

DECEMBER 1995



**DECEMBER MEETING:**

December 13, KEEFER ROOM  
RMOC HQ (111 Lisgar St.)

# GROUNDWAVE



Club Call VE3RC

Repeater VE2CRA

VE3RC

## Official Bulletin of the Ottawa Amateur Radio Club, Inc.

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

President	Richard Hagemeyer, VE3UNW	225-3275	953-0638
Vice-President	John Connor, VE3TG		
Secretary	Larry Woran, VE3WLN		
Treasurer	George Roach, VE3BNO	234-0885	738-2372
Past-President	Roger Swickis, VE3BZR	234-9836	228-6310
Directors	Peter Hafichuck, VE3LBW		
	Bob Paterson, VE3IDG	825-7070	941-0533
Packet Group Chair	Bob Paterson, VE3IDG	825-7070	941-0533
Repeater Chair	Harrie Jones, VE3HYS	739-9365	738-2372
Net Manager	Wayne Greenough, VE3JSQ	836-5320	724-5464
EMI Committee Chair	Ralph Cameron, VE3BBM	825-1634	225-2850
Membership Chair	Chris John, VE3FID		
Nat. Cap. Award Manager	Brian Summers, VE3JKZ	523-1535	738-6263
Publicity	Mike Pilon, VE3BUP	731-1567	
Groundwave Editor	Ed Sieb, VA3ES	738-8924	
Graphic Designer	Maria Townson, VE3KIP	828-9573	
Production Committee	Paul Campbell, VE3CEP	733-0148	
	Ted May, VE3ADZ	741-0862	
Delegated Examiners	Richard Hagemeyer, VE3UNW	225-3275	953-0638
	Mike Kelly, VE3FFK		788-2600
Coffee Guy			

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 second Wednesday of each month (except July and August) in the Champlain Room (2nd floor of the Old Teacher's College) of the RMOH 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
VE3DX	Packet	145.11(SX)

For further information, please contact repeater chairman.

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MINUTES OF THE GENERAL MEETING OF THE  
OARC NOVEMBER 8, 1995

The meeting was called to order by the President, Richard VE3UNW at approximately 19:45. Richard welcomed one visitor to the meeting, Bob, and invited him to sign the club's guest register.

Richard VE3UNW presented this year's Joe Norton Award winner, Dean Morin, VA3DNX, with a wall plaque recognizing his achievement. Richard announced that after 26 years of service to the local amateur community Ed Morgan, VE3GX, was quitting the swap net which was conducted on the Pot-Hole Net on Sunday's and the Capital City net on Mondays. A motion was made by Dave Parkes VE3AV and seconded by Peter Hafichuck VE3LBW to unanimously recognize his dedication and thank him on behalf of the club. A letter will be sent to Ed thanking him for all his year's of dedicated service. The swap net will continue under the direction of Dan, VE3GUU. Ed will continue with the Sunday morning Pot-Lid net.

Dave Parkes, VE3AV, reminded the members that the St. Lawrence Repeater Council

meeting was to be held on Sunday, November 19th at 1:30 pm and invited everyone to attend. Dave also announced that Harrie Jones VE 3HYS and his wife Tammy VE3XTJ had their second child, a baby boy, James Nicholas Crosley Jones, on November 1st. Dave also noted that the OARC was one of the oldest amateur radio clubs in Canada, had the first 2 meter repeater, VE3CRA and that to continue with being in the forefront we should consider installing a SHF beacon. It was noted that the club operates a 10 meter beacon VE3TEN however he would like to see them on 6m, 2m, 440, 902 and 1296, with the immediate priority on 902. Dave asked that members consider this and any interested volunteers should see him.

Richard introduced the speaker, Bill Westbrook, VE3EKA to speak on amateur television. Bill announced that the Seniors Video Repeater Committee of P.A.R.C. with the financial assistance of a grant from the New Horizons program administered by Health & Welfare, they were able to install a video repeater at CJOH. The repeater has a thirty mile coverage and has been used to televise public events such as the MS Bike-A-Thon. Bill demonstrated the clarity of direct ATV with a video of a contact between his home in Orleans and Dick Morrison, VE2RAM in Chelsea. Bill also showed video of ATV being used at the Rose Bowl parade in Pasadena, California involving both fixed and air mobile (helicopter) units. Bill discussed both AM and FM modes and the advantages of FM in that it has better linearity, improved signal to noise ratio and is immune to fading. Bill noted the many uses of ATV such as public service events, emergencies, telecast amateur club meetings, weather balloons and video bulletin boards. Bill invited anyone interested in the project to contact him directly or through his internet address, billwest@hookup.net. Bill also announced that there is a ATV net on VE3TEL on Wednesday nights and that PARC has their own home page and would be publishing their newsletter on the internet. Richard thanked Bill for his informative presentation of ATV and the ATV repeater.

Chris John, VE3FID, announced that he was selling a Kenwood 10 amp. power supply for a friend and was open to offers. Richard noted that the Groundwave did not meet the deadline for mailing and therefore was being handed out at the meeting with the remainder being mailed. Richard also encouraged all members to join RAC.

Richard closed the meeting at approximately 21:15 which was followed by a ragchew and coffee.

### mk's WORDS

Nov 7/95

Rather than the usual stuff, I decided that this month, since the indoor radio season is starting, I'd put together a list of **CANADIAN** sources for ham radio related stuff. It isn't complete, some of the 416 area codes are likely 905s by now, and some of the web addresses look fishy, but here goes:

Abra Electronics  
5787 Pare'  
Montreal H4P 1S1  
800 361 5237  
parts

Active Electronics  
1023 Merivale Rd.  
Ottawa K1Z 6A6  
613 728 7900, 728 3586FAX  
parts

Active Surplus Annex  
247 Queen St. West Toronto  
parts...

ADD  
233 Armstrong  
Ottawa K1Y 2W5  
613 729 2331  
parts

Addison  
8018 20e Av.  
Montreal Qc. H1Z 3S7  
parts

Alfa & Central Western,  
Edmonton A1  
403 466 5779  
Yaesu dealer, maybe others

Atlantic Ham Radio  
368 Wilson Av  
Downsview On  
M3H 1S9  
416 636 3636  
631 0747FAX  
ahr@interlog.com  
radios and accessories

BGE Montreal  
514 327 3578...  
parts

BML Communications (div.Bytown Marine)  
5 Corvus Ct.  
Nepean On K2E 7Z4  
613 723 8424  
723 0212FAX  
radios and accessories

Burnaby Radio Communications Ltd.  
4257 Hastings St.  
Burnaby BC V5C 2J5  
604 298 5444  
298 5455FAX  
pac-comm, maybe other stuff

Classic Radio  
510 Eldorado Rd.  
Kelowna BC  
V1W 1G9  
604 764 0173  
tubes

Cohen & Cohen  
Merrivale Rd.  
Nepean  
metal & surplus

Com West Radio Systems  
Vancouver BC  
604 321 1833  
radios and accessories

Durham Radio  
350 Wentworth St. E.  
Oshawa On L1H 7R7  
905 436 2100  
436 3231FAX  
<http://durhamnet.com>  
radios and accessories

Electro Sonic....  
locally, 1335 Carling Ave.  
Ottawa K1Z 8N1 (no local stock)  
613 728 8333  
head office/warehouse, 1100 Gordon Baker  
Rd.  
Willowdale On  
M2H 3B3 800 56SONIC  
parts

Elkel  
2435 Boulevard des Recollets  
Trois Rivieres Qc G8Z 4G1  
819 378 5457  
378 0269FAX  
[WWW.ELKEL.NOMAD.QC.CA](http://WWW.ELKEL.NOMAD.QC.CA)  
radios and accessories

Gem Quad  
P.O. Box 291  
Boissevain Mb R0K 0E0  
204 534 6184 PHONE & FAX  
antennas

Gervais Electronics  
1-716 Industrial Av  
613 738 3101  
parts

H.C. McFarlane Electronics  
R.R. #2 Battersea On K0H 1H0  
613 353 2800  
353 1294FAX  
towers and accessories

IES Communications  
500 12 St. West  
Cornwall On K6J 3E4  
613 930 2165  
930 4838 FAX  
towers and accessories, Midland, Paccom  
and Texpro dealer

Kenwood Electronics Canada Inc  
6070 Kestrel Rd  
Mississauga On L5T 1S8  
905 670 7211  
670 7248FAX  
radios and accessories

Larsen  
800 663 6734(Canada)  
604 299 4191FAX  
antennas

Lesmith Crystals  
54 Shepherd Road  
Oakville On L6K 2G5  
905 844 4505  
844 2274FAX  
crystals

Maple Leaf Communications  
RR #1 Everett On L0M 1J0  
705 435 0689  
antennas and accessories

MacKinlay Antennas....  
115 Albert St.  
Lucan On  
NOM 2J0 519 227 4995, 227 0082FAX  
[Tim@ardsley.business.uwo.ca](mailto:Tim@ardsley.business.uwo.ca)  
<http://hamster.business.uwo.ca/tmackin/>  
Heavy duty VHF/UHF yagis

Nat Palmer Ltd.  
3191 Albion S. at Johnston  
Ottawa  
613 521 5971  
metal

Norham Radio  
4373 Steeles AV W.  
North York ON M3N 1V7  
416 667 1000  
667 9995FAX  
radios and accessories

Norm Brown's Air Radio Service  
73 Colonial Ct.  
Sudbury On P3A 4X3  
705 560 1499  
radios and accessories incl. SGC

Nor-Rad Communications  
98 Hadrian Dr.  
Etobicoke On M9W 1V4  
416 743 0239 VOICE/FAX  
towers and accessories

Ottawa Fastener Supply Ltd.  
34 Stafford Rd.  
Bells Corners  
613 828 4117, 829 7225FAX  
Stainless Steel Hardware

Princess Auto  
2267 Gladwin Cr  
Ottawa On  
K1B 4K9 613 247, 1651 247 1657FAX  
parts, surplus

Radio Progressive  
8104 Transcanadienne  
Ville St-Laurent Qc H4S 1M5  
514 336 2423  
336 5929FAX  
800 531 7388 ORDERS ONLY  
radios and accessories

Ratelle Communications  
54 Shepherd Rd.  
Oakville On  
L6K 2G5 416 844 4505, 844 2274FAX  
Batteries, Antennas, parts & accessories

R&S Electronics Ltd  
306 Prince Albert Rd.  
Dartmouth NS  
B2Y 1N2  
902 464 0464  
radios and accessories incl. Ten Tec

Resonant Tech. Inc  
Beamsville On  
905 563 4370  
yaesu dealer, maybe others

RP Electronics  
2113 West 4th Av  
Vancouver Bc V6K 1N7  
604 738 6722, 738 3002FAX  
parts

Seaway Communications  
3481 Rosedale Av.  
Cornwall On K6K 1V5  
613 938 3896  
938 9723 FAX  
radios and accessories

Sinclabs  
85 Mary St.  
Aurora Ont L4G 6X5  
905 841 0624  
841 2315FAX  
antennas and accessories

Skyware Communication Technology  
1942 Como Lake Av, 64590  
Coquitlam BC V3J 7V7  
604 944 1790 PHONE&FAX  
antennas and accessories

Spectrum Amateur Sales  
302 Keswick Ridge Rd,  
Mouth of Keswick NB E0H 1N0  
506 363 3627  
458 9741 FAX  
Pac-Com dealer, maybe other lines

Texpro Sales Canada  
2280 Industrial St.  
Burlington On L7P 1A1  
antennas and accessories

Toronto Surplus & Scientific  
608 Gordon Baker Rd.  
Willowdale On  
M2H 3B4 416 490 8865, 785 7955FAX  
Parts, Test eqpt.

Total Battery Sales  
12 B Sutherland  
Nepean On  
613 831 1499  
Batteries of all types

VE2ZP QSLs  
15 Oval Aylmer Qc  
819 684 1432  
QSL cards

VE3HHW  
try callbook address  
QSL cards

VE3LNX's Surplus Ham Gear  
 Victor M. Doty  
 5222 Ochonski Rd.  
 Orono On LOB 1M0 905 983 5831  
 used eqpt., antennas etc.

Wackid Radio  
 312 Parkdale  
 Ottawa On  
 613 728 1821  
 parts

W.J Ford Surplus Enterprises  
 21 Market St N.(warehouse)  
 P.O. Box606 Smiths Falls On K7A 4T6  
 613 283 5195  
 283 0637Fax  
 testequi@magi.com  
<http://infowev.magi.com/~testequi/>  
 surplus parts & eqpt.

Feel free to add more to this list,  
 preferably via the Groundwave.

73 & hope santa is good to you all  
 ..mk ve3ffk

### BOAT-ANCHOR ENTHUSIASTS 80M NET TO START IN 1996

Does the thought of black crinkle-painted cabinets and "fire-bottles" give you a warm, fuzzy feeling? Do you swoon at the idea of "heavy iron" and plate modulation? Do your ears perk up on hearing the names Collins, National, Hammarlund and Hallicrafters? If so, here's good news: a local Ottawa area group of amateurs are organizing a new 80 metre net devoted to the discussion of "Boat-anchors", classic and vintage amateur gear and amplitude modulation. The net is being organized by local area members of AMI, (Amplitude Modulation International). AMI is devoted to the promotion of AM operation and the preservation and operation of classic and vintage amateur equipment. The net times and frequency have not yet been determined as the idea is still in the planning stage. If you'd like to get involved and would like more info, please call Ed Sieb, VA3ES at (613)-738-8924.

### GROUNDWAVE SWAP SHOP

I have received several requests from members for space in our monthly bulletin to post items for sale and wanted. So, here it is! This space is available free to members to post their "ads". If you'd like to post a sale or want item, you can reach me, Ed, VA3ES, at the club meetings, or you can call it in: Telephone: 738-8924, packet: VA3ES@VE3KYT.#EON.ON.CA.NA.

### WANTED

Heathkit Amateur Radio items and older Heath catalogs (U.S. and Canadian), and manuals. Also looking for older Radio Shack catalogs, Lafayette and Allied catalogs. Contact: Carl Morin, VA3CGM, at 523-8792.

### KIT BUILDING PARTY!

Jacques Choquette VE3TSC, and the usual Hambone gang have planned a kit building party for sometime in January, (date not yet decided). This time the project will be a VHF SWR meter with LED bargraph display for forward/reflected power. Cost is 25 dollars, (estimated). For info, contact Jacques VE3TSC, at 748-6597 evenings.

### WINNER OF THE JOE NORTON AWARD

This past October, club member Dean Morin, VA3DNX was awarded the **Joe Norton Award** for the winning submission in the essay contest. Richard VE3UNW presented Dean with a wall plaque recognizing his achievement, as well as a cheque for over \$600. What a wonderful beginning to a great hobby! We understand that part of

the money will go towards a nice new mobile/base 2-meter radio.

Congratulations Dean! Here is Dean's winning essay.

**A Young Ham Riding the Airwaves**  
by: Dean Morin, VA3DNX

It all started on a cold evening back in March 1994. I received a telephone call from my dad who was taking a small engine repair course, telling me when he was coming home. I heard the telephone ring, picked it up and heard my dad, but this call sounded different with a funny beep every time he would stop talking. He said something about using a hand held radio that an amateur in his class was demonstrating to him. I could not figure this out, so I asked him to explain it to me when he got home. What I didn't realize when I hung up the telephone was that this "strange phone call" had just introduced me to a hobby that I never knew existed.

Later that night, my dad explained to me the phone patch and repeater concepts. I was completely amazed with all of this and I wanted to own and use a hand held radio. However, my father told me that you had to study and pass an examination to receive a "Certificate of Proficiency" in order to obtain a radio license that would give you the privilege of talking on the radio. He also told me that if I qualified in "Morse code," I could obtain the privilege of talking to people around the world. At that point, I knew I was hooked on becoming a ham and I wanted to ride the airwaves.

It didn't take too long for me to find out about the OARC radio course being offered at Carleton University in May, 1994. I signed up for it along with my father and I hoped for the best. I can still remember the first night I attended the course. There were many adults and only a couple of kids. I thought the course material might be too difficult for a 13 year old but I desperately wanted my ticket to ride the airwaves and so I was ready to study hard and

stick it out to the end. The course was held during the summer and I learned about radio regulations, basic electricity, antennas, transmitters and receivers. I studied hard for the final exam held in August 1994. I sweat it out and managed to pass it on my first attempt. I felt very proud at the age of 13 to have a basic "Certificate of Proficiency" in radio and to be one of the youngest hams in the Ottawa area.

Certificate in hand, I rushed to Industry Canada and received the call letters VA3DNX. I quickly joined two radio clubs: the OARC and the OVMRC. At the OARC, I was asked at the first meeting to look after the coffee and donuts at the monthly meetings. I gladly accepted my new role along with my friend Mike. There was nothing better appreciated than hearing the members thanking us for the good donuts or coffee that we had prepared.

I participated also in field day in June 1995. I talked to stations all over the continent. There were contacts to Alabama, Florida, New York and even the Yukon, to name a few. Two other ham friends of mine were up late that night so I figured I would stay up to about 1:00 A.M., but then it was 2:00 A.M., and then 4 O'clock. I was having so much fun that I just couldn't get the transmitter microphone out of my hands. I decided for the first time in my life to stay up for 24 hours straight. It was worth the multiple mosquito bites and red eyes filled with drowsiness. I must say that I had enjoyed myself so much that I can't wait until field day of 1996 so I can ride the airwaves again.

In August 1995, I was invited to be one of the net controllers for the YAC net, a net for young amateurs and those who are young at heart. I really enjoyed being net controller and have continued to volunteer in that role.

Currently, I am studying for my advanced radio theory exam and I hope to write it this fall and become one of the youngest to have it in the Ottawa-Carleton area.

I have also started to learn "Morse Code" and hope to have my 5 w.p.m. by next spring.

Since I have become a radio amateur, some of my friends have shown great interest in radio and two of them plan to get into the hobby with my help. With two or more young amateurs licensed, we then would like to start up a radio club at our high school. We could render a valuable service to our school by communicating forthcoming events and providing the communications at school occasions.

All in all, I am very happy to be involved in the radio hobby. I find the hobby fascinating, intriguing and most of all, enjoyable. To think that I have had all this fun in just one year. It is certainly great to know that I have many more years of fun ahead of me. With this in mind, I'm off to ride the airwaves again. Bye and 73!

Dean Morin, VA3DNX

**RAC NEWS BULLETIN 22-95**  
**25 November 1995**

Issued at RAC Administrative Office  
614 Norris Court, Unit 6,  
Kingston, ON K7P 2R9  
Editor: Jacques d'Avignon VE3VIA

**SURVIVAL**

In the September issue of this bulletin, I was reporting on the state of RAC as an organization that looks after the good of all amateur operators in Canada.

Well RAC is not alone in the precarious situation of having only a very small percentage of the operators as members. 18% only is not a very large slice of the pie! While perusing the English sections of the August 1995 issue of the South African magazine "Radio ZS", it would appear that there is a similar situation developing in that country.

"So You Think That You Cannot Afford To Belong To The League Any Longer?" is the title of the article. It relates the present situation in that country regarding the fact that not enough amateurs belong to the League and it is important to realize that the League is the "guardian" of the amateurs' rights in South Africa.

The article discusses the review being done of the spectrum use and the release last July of the "Green Paper for Telecommunications Policy." This paper looks critically at the need for South Africa to look at the distribution of available frequencies. This rings a bell! An interesting parallel here is that the next step is a "White Paper" and then legislation for formal implementation, a new "Telecommunication Act"? "Do you want to have a voice in the drafting of this new legislation? Then support the League!"

The article is most critical of the operators who do not feel they should belong to the League but have the enjoyment of all the same "goodies" as the operators that belong to the League, and paints a not very rosy picture of what could happen if the League does not have the funds and/or the mandate to speak for all the amateur operators in the country. I had to look very carefully and often at the cover page of the magazine to make sure that it was not TCA or the RAC Monthly Bulletin.

From what I am seeing in the amateur literature in the last few months, there is a major problem brewing for the amateur radio operators about the "free" use that they now have of some parts of the radio spectrum. It is important that all the amateurs, around the world, support their national associations, leagues, etc. If this is not done, there is a real danger that what we know now as the "Amateur Use" of certain slices of the HF spectrum, will become an "Antique" to be talked about while you are moving the pieces on a chessboard. Support Radio Amateurs of Canada, pay your dues promptly (and often!) and "entice,

coerce, drag, blackmail..." new members to join Radio Amateurs of Canada.

## SURVIVAL 2

In the last few months I have attended two Canadian and one American ham flea markets, and one fact did surprise me and also worried me: there were no young faces anywhere at these events.

At these gatherings, most of the buyers and sellers were older, equipment that was being sold and bought was eclectic and the conversations were, typically, reminiscences of "good" old days. But no young faces were to be seen, no young faces were looking over anyone's shoulder, no young voices were heard asking questions.

If the young crowd does not become interested in amateur radio, the hobby will disappear in the very near future and the frequency bands now "on loan" to the amateurs will have shrunk to minuscule flecks on the radio spectrum chart.

I do not have an answer, I do not think that one answer will suffice to reverse this trend. It would not be fair to say that the ham community was the only one that needs to look around and come up with some ideas. Over the years the equipment manufacturers have made it very easy to purchase equipment and get on the air with no problems. Gone are the days where a youngster could learn to build a new piece of equipment while learning what electronics and communications were all about.

In many publications, you still find some construction ideas but often they are very specialized and quite elaborate, often not projects to be undertaken by a youngster as a starter project.

What is being done to interest the coming generation to the hobby? Will we need to somehow combine amateur radio with computer technologies? What will the clubs do to attract that particular stratum of our population? We need

answers and we need those answers SOON, before the hobby is dead and there are no bands left to operate on, the frequencies "on loan" to the hobby having been "loaned" to other services.

## ELECTION RESULTS

The RAC Election Committee made up of Bernard Burdsall VE3NB, Jacques d'Avignon VE3VIA and Jim Dean VE3IQ, met on Friday, Nov. 17th 1995 to determine the results of the election for Regional Directors.

For Alberta / NWT:

Ken Oelke VE6AFO, from Calgary, the current Board member, 304 votes Alan Faint VE6TZY also from Calgary, 127 votes. 44% of all eligible ballots were returned.

In Ontario South:

J. Fergus Kyle VE3LVO, current member of the Board from Burlington Ontario, 521 votes. Geoffrey Smith VA3GS from Aurora, 381 votes. 59% of all eligible ballots were returned.

In the Quebec Region:

Pierre Roger VE2TQS, current member of the Board from Montreal, 137 votes Dave Goodwin VE2ZP from Aylmer Quebec, 76 votes. 59% of all eligible ballots were returned.

## AMATEUR LICENCE FEES GOING UP?

Rumours persist that the federal government plans to increase the price of an Amateur Radio license in the near future. Industry Canada will neither confirm nor deny the rumours.

Jim Dean, RAC's Vice President for Government Affairs, recently said the following in response to a question from one Canadian amateur:

"In 1989, the Radio Communications Act replaced the former Radio Act. As a result, it is necessary for IC to bring the Radio Regulations into alignment with

the new act. This process was begun a number of years ago, and has been the subject of consultation with spectrum users. One of the things that could be affected by this realignment is the fee structure, and this would be true for all spectrum users, not just amateurs. Services provided by the Government affect the fee structure. IC has been working on the realignment of the regulations and they have just about finished. Before the changes are finalized IC will have to publish them in the Canada Gazette and seek comment.

"To be realistic, I think we are in for a fee increase. IC is well aware of what amateurs in other countries are paying for their annual licence fees. The costs of all Government services are going up, and Spectrum Management is no exception. Indeed, there is tremendous pressure on spectrum management due to new PCS licences, DTH television by satellite, cellular and mobile telephones, etc." Stay tuned. As soon as there is any news, we will let you know.

#### DECEMBER 1995 ISSUE OF TCA

The issue of The Canadian Amateur features a Christmas cover and details inside of the Santa Claus Network. There are complete 1995 Canadian Field Day results, rules and an entry form for the RAC Winter Contest and a holiday contest calendar.

The Christmas issue of TCA also includes a review of the Ten-Tec 6m transverter, details of the 1995 Young Amateur of the Year, sponsored by the York Region ARC, and further coverage of the September IARU Region 2 Conference in Niagara Falls.

All this plus ads chock-full of Christmas goodies from your favourite suppliers, Feedback letters, Silent Keys, an update on regulatory matters, regular columns, DX reports, HF propagation forecasts, EMC/RFI tips in the Crosswaves column, packet radio, club news, YL News, QUA, ARES, Public Service, Section News, This month in History, bench and homebrewing

tips, antenna design, shortwave listening, a Coming Events calendar for the new year, and the Swap Shop - all in the December issue of The Canadian Amateur, coming soon to your mailbox.

#### WHERE IS THE HIGHEST REPEATER?

In September, we reported that VE6HWY (9744 feet) was the highest repeater in Canada, and now we have been advised that this is not completely correct. We have received a message stating that VE7KNP (9748 feet) IS now the highest by 4, yes 4 feet! I refuse to take sides, specially when two provinces are involved in this "dispute". Please, will the highest repeater stand up?

#### HEADQUARTERS ADDRESS

While reviewing some of the Clubs bulletins and correspondence received in Kingston on a regular basis, it was noted that still in many cases the postal address is incorrect. This may cause some problems, as the Post Office could return the incorrectly addressed mail. Please check your mailing lists and amend if necessary to:

Radio Amateurs of Canada  
614 Norris Court, Unit 6  
Kingston, ON K7P 2R9

Some Clubs still have on hand some membership applications that carry the incorrect address. Please check your supply and correct the address if necessary.

#### REQUEST FOR NEWS ITEMS

If any club is interested in having some items on national significance published in the Monthly Bulletin, please send to me before the 5th of the month. As I am a very poor 4-finger typist, send me long articles on diskette if possible, that will make my life much easier! Acceptable format: WP 6.1/Windows, ASCII or anything that will translate easily to WP6.1/Windows. I am also looking for graphics in any format: GIF, DRW, PCX, etc that depicts some radio equipment or

related activities. If you have a source, please let me know where I can find these graphics.

#### Editors

Jacques d'Avignon, VE3VIA  
c/o Radio Amateurs of Canada  
614 Norris Court, Unit 6  
Kingston, ON K7P 2R9  
E-mail: monitor@limestone.kosone.com

Packet Editor: Steve Cutway,  
VE3GRS@VE3CDY  
Internet Editor: Steve Cutway,  
cutways@qucdn.queensu.ca  
Home page Editor: Ken Pulfer, VE3PU,  
jkpulfer@igs.net

Radio Amateurs of Canada Home Page on  
Internet: <http://WWW.RAC.CA>

Special thanks to Debbie Norman, General Manager RAC, who contributes significantly to the editing and proof-reading of the bulletin. Also acknowledged are those who have forwarded items for the bulletin.

The purpose is to circulate Amateur Radio news and information on a timely basis between issues of The Canadian Amateur magazine.

All material in the Bulletin may be reprinted but please credit the Bulletin, the original author, and the original publication if one is given.

Please submit original stories or information to the editor before the 5th of the month of publication.

Annual subscriptions to RAC News Bulletin are available by mailing \$10 before September 1. Subscription expires every August 31.

The RAC News Bulletin is published monthly except July and August, by:

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614 Norris Court, Unit 6  
Kingston, ON K7P 2R9.

#### CANADIAN SPACE AGENCY NEWS

From: VA2ASC@VE2RKY.#MTL.PQ.CAN.NA  
CANADIAN TECHNOLOGY AT ITS BEST ON BOARD  
ATLANTIS  
Release # 95-11- 14 via VA2ASC

CSA, Johnson Space Center - Houston -- Chris Hadfield, VA300G used several different pieces of Canadian Technology today to assemble successfully the Orbiter Docking System on-board the Shuttle Atlantis. Combining his own manual dexterity with the elegantly simple concept of the Space Vision System (SVS) and the Canadarm, Hadfield mated the Russian-built Docking Module to the shuttle. The World-famous IMAX camera system was also used to monitor and record the event.

The assembly was completed at 2:17 a.m. EST while Atlantis was over Eastern Europe during its 30th orbit in this eight-day mission. Hadfield was assisted by each of his crewmates during the intricate and challenging manoeuvre. Commander Cameron fired the shuttle's thrusters to ram the orbiter into the latches on the docking module.

The SVS provides the Canadarm with its eyes. During Mission STS-74, Major Hadfield will control the Canadarm using guidance information from the SVS. He will also test the accuracy and use of the more sophisticated Advanced Space Vision System (ASVS) to guide the intricate berthing operation. The success of this mission will pave the way for ASVS to assist in the increasing sophisticated tasks of building the International Space Station.

Conceived 20 years ago by Dr. Lloyd Pinckney of the National Research Council of Canada, one of the precursors to the Canadian Space Agency, the SVS enhances astronauts' vision in the difficult viewing conditions of space. Its use provides the exact location, orientation and motion of a specified object. The SVS was first tested three years ago on

flight TS-52 by Dr. Steve MacLean, now Director General of the Astronaut Program.

Mission Specialist Chris Hadfield is the first Canadian to operate the Canadarm in space. He used it to pick-up the Russian-built Docking Module (DM) from the shuttle's payload bay. The Canadarm, manufactured by Spar Aerospace of Toronto, Canada, is a valuable and successful robotic tool contributed by Canada to the U. S. Shuttle program; its first flight was aboard the shuttle Columbia during mission STS-3 in March, 1982.

Mission STS-74 is the second in NASA's series of seven Shuttle-to-Mir space missions working towards the assembly of the International Space Station. Atlantis launched from Kennedy Space Center on Sunday, November 12 and landed November 20 at approximately 12:30 EST.

Contact: Nicole Gignac  
R. G. Hest  
(514) 926-4706  
(713) 480-4616  
Canadian Space Agency  
Canadian Space Agency

Release from RAQI and the Canadian Space Agency by Robert VE2FIR.

**SPACE BULLETIN 024**  
**FROM ARRL HEADQUARTERS, NEWINGTON, CT**  
**NOVEMBER 17, 1995**

To all radio amateurs

ARRL has received dozens of reports from amateurs that have made successful voice contacts with the crew aboard the Space Shuttle Atlantis and the Mir Space Station Complex. The Atlantis astronauts completed 5 scheduled ham radio contacts with US students as part of the Shuttle Amateur Radio EXperiment or SAREX. These groups included students from Franklin Junior High School in Pocatello, Idaho, Norwalk County schools in Connecticut, Lake Street Elementary School in Crown

Point, Indiana, Round Lake-area schools in Illinois, and Quimby Oak Junior High School in San Jose, California. The students were assisted by their local Amateur Radio clubs and many AMSAT SAREX volunteers.

The crew used separate receive and transmit frequencies. The FM voice downlink used was 145.84 MHz. The FM voice uplinks were 144.45 and 144.47 MHz. The astronaut's call signs are KB5AWP, KC5NRI, N5SCW, KC5ACR, and KC5RNJ/VA300G. It should be noted that Canadian Astronaut Chris Hadfield, KC5RNJ, received his Canadian Amateur License early in November; his Canadian callsign is VA300G. He used this callsign on several passes over North America; particularly when the Shuttle traversed over Canada. The SAREX Astronauts have been very active on voice this mission. The SAREX team has received numerous reports of hams making voice contact with the STS-74 crew on this joint Shuttle/MIR mission. There was no hardware to support packet radio contacts from the shuttle during this flight.

QSL cards and reports may be sent to ARRL EAD, STS-74 QSL, 225 Main Street, Newington, CT 06111-1494, USA. Include the following information in your QSL or report: STS-74, date, time in UTC, frequency and mode (FM voice). In addition, you must also include a SASE using a large, business-sized envelope (10) if you wish to receive a card. The Greater Norwalk Amateur Radio Club in Norwalk, CT has generously volunteered to manage the cards for this mission.

CONTEST CALENDAR 12-95HF

DEC 31 0000z-2359z RAC CANADA WINTER  
 CONTEST 95 160-2m Phn+CW  
 DEC 31-1 7PM est ARRL STRAIGHT KEY  
 NIGHT #### 80,40,20m CW

1996

FEB 10-11 1200z-1200z DUTCH PACC CONTEST  
 160-10m (160m CW) Phn+CW

VHF

DEC 31 0000z-2359z RAC CANADA WINTER  
 CONTEST(W-W)160-2m Phn+CW

1996

JAN\*20-22\*1900z-0400z\*ARRL JANUARY VHF  
 SWEEPSTAKES 50MHz & up.

SEND ME CONTEST INFO, CALENDAR SENT EACH  
 MONTH, 73 DE PIERRE, VE2PIJ  
 VE2PIJ@VE2CSC.#MTL.PQ.CAN.NA  
 ve2pij@ve2max.ampr.org

HAMS HELP IN HURRICANE

Once again, Amateur Radio provided early communication out of a disaster area, in this case the US Virgin Islands, following Hurricane Marilyn.

By September 15, 1995, telephone circuits on the island had become overloaded, even before the hurricane had arrived. As Marilyn passed over the capital of St. Thomas early on 16th, a vital telephone microwave link already had failed.

On the morning of the 16th, Lee Reisenweber, VP2VE/NP3CG, operating from KP2A, sent a vital damage assessment message from the St. Thomas Emergency Operations Center to UN Amateur Radio Readiness Group Net Control Ray Crites, K1WW, in Greenville, North Carolina, on 20 metres.

The traffic was relayed to 4U1UN, the UN Headquarters Amateur Radio Station in New York City, from which it was given

directly to the Federal Emergency Management Administration. This was some of the first word received by FEMA from the US Virgin Islands describing what had occurred on St. Thomas.

At the time, Reisenweber was using generator power and a "rapidly installed" 40-foot piece of wire for an antenna. In addition to traffic later passed by voice, digital modes were used extensively, with message files sent by FACTOR.

ARRL Special Bulletin ARLX057  
 de The Canadian Amateur

KEN PULFER FEATURED AS COMPUTER PIONEER

RAC Secretary-Treasurer Ken Pulfer, VE3PU, recently retired as VP Finance at Ottawa's National Research Council, was highlighted in the May 1995 commemorative issue of Computing Canada.

Ken spent most of his life as a researcher and later as an administrator at the NRC, after graduating from the University of Manitoba in 1954.

Beginning in the early-to-mid '60s, Ken and his colleagues were experimenting with computers, graphical user interfaces (GUIs), and even virtual reality, all of which are now state-of-the-art on most computers. They even developed what was probably the first computer mouse in Canada.

Ken was in on the early beginnings of the Internet back when it was the sole domain of researchers and academics.

Even in retirement, Ken has not stopped. He composes and records his own music at home using a synthesizer keyboard and computer.

And right up-to-date with technology, Ken's latest creation is the RAC Home Page. Check it out at <http://www.rac.ca/>

de The Canadian Amateur