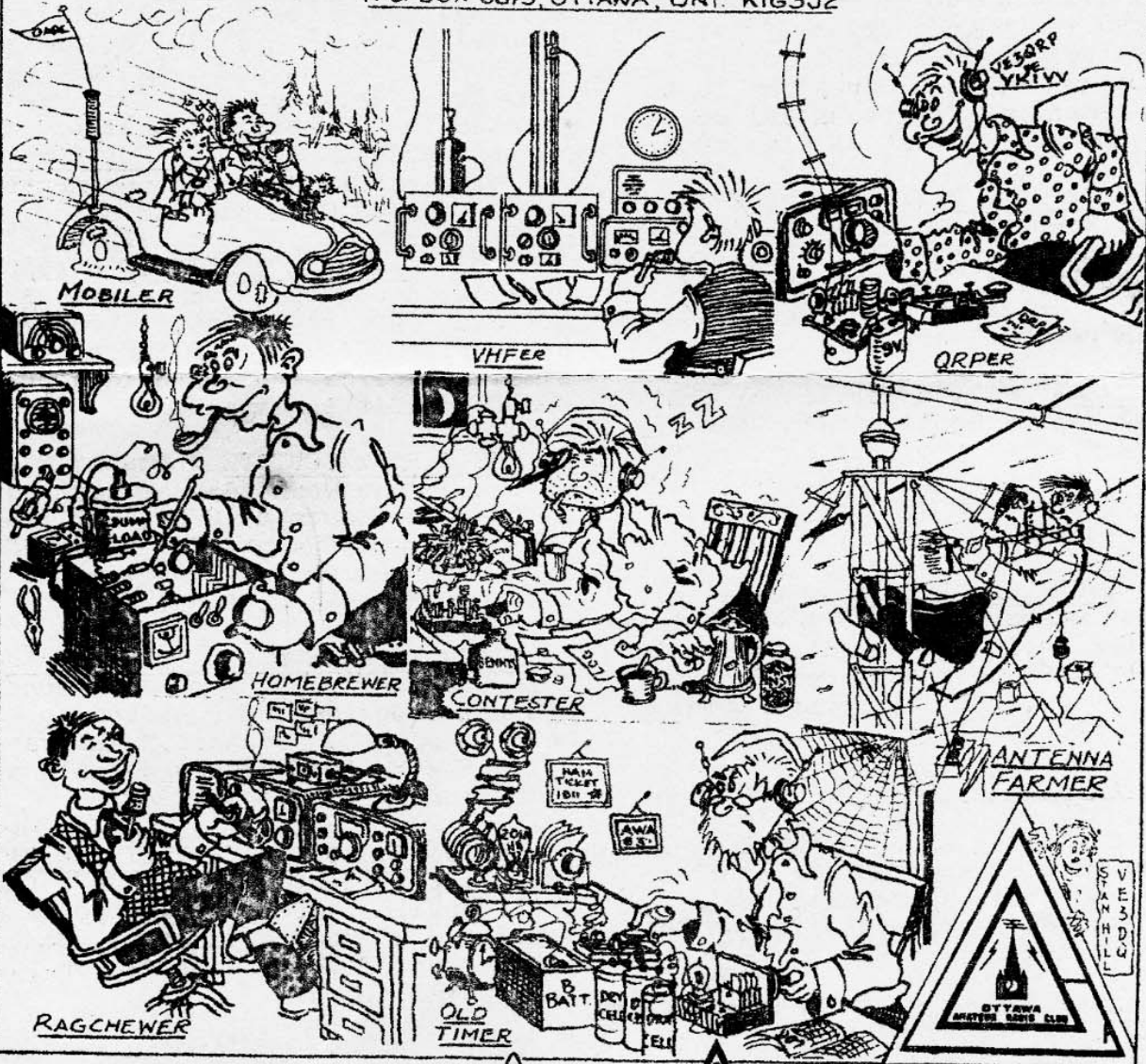




# THE GROUNDWAVE

THE OFFICIAL BULLETIN OF THE OTTAWA AMATEUR RADIO CLUB INC.  
P. O. BOX 8873, OTTAWA, ONT. K1G3J2



**AMSAT**

Club Call VE3RC



Repeater VE2CRA

--- THE GROUNDWAVE --- OFFICIAL BULLETIN OF THE OTTAWA AMATEUR RADIO CLUB

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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 Ottawa regional area and to the advancement of the technical competence and achievement of Club members.

THE CAPITAL CITY NET meets every Monday evening at 200 hours on the Club repeater, VE2CRA (146.34/146.94) to pass traffic and to make announcements of interest to Amateurs in the Ottawa regional area.

THE SWAP NET, a service of the Ottawa Valley Mobile Radio Club Inc., is repeated on the Capital City Net and is conducted by Ed Morgan, VE3GX. To list items or make enquiries, call Ed at 733-1276.

An ENGRAVING PENCIL is available to Club members to mark their valuables for positive identification in case of loss or theft. For further information, contact Penny Robinson VE3ERO at 225-1276.

HOSPITAL VISITATIONS to any Amateur confined to the Civic Hospital will be made by Maureen Neill VE3FZY. If you know of any amateur confined there who would appreciate a visit, call Maureen at 725-4748 (233-9941 after 5:30 p.m.).

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. See page 5 for further details of the next regular meeting.

SEE YOUR NAME IN PRINT!!! -- in National and International publications. Write an article for the GROUNDWAVE and watch it travel! Many local articles have been reprinted in Club bulletins across North America. DEADLINE FOR COPY for all articles and announcements is the second Wednesday of each month.

MATERIAL PUBLISHED herein does not necessarily represent the official OARC viewpoint. Items may be reprinted by Amateur Radio or similar publications, provided that proper credit is given.

THE OARC EXECUTIVE normally meets on the second Wednesday of each month in the Board Room of CFRA, 150 Isabella St., Ottawa at 2000 hours. Contact the President to confirm the date of the next meeting.

RENEW YOUR ARRL AND CARF MEMBERSHIP through the OARC to save money order and postage charges and to help your Club. Contact Brian Barsalou VE3IBX for further details and remittance forms.

DOMINION STORE CASH REGISTER TAPES are being collected by the OARC for a worthwhile cause--so save yours and those of your neighbours. Contact any member of the executive for further details.

RADIO AMATEUR CALL BOOKS are available for use at the Orleans, Nepean, downtown and other city libraries. Enquire at the information desks for further information.

MINUTES OF THE OTTAWA AMATEURRADIO CLUB, INC. 7 January 1981

The meeting was called to order at 2005 hours by Paul VE3ICV, President, with about 50 members present. One visitor, Bruce Gordon, was welcomed to the meeting. On a motion by George VE3DMC seconded by George VE3BNO, the minutes of the December meeting as published in the GROUNDWAVE were adopted. There was no business arising from the minutes.

Ray VE3JRX, Membership chairman, reported that there are approximately 300 members in the club.

Fred VE3IO, EMI Committee Chairman, reported that he had ordered several torroids to aid in solving interference work, and that these will be available to club members. Prices are: T-80--\$0.45 each; T-200--\$1.65 each; and 73101 beads--\$1.15 each. These may be ordered from Fred.

Bruce McMann, the auditor, reported that all was in order with the club financial books. A financial statement appears elsewhere in this issue of the GROUNDWAVE.

Dave VE3GSA reported that plans were well underway for providing communications support to the annual Ski Marathon to be held on February 14th and 15th, but that more volunteers (a total of 40) were needed to help. Those interested should contact Larry VE3CRX at 824-3753.

Gord VE3JSJ informed the club members present of the system now established in southeastern Ontario to link several repeaters to VE3RPT in Toronto using 450 MHz links. Repeaters in Toronto, Collingwood, Hamilton, Whitby, Bancroft and eventually Kingston will be linked together. Access to any of these repeaters can be obtained through any of the others by using a three digit touch-tone access code. It is hoped that Ottawa can be added to the link.

Graham, VE3BYT introduced the Members of the 1981 Club Executive who were elected by acclamation:

President --Brian Summers VE3JKZ  
V/President--Bill Nottingham

VE3ARZ

Secretary --Ray Charbanneau

VE3JRX

Treasurer --Lloyd Reed

VE3AYE

He then introduced the Candidates who had been nominated for the three vacant positions of Director: Joe Courtemanche VE2DZT; Jim Hayward VE3MJH; John Mitchell VE3DYJ; and George Schuthe VE3DMC. Graham also pointed out that the nominating committee had also nominated John Gilbert VE3CXL and Fred Green VE3IO. However, both Fred and John later decided to withdraw their names in order to give some of the other club members to serve on the executive. Fred agreed to continue as Chairman of the EMI Committee, and John offered to assist the new executive. Graham then supervised the election of directors. He stated that the results were extremely close and that the following were elected:

Joe Courtemanche VE2DZT

Jim Hayward VE3MJH

George Schuthe VE3DMC

Following announcement of the results, a motion to destroy the ballots by Ken VE3CCV seconded by Marcel VE3FNG was approved by the members.

The "free" raffle, open to 1980 club members present, resulted in four lucky members receiving some new, handy items for the shack:

Graham VE3BYT -- Power Bar

Doug VE3KMG -- Dummy Load

Dave VE3GSA -- 2 m antenna

Bill VE3IDC -- coaxial switch.

Ken Kendall, the planned speaker for the evening, was called out of town suddenly and therefor could not attend the meeting. Instead, on very short notice, John Henry gave a most interesting talk illustrated with slides on the AMSAT program.

--continued on p. 4

MINUTES -- continued

He informed the Club members present that a second AMSAT Phase III satellite will be launched on the ESA Arienne number 7--hopefully by that time the launcher will be more reliable and a successful launch will be achieved. The planned launch date is February, 1982.

Canadian Amateurs are taking the lead in the design and construction of the first Geostationary AMSAT which will be a part of the primary payload to be launched in July, 1983.

Following the talk by Henry, Paul VE3ICV turned the meeting over to the new Club President, Brian VE3JKZ. Brian reviewed the events of the past year and outlined several activities which might be planned for 1981. He assured the members that the new executive would try to organize and manage the club to the best of its ability over the next year. However, to be active and successful, the executive will need the help of the Club members.

The meeting was adjourned at 2200 hours.

PRESIDENT'S MESSAGE

Once again it is the start of a New Year for the Ottawa Amateur Radio Club, Inc. We finished 1980 with approximately 300 members representing a tremendous variety in talent and interest. It is not surprising that with such a large membership, we were able to undertake a large number of activities and to participate in many events.

Our club provided communications for the Ski Marathon, Shinerama and Metres for Millions. We held a Spring Banquet and summer picnic, put on a "show and tell" evening and had many excellent construction projects displayed for Home Brew Night. We produced an area directory, pub-

lished a monthly Club Bulletin--the GROUNDWAVE and sponsored a weekly net using the Club repeater VE2CRA. The Club's EMI Committee was very active in assisting amateurs solve interference problems and it also operated a clinic in the spring to check and adjust rigs and filters. The Club again topped its class in the Field Day held in June. It sponsored a very successful construction project, a power supply which cost the participants an amazingly little as a result of reductions on and donations of components. Through the wonder of two metre FM, the Club brought the magic of Santa Claus to hospital-bound and other area children. The Club sponsored Auction and Flea Market was a very popular event. And of course, there were the usual interesting and informative speakers, films and slide presentations at the monthly meetings.

There were probably other activities which I have forgotten to mention. However, the point I wish to make is that with 300 members, there are enough people to pursue activities for literally anyone's taste. Five to ten percent of the Club Membership participating in any one event may not seem like much; but that is anywhere from 15 to 30 people enjoying an activity of mutual interest. And that, surely, is our prime "raison d'être".

Your new Executive will have met by the time you read this column, and will have formulated a draft outline of club activities for the coming year. My personal goal is to encourage as many members as possible to help organize and participate in Club activities.

At the last meeting, it was suggested that we might link our repeater with the Toronto area repeaters. A great idea! Let's discuss it on the air, decide if we would really like to do it, study the feasibility and cost, then if possible, go ahead. Let's hold a "hidden transmitter" hunt, challenge another club to

OTTAWA AMATEUR RADIO CLUB, INC.

Expenses vs Budget

November 30, 1980

<u>REVENUE</u>	<u>Estimate</u>	<u>Actual</u>
Memberships	\$1683.00	\$1442.00
ARRL Memberships	17.00	---
Interest on Savings Account	100.00	334.84
Auction proceeds	200.00	277.82
Accounts Receivable from 1979	---	158.12
	<u>\$2000.00</u>	<u>\$2212.78</u>
 <u>EXPENSES</u>		
Groundwave	\$1172.37	\$1181.26
Directory(981.16 - 787.10)*	75.00	194.06
EMI Committee	60.00	47.35
Picnic	25.00	18.16
Field Day	100.00	33.34
Administration	551.00	477.95
Banquet(542.25 - 480.00)	60.00	62.25
Repeater	100.00	---
Hospital (maintenance)	25.00	---
Equipment	100.00	440.26
AMSAT	100.00	215.00
Ontario Trilliums	25.00	25.00
	<u>\$2393.37</u>	<u>\$2694.63</u>
 <u>DEFICIT</u>	 <u>\$393.37</u>	 <u>\$481.85</u>

\*Accounts Receivable --- \$110.00

<u>CASH ASSETS</u> (November 30th 1980)	Savings Account --	\$3117.97
	Chequing Account--	458.85
	<u>TOTAL</u>	<u>\$3576.82</u>

a softball game--and link it with a family picnic and some portable operation to tell the world about what we are doing. Let's hold a car rally, pursue some home brew and bulk buying activities and perhaps sponsor a "Capital City Award". Let's not forget our public service responsibilities and let's publicize our hobby more. We have the talent, the organization and (maybe) the funds. Our only limitation is ourselves. I invite you to contact me or any other member of the executive if you would be willing to sponsor or help with any of these, or other activities.

#####  
DEADLINE FOR COPY FOR MARCH  
GROUNDWAVE---February 11th 1981

NEXT MEETING

The next regular meeting of the Ottawa Amateur Radio Club, Inc. will be held on Wednesday February 4th 1980 in the Auditorium of the National Research Council, 100 Sussex Dr., Ottawa, at 2000 hours.

The featured speaker will be Joe MacPherson VE3CAT who will talk about Emergency Preparedness.

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I recently learned that our Club began in 1932 as the Ottawa Amateur Radio Transmitting Society. Let's make year 49 a bumper one so we can get a good start for our second half Century! 73, Brian, VE3JKZ

HAM RADIO IN THE SOUTHERN OCEAN

It's a source of endless fascination to me that through amateur radio I can communicate with people in some of the most isolated and unlikely places on this earth. Places that no cruise ships or scheduled airlines ever visit. Yet places where man has established a toehold, usually for the purpose of scientific research of some kind. The only trouble is that, since these places are rare DX spots, it's not often possible to have a real good ragchew. I have been fortunate to make contact with two or three such places when no one else seemed to be around waiting to break in for a quick QSO.

One such was ZS2MI on Marion Island, where there is a weather station operated by the South African government. It's about half way between Cape Town and the coast of the Antarctic continent, and David, one of the two radio technicians stationed there, told me all sorts of interesting things about life down there. The scientific team consisted of four meteorologists, two radio technicians and a medic. Communications with South Africa were maintained by radio teleprinter and radio telephone. Apart from the meteorological work, regular observations were made of geomagnetic and ionospheric conditions. There was also a very keen ornithologist from Belfast spending a season on the island, which was a nesting ground for many thousands of sea birds, including the Wandering Albatross, which has a wingspan of 11 feet - the largest of any living bird. David said he could see one of their nests from the Radio shack. The single large egg weighs half a kilogram. Weather on the island was always rotten - always cool (average about four degrees C) and usually very stormy. Marion is a volcanic island and the lava rock makes walking difficult. It's about 12 miles long and seven miles wide, and David and one of his colleagues had walked around it - a distance of 72 km -

with some difficulty, sinking into black lava mud up to their thighs at times.

The research teams spend about 12 months on the island until the annual relief ship brings their replacements from Simonstown in May.

Another remote island with many similarities to Marion Island is Campbell Island, 400 miles south of the southernmost tip of New Zealand. Like Marion, it's a rugged, mountainous volcanic island, cold, humid and windswept, where the New Zealanders maintain a weather and scientific station. This and much more I learnt from a half hour chat with Lance, one of the 13 men manning the station, and the operator of a ZL4QL/A with an ICOM 701 and a folded dipole antenna. The scientific work included monitoring solar noise and measuring and observing magnetic effects. Campbell Island also provides nesting grounds for many thousands of sea birds. Lance said there were 4000 pairs of Royal Albatross there with 4000 chicks. These great sea birds are so placid and unafraid of man that you could pick them up and remove the single egg they were incubating and they would do nothing. Enemies of the albatross do exist on the island: rats, presumably introduced by visiting ships, burrow underneath the nesting grounds and emerge to eat baby chicks. There are also hordes of sea lion pups, equally unconcerned when any of the New Zealanders wade in among them. Some cats are also said to roam the 40-square-mile island, though in the year he had been there Lance had not seen any.

The ICOM was being operated on battery power, as Lance was in the process of connecting up a new generator; I was his first contact for several weeks. Campbell Island, like many of the remote islands in the Southern Ocean, was discovered by a sealing ship "perseverance" in 1810, and in a few years the great herds of fur seals found there had

been wiped out. Whalers called there until the end of the last century, when an unsuccessful attempt was made to introduce sheep. The meteorological station was set up during World War Two.

The Australians have Macquarie Island and Heard Island; the French have Kerguelen and Crozet; the British have Tristan da Cunha and Gough Island and the Norwegians exercise sovereignty over Bouvet and Peter I Islands. Tristan da Cunha is the only one of these with a resident local population. Three have permanent scientific research stations. Most are rugged, inhospitable, with extreme climate, and unsuited to human habitation. So spare a kind thought for the intrepid hams who manage to set up DXpeditions to some of these obscure and lonely dots on the sub-Antarctic map.

de VE3HBF, SPARC GAP/ SPLATTER

#### HAMS AID POLICE

Amateur radio operators were patrolling Montreal streets in December to help police track down a purse-snatcher/murderer. Two hundred volunteers manned 25 private cars, patrolling the districts of N.D.G., Snodon and Cote des Neiges 24 hours a day.

London (Ont) Police commended the members of the London ARC for their participation in "Goblin Patrol" last Halloween. The news media publicized the existence of the additional patrol. Police attributed the low rate of incidents to the effect of the patrol.

#### AWARDS DIRECTORY

"The Amateur Radio Awards Directory of the World" is a new gestefax publication prepared for hams and swls and contains the rules, checklists, maps, and application forms for more than 150 of the most popular, prestigious, attractive, and sought after certificates, diplomas,

pins and plaques available to amateur radio fraternity. All continents and more than 50 countries are represented. The directory has a 8½ x 11 three-ring format for the easy removal and addition of pages. The postage paid cost of \$7.00 is small compared to the convenience of having it all together ready to use to keep track of your operating progress as you work stations and lastly being able to apply for the many FB awards for your shack wall or award album.

Please send cash, cheque, money order, 30 IRC or equivalent to author Garry V. Hammond, VE3GCO 5 McLaren Ave, Listowel, Ont N4W 3K1.

de L8don ARC Bulletin

#### ATTENTION OLD-TIMERS

For those old-timers who were licensed in 1925 or earlier, I will Xerox the entire page listing your call and address from my 1925 Callbook. Include one dollar to cover cost of Xerox, large envelope and postage. If you only need information on old buddies, etc., simply include a SASE with your enquiry.

Write to Sam Kofsky, N4ZB, 1420 Mount Vernon Dr, Holiday FL 33590.

de Worldradio

#### CB CONVERSIONS

A valuable booklet on the conversion of 11-metre transceivers to 10 metres as well as 12 metres is available for the cost of postage from Certified Communications, 4138 S. Ferris, Fremont, Michigan 49412. Just about any questions you may have are covered in this booklet -- even clues as to which CB rigs convert well and which convert badly, if at all.

Proof of your possession of an operating licence compatible with the conversion you plan to do must be provided.

de Worldradio

MEET YOUR NEW EXECUTIVELloyd Reed VE3AYE -- TreasurerBrian Summers VE3JKZ -- President

Brian hails originally from the U.K. and has been licenced for four years. Interested primarily in H.F. operation, he will be found DX'ing, ragchewing and infrequently contesting on CW, SSB and RTTY. During a recent Worldwide RTTY contest, Brian was the Ontario Champion! (However, he was the only VE3 to submit a log, so this wasn't too surprising!)

Brian is currently fiddling around with a microcomputer, trying to learn enough to start interfacing it with our hobby. If he should address the next club meeting in hexadecimal, you will know why!

Married with two children, Brian is 38 years of age and is employed by the Department of National Defence.

Ray Charbonneau VE3JRX - Secretary

Ray received his first ticket, VE3CBX in 1948--"the Good Old Days"-- after studying under George Lafleur VE3LG and being examined by Ralph Bunt VE3RI. He dropped out of the hobby for a while, and was relicenced as VE3JRX. For one reason or another he has never gotten an advanced ticket; perhaps the fun of two metres is working against him! He does have a HF transceiver of sorts which was originally crystal controlled, but which is now converting to general coverage.

Ray is also assembling a micro-processor, perhaps a masochistic endeavour! His prime objective is to learn the theory rather than to use it for a specific task. His other hobby, sailing, certainly takes up a lot of his time, not only in the summer, but with various courses it keeps him busy in the winter as well.

Ray has been employed by the Electrical Engineering Division of the National Research Council since 1951 and has been involved in medicine and biology projects to aid the handicapped since 1967

Lloyd received his first call VE4LD in 1954 when he was living in his home town, Winnipeg. Since 1964 he has operated using his current call VE3AYE from Kitchener-Waterloo, Sudbury, Richmond Hill and since August 1979, Ottawa. For a time, he also operated as G3XDF in Brighton, England.

Lloyd's prime interest is HF, both phone and CW. Currently, he is using a dipole antenna. He also operates portable from his cottage on Christian Island in Georgian Bay. He may soon add two metres to his operating with the purchase of a two metre hand-held.

His other interests include maintaining his cottage, wood-working and boating with a fourteen foot inflatable Zodiac equipped with a 35 hp motor.

Lloyd is employed by the Department of National Defence studying problems related to clothing and special protective equipment. He is married and has four children.

Joe Courtemanch VE2DZT -- Director

Joe and his wife Madeleine will be celebrating their thirtieth wedding anniversary this year. They have raised two boys and three girls and now have six grandchildren.

Joe finally realized his boy-hood dream of receiving an amateur radio licence after attending Gerry King's class of 1976 and he received his Advanced ticket less than a year later. He is Emergency Co-ordinator for the Province of Quebec, Region 7.

He is employed by the Citizen as Data Centre Manager where he implemented their computer system which now includes seven computers and about 80 terminals, four of which are portable. Some of these are located at strategic locations in the area such as the police station, city hall, etc.

-- continued on page 9

New Executive -- continued

Joe enjoys building and improving equipment for our hobby. He led the highly successful club project, a power supply, last year. His other hobbies are woodworking and photography.

Joe says that he is happy to be part of your "81" Executive and promises to do his best to serve the club. He also asks for your participation in the various events and special activities of the coming year.

Jim Hayward VE3MJH -- Director

Although a newcomer to the air, Jim has been an active electronics hobbyist for more than 24 years.

Homebrewing and kit building have always been his favourite activities, particularly hi-fi audio, test equipment and radio. Last February, encouraged by his best friend, Harold Miles AD5L--formerly VE3CXL of Sarnia, Jim successfully prepared himself to obtain his VE3MJH call on April 16th. He has since set up a modern HF station, constructed a modified GEM Quad and is now preparing for the April 1981 Advanced Exams. Other Amateur Radio related interests include restoring vintage radio equipment and collecting antique tubes and associated literature.

Jim is the Assistant Director of Technical Methods for the Computer Communications Group of Bell Canada and lives with his wife, Maria, and four young children in Blackburn Hamlet.

George Schuthe VE3DMC -- Director

George was first licensed in April 1932 with the call sign VE5GS (later VE7GS) in Vancouver. He found he couldn't resist the urge to go to sea and so became a commercial Radio Operator in 1936. He was at sea both on the day World War II broke out and on VE day. He became familiar with the Atlantic while serving in merchant ships and naval

escorts. His principal career was with the Public Service.

Since retirement, he has been retained to represent Montreal shipping Company Limited in the Capital region. He is a member of ARRL/CRRL, CARF, SOWP, RNARS and QCWA (past president of the National Capital Chapter, 1976-77). His favourite band is 14 MHz CW. He is an enthusiastic although not avid DXer with about 290 countries DXCC.

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--- More next month - Ed. ---

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LETTERS TO THE EDITOR

Fred Noble VE3BAJ  
839 Wingate Drive  
OTTAWA K1G 1S2

Dear Fellow Members:

Thank you for the loan of the two metre transceiver while I was in hospital and recuperating at home. This opened up a world of activity to me that I found most interesting.

I wish to thank Paul VE3ICV in particular for his great generosity in bringing the set to the Civic Hospital and later picking it up from my home so remote from his.

Although I may not be able to return the favour, I am pleased to let you know how much I appreciate the efforts of Paul and the Club.

73, Fred VE3BAJ

Harrie Jones  
17 Riverbend Drive  
Ottawa K0G 1J0

Dear Fellow Members:

I would like to express my thanks to the following for their help in "Operation Santa" at the Children's Hospital on December 17th, 1980:



-----  
 OTTAWA AMATEUR RADIO CLUB, INC. MEMBERSHIP 1981  
 P.O. Box 8873 Ottawa, Ontario APPLICATION \$5.00  
 K1G 3J2 Family \$7.00  
 IF PAID BY CHEQUE, MAKE PAYABLE TO: OTTAWA AMATEUR RADIO CLUB INC.

-----  
 SURNAME GIVEN NAMES (or Nickname) CALL  
 -----

ADDITIONAL NAMES (if Family Membership)

-----  
 ADDRESS (Street, City, Province) POSTAL CODE  
 -----

TELEPHONE, HOME: WORK: CLASS OF CERTIFICATE ( ) AMATEUR ( ) ADVANCED  
 ( ) ASSOCIATE MEMBER

ACTIVITIES (Please check appropriate items) BANDS:

- SSB ( ) \_\_\_\_\_
- AM ( ) \_\_\_\_\_
- VHF/FM ( ) \_\_\_\_\_
- CW ( ) \_\_\_\_\_
- RTTY ( ) \_\_\_\_\_
- SSTV ( ) \_\_\_\_\_
- VHF ( ) \_\_\_\_\_

PLEASE CHECK THE APPROPRIATE ITEMS:

I AM A	MEMBER	APPOINTEE	OFFICIAL
ARRL	( )	( )	( )
RSO	( )	( )	( )
CARF	( )	( )	( )
RAQI	( )	( )	( )
QCWA	( )	( )	( )

I have a gas/diesel generator: yes( ) no( ). I have a 2 m hand held ( )

My main interest in Amateur Radio is ( ) HF ( ) VHF Other \_\_\_\_\_

I Would like to see the Ottawa Amateur Radio Club do the following in 1981:

-----  
 (Applicant to complete at same time as above, except signature)

OTTAWA AMATEUR RADIO CLUB, INC. MEMBERSHIP -- 1981

Received From.....AMOUNT OF \$.....

.....dollars.

.....(Membership Chairman) Date.....

THE OTTAWA AMATEUR RADIO CLUB, Inc.

P.O. Box 8873

OTTAWA, Ontario, Canada

K1G 3J2



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: THE OTTAWA AMATEUR RADIO CLUB INC. BOX 8873, OTTAWA, Ont. Canada K1G 3J2:			
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:	VE3JKZ	Ontario K1H 7H7	993-2931 :
: V/President	Bill Nottingham	17 Cedarbank Avenue, NEPEAN	828-8282 :
:	VE3ARZ	Ontario K2H 7Y1	:
: Secretary	Ray Charbonneau	3007 Rankin Street, OTTAWA	731-4981 :
:	VE3JRX	Ontario K1V 8L2	993-2482 :
: Treasurer	Lloyd Reed	696 Sherbourne Road, OTTAWA	722-5431 :
:	VE3AYE	Ontario K2A 3H5	:
: Directors	Joe Courtemanche	23 Lyon Street, Gatineau	568-6642 :
:	VE2DZT	Quebec J8T 1L6	829-9100 (ext 330) :
:	George Schuthe	235 Daniel Avenue, OTTAWA	728-8828 :
:	VE3DMC	Ontario K1Y 0C7	:
:	Jim Hayward	40 Burnview Crescent, OTTAWA	824-8703 :
:	VE3MJH	Ontario K1B 3J3	239-4263 :
: P/President	Paul Coverdale	16 Longwood Avenue, NEPEAN	820-6643 :
:	VE3ICV	Ontario K2H 6G2	592-3020 :
: Repeater	George Roach	104 Strathcona Ave., OTTAWA	234-0885 :
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: Custodian &	Gerry Martin	1771 Hutton Avenue, OTTAWA	731-3220 :
: Archivist	VE3CNJ	Ontario, K1G 1M1	:
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: Chairman	VE3HJI	Ontario K1V 8L2	993-9740 :