

# GROUNDWAVE

June 1999

Check out our Web Page: [www.oarc.net](http://www.oarc.net)

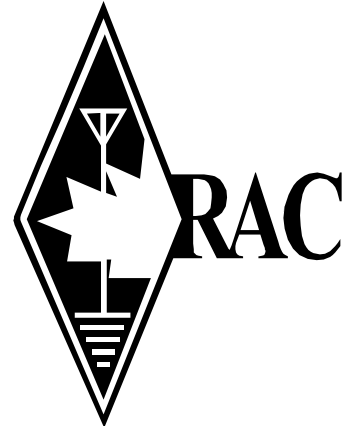
The International Space Station...



**The hottest news from AMSAT inside!**



**AMSAT**



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## Club Information

**The Ottawa Amateur Radio Club, Inc. (OARC).** Is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the National Capital Area; and to the advancement and achievement of club members.

**Regular Meetings of the OARC Inc.,** are held on the first Wednesday of each month (except July and August) in the Keefer Room (2nd floor of the Old Teacher's College) of the Regional Municipality of Ottawa Carleton Head Quarters complex on Lisgar Street. Meetings commence at approximately 19:30 hours. Further details about each meeting is elsewhere in this publication.

**Executive Meetings of the OARC. Inc.,** are normally held on the second Wednesday of each month at 19:30 hours. Contact the President to confirm the date, time and place of the next meeting.

**Packet Radio Meetings** will be held at 19:30 hours on the last Thursday of every second month beginning in September, at the Algonquin College - Lees Campus. This is an OARC Inc. Technical meeting open to all who have an interest in packet radio.

## NET's of Interest

**The Capital City FM Net** meets every Monday at 20:00 hours on the club repeater VE2CRA to pass traffic and to make announcements of interest to amateurs in the National Capital Region.

**The SWAP Net** is a service provided and conducted by Dan Reardon, VE3GUU. This feature appears on the Capital City FM Net. To list items and make inquiries, call Dan Reardon at 721-3339, [ve3guu@igs.net](mailto:ve3guu@igs.net). Also available on the web: <http://www.igs.net/~swap>

**The POT-HOLE NET** is a SSB/HF net sponsored by the Ottawa Valley Mobile Radio Club and is conducted every Sunday at 10:00 hours on 3.760 Mhz. All amateurs are welcome to check in. The SWAP Net is a regular feature of this net.

**The POT-LID CW NET** is an informal slow-speed CW net sponsored and conducted by Ed Morgan, VE3GX, and meets every Sunday, except during July and August, at 11:00 hours on 3.620 Mhz, to promote interest in CW and CW procedures.

**The QCWA Chapter 70 NET** every Thursday evening at 2000 hrs local time. Repeater VE3TEL is used, courtesy of the Pioneer Amateur Radio Club. The frequency is 147.03 out, 146.43 Mhz in. The callsign used is VE3QCW. Visiting Hams are invited to check into this Net. You do not have to be a QCWA member to check into this Net.

## Club Repeaters

Voice (VHF)	146.94/146.34	100 Hz output tone
(UHF)	443.300/448.300	
Packet	147.07(sx)	For QSO and Packet BBS.
Packet 56 kbps	220.55/433.55	
East of Ottawa	145.69(sx)	
Ottawa Centre	145.07(sx)	
Hull	145.05(sx)	
West of Ottawa	145.03(sx)	
South of Ottawa	144.91 (sx)	
Nepean	145.59(sx)	
West Carleton	144.97(sx)	

## OARC Inc. Memberships

- **Individual Membership** is available for \$20.00
- **Family Membership** is available for \$25.00
- **New Hams** just licensed may qualify for free membership, contact the membership Chair.
- **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 50% discount but the junior member must pick up his/her copy of the Groundwave (preferably at the meeting).

## May Meeting Minutes

May 5, 1999

The meeting of the Ottawa Amateur Radio Club was called to order by President Ed Strange, VA3MPY. Ed welcomed out guests for the evening, Andrew, VE6PVE, Glen, VE3GLN and Elizabeth, VE3MAX.

A request was made for haves or wants.

Mike, VE3FFK requested volunteers for the Electrathon on Saturday, June 5 at the Ottawa-Carleton Speedway. Fred VE3IO gave details on the competition and all were encouraged to volunteer to assist with communications or go and observe the activities.

Ed reminded the meeting of Field Day on June 26 and 27. He requested a coordinator to help plan the event. The site was discussed and it was noted that a new location may be required this year due to changes at the existing site. Moving to a different area at the Nortel site or Andrew Haydon Park were suggested and will be looked into.

As a prelude to Home Brew night, Clair, VE3NPC, who has, to the great delight of other competitors removed himself from the active competition showed the meeting a couple of his latest creations.. He presented a band pass filter to be used to remove interference from Carleton University while he is working satellites. He also showed a boom mike created from a few inexpensive parts which has now superceded his much more expensive desk mics.

The two contestants this year were Brian, VE3ZRK and Mike, VE3FFK.

Brian presented his entry via photographs showing his "extension mast" antenna made from an 20 foot extension ladder and a multitude of clamps and dirty looks from his wife. Pictures were passed around and questions were asked about construction. Brian reported that in upcoming weeks the support structure will be removed. Oddly enough a 28 foot ladder was delivered to his home last week.

Mike's contribution for the evening was a 6 metre rig built by himself. He wanted to have a rig without microprocessors after having problems in the past with commercial rigs. So Mike's project was a work in progress. He passed around the chrystal bought at ADD. That is it. The rest might show up next year!!

Andrew, VE6PVE was asked to act the evenings judge. He announced the winner later in the evening.

### ANNOUNCEMENTS:

- CPC breakfast Saturday, May 8 at 9 AM The Greek Soufflaki at Prince of Wales and Baseline. Contact VE3WGL@rac.ca for reservations.

-VA3OTW on air. New controller installed and 220 up and running.

- Repeater council meeting May 16 at 13:00 in Baldi's Restaurant in Iroquois.

### AIR SHOW:

-Bill, VE3NPG is running air show communications this year and is looking for volunteers. May 29-30, 08:30-17:00. Contact VE3NPG@rac.ca .737-4003. No radios are required.

Rick VE3IHI received a call from The Communicable Disease Centre. They are interested for Y2K support.

The executive, after learning of The Telephone Pioneers, (PARC) recent and continuing troubles, offered any assistance required. The offer was acknowledged but no requests have been made thus far.

Eco Challenge is looking for radio volunteers May 29-30. See last month's Groundwave for details.

Jim, VE3XJ, mentioned the military Y2K exercise, Operation Vigilance, will be happening soon.

Jim, VE3XJ said everything is on track for the Fleamarket, which will occur on September 4 at Carp Fairgrounds. (Secretary's Note: An ad for this event has been arranged in The Canadian Amateur Magazine.)

Fred Green had tickets for CHEO Duck race for sale.

Brian, VE3ZRK reported that Bob Lawson, VA3YLR although not at the meeting was feeling better.

Andrew, VE6PVE announced Brian, VE3ZRK was winner of the Home Brew.

# Radio Amateurs of Canada

All News below is received from Radio Amateurs of Canada (RAC) bulletin service. Readers may subscribe to this service, visit the RAC website at [www.rac.ca](http://www.rac.ca) for more information. Guy Charron VA3FZA Bulletin Editor. Email: [va3fza@rac.ca](mailto:va3fza@rac.ca) Packet: [va3fza@ve3kyt](mailto:va3fza@ve3kyt)

**Subject: RAC Bulletin 99-038**

**New Alberta SM**

**Date: May 3, 1999**

Alan Faint, VE6QQ was recently elected Section Manager for a two year term that will begin on July 1, 1999 in the Alberta Section. Alan ran unopposed, eliminating the need for a balloted election. As this position is now vacant Section Manager elect Alan Faint, VE6QQ has agreed to assume his new duties immediately.

Pierre Mainville, VA3PM  
RAC Field Services Manager

**Subject: RAC Bulletin 99-042**

**RAC Treasurer Watson, VE3GTX resigns**

**Date: May 10, 1999**

After taking office January 1 this year, John Watson, VE3GTX has resigned his position as Treasurer of Radio Amateurs of Canada. Like all RAC Executive Officers and Directors, the RAC Treasurer is a volunteer. Mr. Watson was appointed by Pat Doherty, VE3PD who himself resigned two weeks ago. He assisted with Mr. Doherty's implementation of cost-cutting measures to meet a decline in RAC membership and consequent decline in revenues throughout 1998. Mr Watson's detailed budget has been presented for 1999. Following a significant loss in 1998, the RAC financial situation is turning around, after a low at year end.

Sincere thanks are extended to Mr. Watson for his contribution to RAC.

Doug Leach, VE3XX  
Acting President, Radio Amateurs of Canada

**Subject: RAC Bulletin 99-044**

**Search for HF digital operators**

**Date: May 11, 1999**

Emergency Preparedness Canada (EPC) looking for volunteer amateurs in Ottawa, the provincial and territorial capitals who have experience with HF digital operation. Those who have experience with Pactor or Clover or both are highly desirable in the project. EPC is acquiring equipment to establish a digital HF network to support EPC needs in case there are any commercial communications failures during the Y2K timeframe.

These activities will be undertaken in co-ordination of the SSB network established by the Canadian Forces Affiliated Radio Service (CFARS).

For information contact: Jim Cummings,  
Telecommunications Manager,  
Emergency Preparedness Canada  
2nd Floor, Jackson Building  
122 Bank Street, Ottawa, Ontario K1A 0W6  
Phone: (613)991-7006 Fax: (613)996-0996  
[jcumings@epc-pcc.gc.ca](mailto:jcumings@epc-pcc.gc.ca)

Subject: RAC Bulletin 99-045

VE3FGW new RAC treasurer

Date: May 12, 1999

In accordance with the RAC Constitution, the Board of Directors is pleased to announce the appointment of Bill Rothwell, VE3FGW as Treasurer of Radio Amateurs of Canada to serve for the balance of this year's term. Like all Directors and Executive Officers, the Treasurer is a volunteer, serving without compensation.

Bill has a distinguished accounting career, retiring in 1998 as Controller of a major Ottawa real estate and property management company with complex multi-building operations and budgets in the tens of millions of dollars. He has also served as Treasurer for the Canadian national operations of another not-for-profit membership association like RAC.

We are most fortunate to have the services a professional accountant with superb qualifications and experience, who is also a long-time radio amateur. Bill will provide financial support for the RAC General Manager and head office operations.

Doug Leach, VE3XX  
Acting President, Radio Amateurs of Canada

**Subject: RAC Bulletin 99-046**

**IC Proposal to streamline authorization process**

**Date: May 17, 1999**

Industry Canada has released its proposal to streamline the authorization process for the Amateur Radio Service. In short Industry Canada proposes:

- to make the Amateur Radio Operator Certificate the sole authorization document
- eliminate the radio licence thereby eliminating the licence issuance fee, the short term fee and the \$24 annual renewal fee
- to modify the operator certificate to include the operator's assigned call sign
- to charge a fee (\$60) for user initiated transactions.

## Radio Amateurs of Canada, continued

The complete documentation can be found on the Industry Canada web site:

<http://strategis.ic.gc.ca/SSG/sf01709e.html>

**Subject: RAC Bulletin 99-048**  
**RAC appoints new Secretary**  
**Date: May 23, 1999**

In accordance with the RAC Constitution, the Board of Directors of Radio Amateurs of Canada is pleased to announce the appointment of Dawn MacKay, VE1MAK, to serve the unexpired term to December 31, 1999 of former Secretary Joe MacPherson, VE1CH.

Like all Directors and Executive Officers, the Secretary is a volunteer, serving without compensation. Dawn is an Office Manager with Nova Scotia Dept of Agriculture Marketing and Food Industry Development Branch in Truro, NS. She is also the Secretary of the Truro Amateur Radio Club and is Editor of their club newsletter. RAC members may recall her article in The Canadian Amateur issue of November, 1998 and the cover photograph of Dawn and her fellow club members during their Pictou Island IOTA DX-pedition. Dawn's experience in both administration and amateur radio will make her a strong asset to RAC.

Doug Leach, VE3XK  
 Acting President, Radio Amateurs of Canada

**Subject: RAC Bulletin 99-049**  
**On Air Events Reminder**

May 29-30	CQWW WPX Contest, CW
May 30	ARCI QRP Hoot Owl Sprint, CW
May 31-June 1	Memorial Day CW Sprint, CW
June 5	QRP TACTical Contest, CW
June 5-6	IARU Region 1 Field Day, CW

The callsigns CF3 for VE3 and VX3 for VA3 have been approved by use by the amateur community for the 75th anniversary of the RCAF for the period June 1 - June 30, 1999

## Elections

Almost a full slate for the upcoming year!

If you would like to contribute to our club and our hobby, please contact Richard, VE3UNW, 225-3275 or email [ve3unw@rac.ca](mailto:ve3unw@rac.ca)

## News from Near and Far

### It is that time again - CPC Club Breakfast

It is that time again and you must ensure that your cholesterol level is correct by attending the CPC Breakfast Club on June 12th, 1999 at Louis Steakhouse

Guy, VE3WGL [ve3wgl@rac.ca](mailto:ve3wgl@rac.ca)

### AMSAT NEWS SERVICE BULLETIN 136.0 MAY 16, 1999

ANS is pleased to report on a new development concerning the launch of AMSAT's most ambitious project to date - Phase 3-D. Keith Baker, KB1SF, AMSAT-NA President, released a letter dated May 14, 1999 from Dr. Karl Meinzer, DJ4ZC, AMSAT-DL President and Phase 3-D Project Leader. The letter - addressed to Dayton Hamvention attendees - sheds new light on the current launch status of the Phase 3-D International Satellite.

Dr. Meinzer wrote:

Greetings!

As you well know, I very much have been looking forward to joining you for the 1999 Dayton Hamvention. Unfortunately, recent developments regarding our launch situation for Phase 3-D have now made it necessary that I remain here in Germany during the Hamvention event. As many of you know, AMSAT-DL is the principal agency responsible for securing a safe and affordable launch for Phase 3-D.

Since this project began, we had secured such a launch opportunity on one of the Ariane-5 test flights, which were conducted under the control of the European Space Agency (ESA). Unfortunately, this launch agreement for P3-D with ESA did not work out, essentially due to the failure of the first Ariane-5 flight and the resulting aftermath. Since ESA is not conducting such flights anymore, my team and I have been working very hard over the past year or so to find a replacement launch. We have been patiently negotiating with a number of different launch agencies and it looks now that this work is starting to pay off as it is beginning to yield results. I am pleased to report to you that we are currently in the final phase of working out the details of an agreement for the launch of Phase 3-D with one of these launch agencies.

At this point, I am very optimistic and I believe this launch agency is genuinely working very hard toward providing us a launch for P3-D. I am also very hopeful that in the following weeks a launch contract can be closed which contains conditions we can meet. The

## News from Near and Far, continued

agency has now identified some launches over the next year or so which have enough performance margin to allow the inclusion of P3-D in addition to the main payload. The launcher business these days has become extremely competitive and it is has become nearly impossible for launch agencies to fix their launch-plan for more than half a year ahead. Thus, even after our contract is closed, we will remain a stand-by passenger. However, judging from the presently known plans, they could - and I emphasize the word could - lead to a launch of our satellite as early as of October 1999. Of course, this all assumes that the remaining open details of our interface with their launch vehicle can be successfully worked out and that we do not run into some last-minute problems with our contract.

Needless to say, I am delighted with this turn of events. My only remaining wish is that I could be there in Dayton to share them with you in person. Please accept my sincere best wishes for a productive AMSAT Forum at Hamvention and my thanks for your continued patience and strong support of our efforts.

73, Dr. Karl Meinzer, DJ4ZC  
AMSAT-DL President and Phase 3-D Project Leader

Stay tuned to ANS for further details of the Phase-3D launch as they become available.

For more information about AMSAT and Phase 3-D, visit the AMSAT-NA web site: <http://www.amsat.org>

ANS thanks Keith Baker, KB1SF, AMSAT-NA President, and Dr. Karl Meinzer, DJ4ZC, AMSAT-DL President and Phase 3-D Project Leader for this information

### AMSAT NEWS SERVICE BULLETIN 136.02 MAY 16, 1999

In addition to the wonderful news concerning Phase 3-D, there has also been recent forward progress in activities to establish a permanent amateur radio presence in space aboard the International Space Station.

Training models have been prepared of the antennas that eventually will be deployed on ISS, and pattern testing is



under way on some antenna systems. Four flight antenna systems are being developed to support operation on 20, 15, 10, and 2-meters, plus 70-cm, L-band and S-band.

"The ARISS international team has made tremendous progress on the design, development and flight qualification of an antenna system," AMSAT-NA Vice President for Human Spaceflight and ARISS Administrative Chairman Frank Bauer, KA3HDO, said this week.

The antenna system being developed for ISS includes a dualband VHF/UHF antenna, a multiband microwave antenna and a diplexer mounted on a plate that attaches to an extra vehicular activity (EVA) handrail clamping device. These four antenna systems will attach to four bulkhead Service Module feedthroughs, made available to the ARISS international team through the efforts of Sergei Sambourov, RV3DR. The four antenna systems being developed for flight will be installed around the perimeter of the Russian developed Service Module, which will serve as an orbiting outpost for the ISS crew.

All amateur radio initial station hardware is slated for launch on the STS-101 mission.

ANS thanks the ARRL and AMSAT-NA Vice President for Human Spaceflight and ARISS Administrative Chairman Frank Bauer, KA3HDO, for this information

## Field Day

Field Day is fast approaching! Typically held the last rainy weekend in June, this year's will be held on **June 26 & 27th**. The usual site at **BNR** is the expected site, but with **Paul Coverdale, VE3ICV** unable to attend this year, plans are a bit up in the air.

We are desparately looking for someone to **co-ordinate** Field Day! If you want to volunteer, please contact one of the executive or email [exec@oarc.net](mailto:exec@oarc.net)

The contest with **WCARC** is heating up and "they" are preparing furiously! We only lost by about a hundred points last year and we want to bring the trophy home!

The trophy is an engraved plaque which hangs throughout the year at RAC headquarters.

# WCARC

The WCARC club web page can be found at: [HTTP://www.wcarc.on.ca](http://www.wcarc.on.ca). Check it for the latest and greatest news!

Two new products are available from the West Carleton Amateur Radio Club! A GPS engine on a SIMM and a very small but very hot GPS antenna. To look at the full product sheets, or for ordering information, go to their website.

The club sold them at Dayton this year and they were very well received!

## SGM3900P


Version 1.0, February 1999

**High Performance  
Low Noise  
Active GPS Antenna**

**Data Sheet**

**Features:**

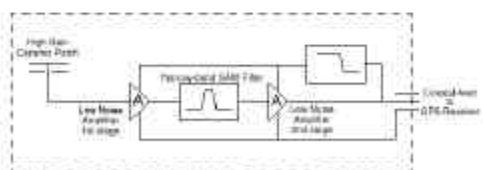
- Ideal companion for portable GPS systems
- Low power (7mA typical @ 5.5V)
- Circuit voltage level (3.0 - 5.5V)
- High performance ultra-low noise LNA
- Extremely low noise figure (3.6 dB typical)
- 20 dB gain (typical)
- Interfaces to standard GPS receivers
- Compact mounting style
- Excellent use of board signal space
- High gain omnidirectional
- Excellent low angle coverage



The SGM3900P active antenna includes a high performance small element, ultra-low noise amplifier and low-noise LNA (LNA). The circuit is designed for best stability through a minimum operating range caused by adjacent circuit and requires only a minimal ground plane on high performance.

This design and low power (7 mA @ 5.5V) make the SGM3900P ideal for portable and mobile applications.

**SGM3900P Block Diagram**



West Carleton Amateur Radio Club      - 1 -      www.wcarc.on.ca

## SGM5600S

Release A, May 1999

**Data Sheet**

**Global Positioning  
SIMM**

**Features**

- Low cost
- No external components
- Low Noise Figure (4 dB)
- Suitable for RTT
- Direct interface
- Small size: 19mm x 25mm x 1mm SIMM
- DC feed to active antenna
- Application specific features
  - 12 channel GPS correlation DSP hardware
  - IEEECA-SC199/WAAS/RTCM support
- GPS performance
  - accuracy
    - stand alone: <math>\pm 10m</math> (with SA on)
    - <math>\pm 3m</math> (with SA off)
  - differential: <math>\pm 1m</math>
  - velocity: <math>\pm 100</math>

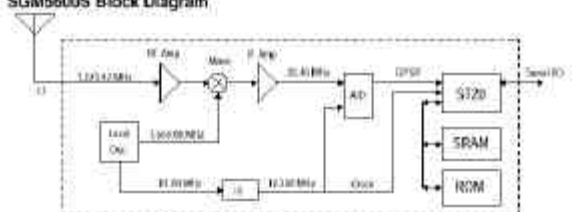
**Power Management**

- 3.3V only
- low power operation

**Applications**

- Navigation Systems
- Surveying
- Security and tracking
- Fleet management systems

**SGM5600S Block Diagram**



West Carleton Amateur Radio Club      - 5 -      www.wcarc.on.ca

## Next Meeting

**The Finer Points of Publishing...**

Material published herein, does not necessarily represent the official OARC viewpoint.

Items may be reprinted by Amateur Radio Clubs or other publications provided that proper credit is given to the author and to the OARC, Inc.

We also miss a credit on occasion. If this happens to your article, please email us so we may print a correction.

The next meeting will be held Wednesday, June 2nd at 19:30 at the RMOC headquarters - 111 Lisgar St.

**June is Elections, Volunteer Award presentations, and a special home-brew presentation from Clare Fowler**

## OARC Hamfest '99

The Ottawa Amateur Radio Club, Inc. is pleased to announce it's 3rd annual Hamfest.

**Saturday, September 4, 1999 (Labour Day weekend)**

Tailgaters Open and Building Vendor setup: 9 am

Building Opens: 10 am until 1 pm

**Carp Agricultural Fair Grounds**

3970 Carp Rd (at Falldown Lane)

Carp, Ontario Canada

**Highway 417 to Carp Road exit, North to Carp and the fairgrounds**

We have moved to a larger building on the same site so watch for the FLEA MARKET signs.

**\$3 general admission**

**\$5/tailgate (plus admission)**

**\$10/table (plus admission)**

Tickets are to be sold for a very Special Door Prize:

A Fabulous **ICOM PCR1000** Wide Band Computer Scanning Receiver.

Very Generously Donated by:

**Bytown Marine Limited**

5 Corvus Court

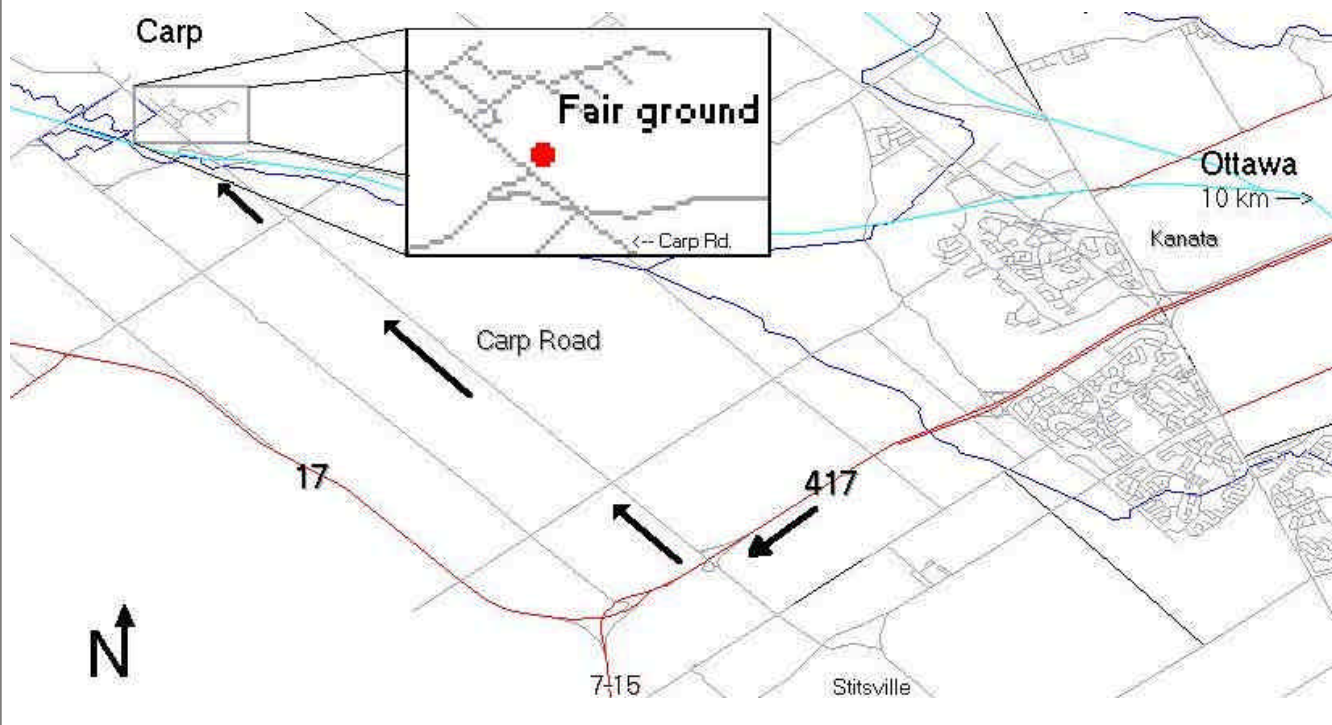
Nepean, Ontario, K2E 7Z4

Phone: (613) 723-8424

The OARC Hamfest is held at the same time as the Carp Farmer's Market. So in addition to their amateur radio needs, guests can also enjoy stocking up on farm fresh produce and crafts from local artisans. Bring the family!

**Talk-in on VE2CRA , 146.940 - Mhz**

For further information or reservations contact: Jim Cummings ,VE3XJ 613-446-1225(H) fleamarket@oarc.net  
<http://oarc.net/fleamarket>



# Membership Form

## Ottawa Amateur Radio Club Inc.

Box 8873  
Ottawa, ON  
K1G 3J2

### Membership Renewal / Application

Callsign(s) \_\_\_\_\_|\_\_\_\_\_|\_\_\_\_\_

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Prov|\_\_\_\_\_| Postal Code|\_\_\_\_\_

Home Phone \_\_\_\_\_ - \_\_\_\_\_ Work Phone \_\_\_\_\_ - \_\_\_\_\_ ext \_\_\_\_\_

Email Address \_\_\_\_\_ @ \_\_\_\_\_

Current Qualification: Basic  Advanced  Grandfathered   
5 wpm  12 wpm  Year Licensed 19 \_\_\_\_\_

- Renewal (\$20 single, \$25 family, \$10 junior)
- Newly Licensed ham - \$FREE if licensed in current membership year
- New Single Membership - \$20 (\$15 after February)
- New Family Membership - \$25
- New Junior Membership - \$10