829-9471
	VE3MJV	Nepean, Ont., K2G 3X4	957-1825
Emergency Coordinator	Ken Kendall	777B Springland Drive	731-0892
	VE3IHX	Ottawa, Ont., K1V 6L9	
EMI Committee Chairman	Ralph Cameron	30 St. Remy Drive	825-1634
Membership Chairman	VE3BBM	Nepean, Ont., K2J 1A3	225-2850
National Cap. Award Manager	Peter Hafichuk	118 Ivy Crescent	745-0608
	VE3LBW	Ottawa, Ont., K1M 1X6	993-1740
	Brian Summers	2231 Hillary Avenue	523-1535
	VE3JKZ	Ottawa, Ont., K1H 7H7	