

The Hamilton Amateur Radio Club  
 PO Box 91215, Effort Square PO  
 Hamilton, ON L8N 4G4  
 Est. 1932 Inc. 1956  
<http://www.hamiltonarc.ca/>

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## Next Meeting

Meeting room opens at 7:00 p.m.  
 Meetings begin at 7:30 p.m.

### Wednesday January 16th

Our guest speaker for the evening will be Ron Ouwehand, VA3OUW, with an illustrated presentation about his 3-month adventure, this summer, sailing single-handed on Lake

# The Hamilton Amateur

The Hamilton Amateur Radio Club Newsletter – 75 Years of Amateur Radio 1932-2007

Superior aboard the yacht Old Hand. During his time away, Ron depended on amateur radio and solar power to maintain contact with civilization while traveling in an area where you can go days without seeing another person. I hope you will join us for what promises to be an informative and interesting presentation.

## Minutes of the November 21st General Meeting

by Secretary, Roger  
 Pimm VE3UFZ

The meeting opened with a presentation by Lorraine thanking Roger VE3UFZ and Mardy VE3QEE for volunteering their vehicles to transport members to the Acton Industry Canada Spectrum Management site.



Our guest speaker this month was Bill Bauwhuis VE3YR, Trunking Manager for the City of Hamilton. Bill originally started his career with the Ministry of Transport which has gone through a number of re-creations to the current name Industry Canada.

As Trunking Manager for Hamilton, Bill's responsibility covers all of the police, fire, licensing (bylaw enforcement) and public works radios, both mobile and portable. Bill illustrated his talk with a Power Point

presentation which included photographs and diagrams of the trunking system.

There are over 2000 stations in total. Ambulance services have their own system which is maintained independently. Bill maintains 25 portable radios for emergency services. In spite of all the radios being controlled, there are only 50 channels in use. These channels are shared on a demand basis through computer control. Each radio has its own unique identifier and when a channel is required, one of the 50 channels is assigned randomly, and is then released when the call is completed. Each radio is also challenged every time it is used to ensure that it is an authentic radio, not a lost stolen or intentionally disabled one. The system is unique since it can remotely shut down a radio from the control centre. This ensures that only legitimate radios have access to the available channels.

There are 9 antenna sites. Of the 9 sites, 5 are transmitting in simulcast. The remaining antenna sites listen only. The simulcast system is controlled by an extremely accurate rubidium clock. The central computer system polls each listening antenna site and selects the strongest receive signal for retransmission. This guarantees a strong receive signal from almost all of the Hamilton area, both inside buildings and on the street.

Each and every radio on the system can be monitored by the central control system and all operating parameters of each radio

Club meetings – 3rd Wednesday each month – 7:30 pm (except July and August)  
 at Hamilton District Christian High School, 92 Glanaster Road  
 corner of Rymal Road (Hwy. #53) and Glanaster Road.  
 Parking on location. Complimentary refreshments.

transmission can be tracked over time. Failure and fault messages are sent by each radio and captured by the central computer. Talk groups and traffic patterns are monitored and talk groups can be adjusted according to demand. A talk group is a group of radios assigned to personnel by interest group and talk groups cannot hear each other thus reducing "chatter" from non-involved radio groups. Currently there are just over 60 talk groups which were whittled down from over 150.

Each tower site is equipped with microwave, fibre optics and spread spectrum radio. This connectivity system carries both voice and data to the central computer. The fibre optic system operates on industry standard T1 carrier utilizing Ethernet protocol. Redundancy is built into the fibre optic system to ensure that the system will not shut down in the event of cable damage.

Thank you Bill for a very interesting and informative exposé.

#### General Meeting Minutes

Moved by Roger VE3UFZ and seconded by Casey VE3CVP that the minutes of the September 2007 General Meeting, as published in the newsletter, be adopted. Carried.

#### Reports

Secretary: Roger VE3UFZ read aloud a letter of appreciation from the Canadian Warplane Heritage Museum for our \$1000 donation to that organization.

Treasurer: Fred VE3GCP reported that there were no revenues received during the past month. The Christmas Dinner planning is well underway. Don't forget the date, December 12, 2007. This is the second Wednesday in December and the dinner replaces our regular December meeting.

Membership: Emsley VE3JAI reported that we now have a membership of 68, 60 primary members and 8 family members. Eighty three newsletters were sent out in October. This number will be reduced to include

## HARC 2007-2008 Executive

### President

Lorraine MacPherson VA3NZ  
905-389-7653 va3nz@rac.ca

### Past President

Mardy Eedson VE3QEE  
905-648-0187 ve3qee@rac.ca  
meedson@cogeco.ca

### First Vice President

Emsley Mitchell VA3QI / VE3JAI  
905-627-0333

### Second Vice President

John Vandenberg VE3DVV  
905-692-3802  
JVandenberg@mountaincable.net

### Secretary

Roger Pimm VE3UFZ  
905-560-2628  
rpimm@cogeco.ca

### Treasurer

Fred Robinson VE3GCP  
905-575-5197  
FredRobinson@MountainCable.net

### Director

Adam Mitchell, VE3BAU  
ibis101@hotmail.com

only paid up club members for the November issue.

Education: Mardy VE3QEE currently has 3 basic ham students. The course will be finished in the middle of January 2008. There is a small scholarship available to college for university students who have their ham license but there have been no candidates put forward for this award.

Health & Welfare: Mary VE3OGQ reported a silent key, Julius "Jake" Csatory. Mary sent a condolence card to Julius wife and family. A get well card was sent to Gord Barber VE3AAH to encourage his speedy recovery. Members were delighted to

welcome Gord to the meeting tonight.

Contest: Rick VE3BK reported that there is still the chance to order club "Contest Group" T shirts with our 75th Anniversary theme. A reminder about the RAC Winter Contest on December 29th, 2007, and the CQ 160M SSB Contest on February 23/24, 2008.

Flea Market: Mardy has nailed down our 2008 Flea Market date. For those of you with 2008 calendars note in bold letters Saturday October 4, 2008. Once again the Hamfest will be held in the same location, at Marritt Hall.

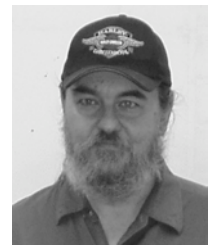
Examinations: One person wrote the basic ham test and obtained his Canadian Basic qualification. This individual has left for missionary work in New Guinea.

Web Site: www.hamiltonarc.ca Our club site now has a call sign search facility. Check it out.

Moved by Mike VA3WXS and seconded by Mardy VE3QEE that the meeting be adjourned at 9:30pm. Carried.

## RF Connector Trivia

by John Hudak  
VE3CXB



As amateur radio operators we regularly come into contact with three or four types of RF connectors, these being the "UHF", the "type N", the "BNC", and the "SMA" connectors. There are, of course, many others but these are the most common that most hams would see. Here's a bit of trivia about these connectors, just in case you were wondering!

The connector we refer to as the "UHF" connector typically consists of the PL-259 plug and the SO-239 socket, which are known by their military designations. These connectors were invented in the

1930's by E. Clark Quackenbush who worked for the Amphenol Corp. (or the American Phenolic Corporation as it was known back then). You may also see them referred to as "Amphenol" connectors. Coaxial cable was first produced in the 1930's and so Quackenbush developed this connector for usage with that new type of feedline. These connectors were extensively used on radio equipment during WW2. The threaded collar on the plug made it particularly useful in the high vibration environments of bombers, fighter aircraft, etc. Quackenbush originally specified the insulating material to be phenolic (not surprising since he worked for Amphenol) but today the better quality connectors from name brand manufacturers are made with Teflon dielectric and silver plating. UHF connectors were never really meant to be used much above 200 or 300 MHz. as they do not present a constant impedance through the connector (in the 1930's 300 MHz. "was" considered UHF!). What this means is that there are impedance "bumps" within the connector which may cause reflections at higher frequencies. Losses of 1 or 2 dB or more have been measured as you get higher in frequency, although these connectors are still commonly used on ham radio equipment operating in the 70cm. band. Also UHF connectors are only rated for 500V, but we know there are plenty of hams out there with linear amplifiers putting a lot more "juice" through these connectors than that. Please note that these connectors are not waterproof, so make sure you seal them up if you're using them outdoors.

The "type N" connector was invented in the 1940's by Paul Neill of Bell Labs, the "N" coming from "Neill". This connector presents a more constant impedance and is useful up to 11 or 12 GHz. depending on the quality of construction. Some amateur radio VHF/UHF rigs, low noise receive preamps, or antennas will use the type N connector. They are more expensive than the UHF type connector. The type N is waterproof, if put together properly.

There is, or has been a push in some circles to do away with the UHF connector and replace it with the type N as the standard. There is much to be said for this idea but I don't see it happening any time soon in the ham radio world. I think it would require a concerted effort on the part of most of our equipment manufacturers. However the type N socket will fit into the same sized chassis hole as the UHF SO-239 socket so in some circumstances it might be possible for an individual to replace connectors on some equipment with type N connectors. It really is a better connector.

The "BNC" connector was developed in the late 1940's by Paul Neill and Carl Concelman. Being a bayonet type of connector this is where we get the name BNC, or the "Bayonet Neill-Concelman" connector. Some references claim the N stands for "Navy", or "Bayonet type N Connector". This is incorrect. This connector is useful up to 3 or 4 GHz. for the 50 ohm version. There is also a 75 ohm version but it is useful only to 1 GHz. The BNC connector is commonly seen on test equipment, many VHF/UHF handheld rigs, and some VHF/UHF antennas.

The "SMA" connector is a "Sub Miniature type A" connector. Yes, there is a type B (SMB) and type C (SMC) connector. It was developed in the 1960's by the Bendix Scintilla Corp. for microwave purposes. This connector is generally useful up to 18 GHz. depending on the type of cable used. Actually this connector is meant to be used with semi-rigid coax cable, not the flexible cable that hams use. One drawback is that it supposedly has a limited "threading on/threading off" lifetime, which depends on the applied torque when the connector is threaded on. In other words **don't overtighten it**. Amphenol's technical reference data for the SMA says that this connector is only good for 500 on/off operations. I don't know if I'd ever change my antenna this many times, but I suppose for some hams it is possible. Supposedly after 500 times the SMA starts to lose its "grip" and it's impedance becomes non-

## HARC 2007-2008 Chairs

### Awards Chairman

Casey VanBroekhoven VE3CVP  
905-385-8724 <ve3cvp@gmail.com>

### Contesting Manager / Property

Rick Danby VE3BK  
905-544-3253 <rdanby@arrl.net>

### Education Chair / Flea Market

Mardy Eedson VE3QEE 905-648-0187  
<meedson@cogeco.ca>

### Volunteer Examiners

Lorraine MacPherson VA3NZ  
905-389-7653 <va3nz@rac.ca> and  
Bernard Granby VA3XJ  
905-527-7175 <berngran@hwcn.org>

### Field Day Co-ordinator

David Bruton VE3DWJ  
905-383-9808 <am983@hwcn.org>

### Repeater Chairman

John Vandenberg VE3DVV 905-692-3802  
<JVandenberg@mountaincable.net>

### Health & Welfare Chairperson

Mary Urbanski VE3OGQ 905-388-8383

### Hospitality

Bernie Granby VA3XJ 905-527-7175  
<berngran@hwcn.org>

### Membership Chair / Web Page

Emsley Mitchell VE3JAI 905-627-0333  
<eamitch@mcmaster.ca>

### Newsletter Editor

John Hudak VE3CXB 905-627-9475  
<jhudakjm@mcmaster.ca>

### Public Liaison Co-Chair

Stanley Bolibruch VE3GFE 905-528-4002  
Neil Galloway VE3VNG 905-383-6986

### Swap Net Controller

Don Grisenthwaite VE3DDQ  
905-388-1365 <ve3ddq1947@cogeco.ca>

### Communication

Michael Krebs VA3WXS 905-523-9005  
<mkrebs@sympatico.ca>

### Web Master

Anita Thomas VA3ANI,  
<hamiltonarc.ca>

## Important Points

### Executive Meetings

HARC Executive committee meets each month, except July and August. Members are invited to attend and participate. The meetings are on the Wednesday following the club General Meeting each month. Ask an executive member for the location.

### VE3NCF 146.760 - & 444.075 +

HARC operates VE3NCF repeater, located atop the Niagara Escarpment. It's open for use by all Amateurs. Special features are a privilege of membership.

### Nets

HARC "check-in net" is held every Tuesday evening at 7:30 p.m. HARC "swap net" follows at 8 p.m. All contacts are welcome.

### Examinations

Amateur radio license examinations are conducted the second Wednesday of each month, except July and August. Contact the voluntary examiners to make an appointment. There will be a fee for each examination.

### Membership Information

Club membership, including all privileges, is \$25 per person, per year, Sept 1 to Aug 31. Additional membership, for immediate family living in the same home, is \$1 per person. One newsletter sent to each address.

### The Hamilton Amateur

The Hamilton Amateur is published ten times each year (not in July or August). Deadline for article submission is the last Saturday of the month for the next month's issue. Preferred format is .txt file. Articles will be checked for spelling and grammar, but the author is responsible for factual content. E-mail submissions to Editor, John Hudak VE3CXB, <hudakjm@mcmaster.ca>

constant. This connector is now starting to show up more and more on VHF/UHF handhelds. It is a small, and somewhat fragile connector, and because of the fine threads it is prone to "cross-threading", so be careful when you put on that rubber duckie or other antenna. Also it does not like a lot of sideways force from a heavy coax cable for example. Remember, it was meant to be used with semi-rigid cable which does not move around very much. Even RG-58 may be too heavy for it. I would not use an SMA-to-BNC or SMA-to-UHF adapter with a heavy cable directly on your HT's antenna connector. There are available "pigtail" cables (Rig Savers) which use a short section of thin coax like RG-174 or RG-316 which is supposed to act as a buffer and take up any sideways force from cable movement if you hook your HT up to a larger external antenna. I own an HT with an SMA connector on it and personally I think it is overkill. The BNC type connector is more than suitable for the 70cm. band and it is a more robust connector, but then that's my 2 cents worth. The SMA connector is more appropriate for the folks working up in the microwave bands.

So there you have a little bit of trivia on the four most common RF connectors most hams will see.

## More Trivia

*This next piece of trivia was passed along by Rick, VE3BK:*

For anyone interested when Ontario Hams started using the VA3 prefix for callsigns the following recollections were made by Garry Hammond VE3XN.

The first VA3 call was issued to VA3HAM in 1970 for the International Ploughing Match in Perth County, Ontario. VE3GCO,..

now VE3XN received permission to use the call for one month.

The next time it was used was at the ARRL convention in Toronto...VA3RRL was the call. The date was about 1977 ....? I was present at the convention but cannot remember the exact date..hi.

Glenn, VA3DX + VE3CIR, has more information on the VA3 callsigns. Glenn reports, "I received VA3DX in the mail on December 13, 1993. It was earlier that summer that they decided to issue VA3 callsigns to the general HAM community

Initially they were issuing calls with your first and last initials. I declined that and asked specifically for VA3DX ... I heard nothing until the license showed up in my mailbox !!!!!"

Mardy, VE3QEE recalls that it was about March 1993 that the letter Q was allowed for use at the beginning of the call sign suffix. Before that time the letter Q had been reserved because of its association with the special "Q calls" used in Morse Code, like QRT, QTH, QSL, etc. Apparently the Department of Communications, (later part of Industry Canada), was running out of VE3 calls and allowed the use of Q at the beginning of the suffix to create more calls. I got my call in April 1993 and chose VE3QEE, Q followed by the first two letters of my last name EE. Releasing the letter Q proved to be a stop-gap measure which could not meet the growing demand for more calls and shortly after that, the VA3 calls became available.

## News About Town

*by Mardy VE3QEE*

Stanley, VE3GFE Sources have informed me that Stanley, VE3GFE, is residing at Townsview, on 39 Mary Street on the 4th floor, room 417. His telephone is 905-546-5009. Give him a call.

Student Bursery. The Hamilton Amateur Radio Club has provision for awarding a Student Bursery, although I don't believe that it has



ever been presented. Here are the details:

A chosen student will receive a single \$100.00 Scholarship while in College or University.

To Qualify:

1. The Student must hold a valid Amateur Radio License in order to be considered as a serious applicant.
2. Be active in some of our club functions and events (volunteer) e.g; help out at Field-Day and Victoria Day contests and with the Flea Market etc. to get some experience.
3. Be an independent member of HARC or be a paid member under family membership for at least one Full Year prior to application for scholarship.
4. Must show proof of enrollment in the second year of college or university.
5. The student will present their application at the October meeting when above requirements #1, #3, are fulfilled.
6. The Candidate will write a sincere and creative 500 word essay as to:
  - (A) Who they are.
  - (B) Why they should be considered for a scholarship.
7. The lucky student will be chosen by HARC EXECUTIVE COMMITTEE at the January business meeting and the presentation shall be made at the February General Meeting.

If there is a possible candidate let us know.

Presentation at the Library. On November 6th in response to an invitation from the Hamilton Public Library a small group of HARC volunteers arrived at the Hamilton Public Library's Main Branch to give a noon hour presentation about Amateur Radio. Jerry Osborn VE3JSO contributed a power-point presentation about Amateur Radio. Lorraine VA3NZ, and Al Macpherson VA3AM and Mardy Eedson, VE3QEE, contributed displays of club activities, and radio equipment, while the library staff set up a display of publications and memorabilia on hand at the Main Branch. This event was one of a series of free public noon-hour presentations taking place



in the first floor conference studio. The series is ongoing and advertised by posters in the Library and Jackson Square. We were received by our hostess, a Librarian called Naomi, who assisted in readying the room. To our disappointment, no one arrived to hear the presentation, so we decided to deliver the presentation anyway. We had an audience of one, Naomi, and treated the event as a rehearsal. In conclusion, we decided that it is probably better to showcase our hobby at places where other activities are already drawing a crowd, rather than trying to attract an audience through advertising alone.

As an aside, that day was very windy and I was wrestling a large display board from a parking lot on Cannon Street, over to the Library on York Street. The thing was like a sail. By the time I got to the Library a very nice QSL card from Austria had been blown away by the wind and was missing from the display. Fortunately there was a couple extra cards so the empty space could be filled. Afterward, while wrestling the display back through the wind, I came across the missing QSL card, undamaged, and lodged in the shrubbery at the edge of the parking lot. It is now back

in its proper place on the display, ready for another showing.

And, for the last piece of news:

Patrick Maille, VA3PMA, citizen of Canada Please join me in congratulating Patrick Maille who recently received his Canadian Citizenship in a ceremony presided over by Bob Morrow. Welcome Patrick, fellow Canadian.

## Group Bus Trip to Dayton Hamfest 2008

*Spadework by Jerry Osborn, VE3JSO*

Following up a suggestion that we should look into having a group trip to the next Dayton Hamfest we have consulted with a tour operator. Here is a proposed itinerary for the group bus trip to Dayton. We need a minimum of 20 people for the trip to get off the ground. Any questions, send me an e-mail at: [ve3js@gmail.com](mailto:ve3js@gmail.com)



Provider: **Gold Crest Tours**  
Bus Tour to DAYTON, OHIO.

Tour duration: May 16th, 17th and 18th, Friday, Saturday and Sunday, 2008

Join the group for this great trip to Dayton, Ohio for the Amateur Radio Convention.

Package includes:

- \*2 nights deluxe accommodations
- \*Coach Driver's room
- \*All hotel taxes, and baggage handling for 1 large bag in the luggage bay
- \*2 full breakfast buffets
- \*2 happy hours (one each night) from 5:30 pm to 7 pm that include complimentary beer, wine etc, soft drinks and snacks.
- \*15 minutes of free long distance calling to Canada
- \*Free local calls
- \*Deluxe, modern Motor Coach Transportation
- \*Luggage tags

Carry on bags are allowed, 1 per person, to fit in the overhead compartments.

There is a strip mall not far from hotel with a Marshalls & Coles etc.

Restaurants near the hotel are: Panera Bread, and Red Lobster, both adjacent.

**COST PER PERSON:**

- \$369. cdn. twin with 20 sold seats
- \$298. cdn twin with 30 sold seats
- \$265. cdn twin with 40 sold seats

Deposit of \$100. due January 16 together with postdated cheque for final payment

Final payments due March 15th  
All cheques made payable to: Steel City Travel

I.D. is required for entry to the USA; Passport, or Canadian Birth Certificate or Immigration Card together with government issued picture I.D.

Travel Insurance is available, through Gold Crest Tours, and if purchased is payable with deposit. Please inquire.

Tour & Travel arrangements by: Gold Crest Tours/Steel City Travel  
601 Upper James St, Unit 3,  
Hamilton, Ont. L9C 2Y7 Phone:  
905 528-1551

Licensed by TICO #02459507 and #04619508

Any questions, please e-mail me at: [ve3jso@gmail.com](mailto:ve3jso@gmail.com)

## The Club Web Site

*Anita, VA3ANI, a professional web developer, who has designed and who maintains our HARC web site, has sent along some interesting web site statistics as of Saturday, Dec. 1st, 2007 - 23:56:11*



I thought you might find it interesting to review the following statistics about action on our Club web site:

The new HARC web site has received 334,296 page views since March of 2007. Today alone there were 1,943 hits, and yesterday 2,414 hits.

The day on which there was the most traffic so far was Wednesday, June 13, 2007 (28,480 page views), while Sunday, March 25, 2007 was the day with the fewest hits (only 1 page view).

Most people visit on Saturday, with a total of 77,995 page views, while Monday is the day with the fewest visits, with a total of 30,202 page views.

On average, the busiest hour (with 17,104 page views) is from 10:00 AM to 11:00 AM, The hour during which traffic has been lightest is from 17:00 to 18:00, or 5:00 PM to 6:00 PM, (with only 11,325 page views).

If you haven't checked out the web site for a while, or if you haven't visited ever, please log on and explore the features at HARC's new spot on the world wide web: [hamiltonarc.ca](http://hamiltonarc.ca).

## 75th Anniversary Christmas Party

by Mardy VE3QEE

Thanks to all who attended the annual Christmas Party which took place at the Royal Hamilton Yacht Club. The event was well attended. A special thanks to Laurel Thompson, who spent the better part of a day making corsages for the ladies, and to Murray Thompson who sponsors our group at the Yacht Club. Thanks also to John Vandenberg who asked the blessing and of course to Fred Robinson who has organized and hosted the event for several years running. Among the variety of wonderful dessert delectables was a cake decorated to commemorate the Club's 75th anniversary of operation and Mary Urbansky did the honour of cutting the cake. Thanks to Rick Danby, John Cassay and Mardy Eedson who sent along pictures for the newsletter. Pictures on pages 7 and 8.

## Contest Corner

by Rick Danby, VE3BK

Here are the final results of the CQWW160 meter SSB 2007 contest from CQ Magazine December 2007

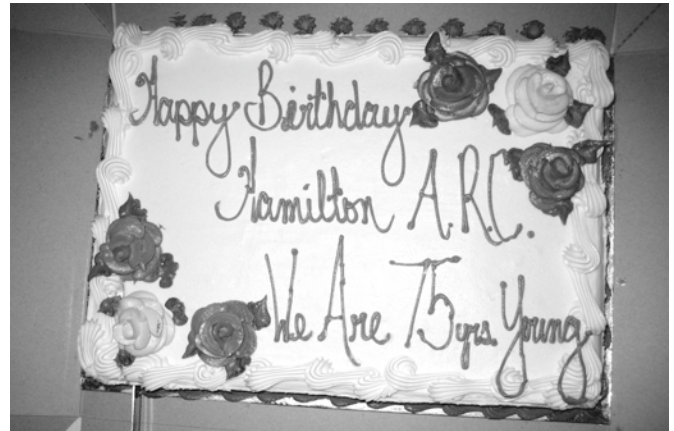
Multi-Op~~ 1st Place Ontario  
Multi-Op Certificate Winner~~ 1st Place Multi-Op in Canada

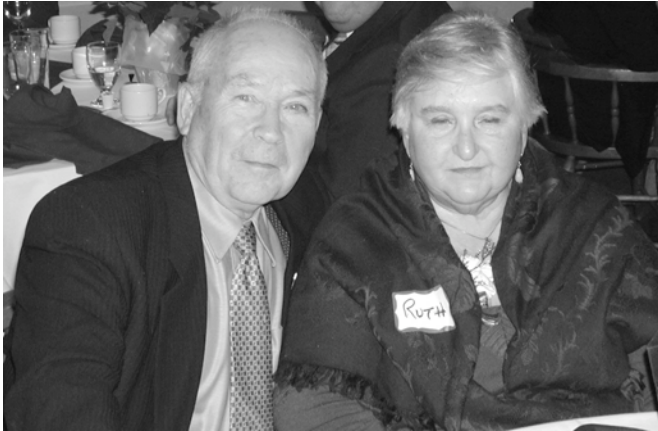
VE3DC in the Multi-Op category earned 65,832 points with 273 contacts 47 countries and 5 provinces.

Operators included :VA3DJ VE3BK VE3CXB VE3DVV VE3GCP VE3JAI VE3RYI

Visitors:VE3BAU Adam (a new Ham) and his companion Kasandra as well as VA3YP a competitor who dropped by for a chat, while taking a break from his own station.

Thanks to all who helped out, and congratulations for a great score.







The final sc•