



# THE RADIOSPORT ISSUE...

JULY / AUGUST 2012 – JUILLET / AOÛT 2012

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Editor / Rédacteur en chef  
Alan Griffin  
Email: <tcamag@yahoo.ca>

**Advisors / Conseillers**

Bob Kavanagh, VE3OSZ  
Dave Green, VE3TLY  
Frances Roach, VE3HKG  
Gerry Trotter, VA3GLT  
Norm Rashleigh, VE3LC  
Mike Kelly, VE3FFK  
Richard Ferch, VE3KI  
Bill Karle, VE4KZ  
Len Morgan, VE9MY  
Ken Grant, VE3FIT

**Translation / Traduction**

Ante Laurijssen, VA2BBW  
Alan Bulley, VA2UK  
Serge Langlois, VE2AWR  
Noël Marcil, VE2BR  
René Levesque, VE2CNJ  
Donald Courcy, VE2CW  
Daniel A. Lamoureux, VE2KA  
Claude Lalande, VE2LCF

**Technical Diagrams / Schémas technique**

Stan Smith, VE3DDX

All correspondence, submissions, advertising subscription inquiries should be sent to :

The Canadian Amateur  
720 Belfast Road,  
Suite 217  
Ottawa, ON, Canada  
K1G 0Z5  
Tel. 613-244-4367;  
1-877-273-8304  
<tcamag@yahoo.ca>  
Website: <www.rac.ca>

La correspondance, les communications et les questions relatives à la publicité et aux abonnements doivent être adressées à :

The Canadian Amateur  
720 rue Belfast  
Bureau 217  
Ottawa, ON, Canada  
K1G 0Z5  
Tel. 613-244-4367;  
1-877-273-8304  
Courriel : <tcamag@yahoo.ca>  
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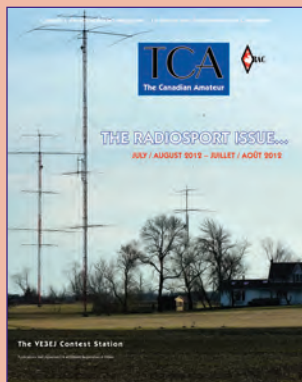
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# Canada's Amateur Radio Magazine

## La Revue des RadioAmateurs Canadiens

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### OUR COVER: OUR SPECIAL RADIOSPORT ISSUE



"Welcome to the World of Amateur Radio Contesting! This special issue of TCA is about Amateur Radio, not as a hobby or as a service, but as a sport. Sport is an activity which attracts many people. Sport tests one's abilities: technical skills; stamina; intelligence; tactical ability; and competitiveness. This applies whether the sport is hockey, Scrabble tournaments, marathon running or cricket.

Amateur Radio contests are a form of Radiosport with all of the above challenges. In fact, Radiosport includes activities such as Amateur Radio Direction Finding and code sending/receiving competitions as well as what are usually known as contests. In this issue of The Canadian Amateur we present articles which describe some of the various Amateur Radio contests." – see page 5.

I would like to thank everyone who contributed to this special Radiosport issue: the authors; the members of the Editorial Review Council; and a special thanks to Bob Kavanagh, VE3OSZ, Mike Kelly, VE3FFK, Bob Nash, VE3KZ, Richard Ferch, VE3KI and Dave Green, VE3TLY. I hope you like it! Ed.

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### VE2 Bureau (A, B)\*

Jacques Dubé, VE2QK  
875 rue Sévère  
Trois-Rivières, PQ G9A 4G4

### VE3 Bureau (D)

Mike Christmas, VE3XMS  
PO Box 216  
Streetsville, ON L5M 2B8

### VE4 Bureau (B)

Adam Romanchuk, VE4SN  
26 Morrison Street  
Winnipeg, MB R2V 3B4

### VE5 Bureau (B)

Joe Musgrave, VA5JM/VE5CEM  
4510 39th Street  
Lloydminster, SK  
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### VE6/VA6 Bureau (B)

Rich Roadhouse, VE6AX  
372 Cedarpark Drive SW  
Calgary, AB  
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### VE7 – VA7 Bureau (B)

Ken Clarke, VE7BC  
12441 – 58A Avenue  
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Hugh Henderson, VY1HH  
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(\*Note: Method B is preferred).

## Silent Keys – In Memoriam

*With regret, we record the passing of these Amateur Radio operators:*

*ICA regrette de vous annoncer le décès des radioamateurs dont les noms suivent :*

VA3EMS – Jerry Fielding, of Windsor, ON, at age 74, on April 2, 2012.  
VA3VMD – Verla Dobson, of North Augusta, ON, at age 60, on June 3, 2011.  
VE1CJO – Philip Bagnell, of Sydney, NS, at age 92, on April 28, 2012.  
VE1KB – Gerry Doyle (VE0FA), of Moncton, NB, at age 85, on April 23, 2012.  
VE1OAK – David Hoadley, of Middle Sackville, NS, at age 87, on March 27, 2012.  
VE1QL – Doris Ogilvie, of Fredrickton Junction, NB, at age 93, on April 9, 2012.  
VE1WR – Alfred Boyden, of Hammonds Plains, NS, at age 91, on May 21, 2012.  
VE2NBB – Benson Benson, of Westmount, QC, on April 6, 2012.  
VE2XAA – Oleksiy Yushin, of Pierrefonds, QC, in August 2012.  
VE3AIJ – Gordon Stanger, of Rideau Ferry, ON, at age 89, on December 6, 2011.  
VE3BFB – Otto Kozdon (VA3OK), of North York, ON, on December 16, 2010.  
VE3BVM – Cy Heddington, of London, ON, at age 90, on April 9, 2012.  
VE3DEQ – Norm Perrault, of Waterloo, ON, at age 80, on August 20, 2011.  
VE3DJX – Jim Douglas, of Smiths Falls, ON, at age 74, on September 16, 2011.  
VE3DQL – Gerry Spooner, of Chalk River, ON, at age 81, on March 25, 2012.  
VE3DUF – Bob Fugard, of Burlington, ON, on September 28, 2011.  
VE3EUV – Doree Orpwood-Butler Pettifer, of ON, at age 89, on December 27, 2011.  
VE3GFX – Doug Yerxa, of Gloucester, ON, at age 75, on April 20, 2012.  
VE3HGL – Harold Rolfe, of Southampton, ON, at age 95, on October 22, 2011.  
VE3HS – Harold Seibel, of Oshawa, ON, at age 88, on Apr 6, 2012.  
VE3HTW – Larry Robinson, of Stratford, ON, at age 69, on December 2, 2011.  
VE3JHI – Bud Pearce, of North Bay, ON, at age 89, on November 27, 2012.  
VE3JQ – Keith Fiske, of Thunder Bay, ON, at age 99, on April 1, 2012.  
VE3KAH – Rolly Guillemette, of North Bay, ON, at age 88, on May 12, 2012.  
VE3KIY – Alex Milne, of Gloucester, ON, at age 78, on April 30, 2012.  
VE3MDC – Doug Clark, of North Bay, ON, at age 61, on March 29, 2012.  
VE3MQ – Douglas Knox, of Windsor, ON, at age 75, on April 3, 2012.  
VE3MW – Hap Chafe, of Perth, ON, at age 87, on April 25, 2012.  
VE3SY – Paul Cassel (VE3AVY), of Baden, ON, on April 30, 2012.  
VE3XYX – David Sparrow (VA3XY), of Burlington, ON, in July, 2011.  
VE3ZTF – Terry Keenan, of Port Hope, ON at age 52, on March 7, 2012.  
VE4DAV – David Boyd, of Dauphin, MB at age 43, on April 12, 2012.  
VE4QA – Charlie Greene, of Winnipeg, MB at age 84, on May 20, 2012.  
VE4STK – Peter Boslovitch, of Lockport, MB at age 65, on May 7, 2012.  
VE6AAT – Craig Bowling, of Edmonton, AB, on May 9, 2012.  
VE6CSI – Bill Herman, of Calgary, AB at age 68, on March 14, 2012.  
VE6JKV – Jim Venables, of Calgary, AB , at age 56, on April 2, 2012.  
VE6RAY – Ray Hoppe, of Edmonton, AB at age 71, on April 17, 2012.  
VE6TF\* – Len Tuckey, of Calgary, AB at age 88, on October 13, 2010.  
VE7DAM – Donald Cosby, of Victoria, BC, at age 86, on April 12, 2012.  
VE9EY – Bob Johnston, of Quispamsis, NB on May 10, 2012.

Reports on Silent Keys should be sent to RAC Headquarters at <rachq@rac.ca> and must include a letter or note of confirmation from a family member, or a copy of a newspaper obituary notice, or a copy of a death certificate, or a letter from the family lawyer or executor. Hearsay or rumours will not suffice to confirm a Silent Key.

Please include the Amateur's call sign, name, address, date of death and age. Amateurs and family members might wish to remember a Silent Key with a memorial contribution to the RAC Foundation c/o RAC. Your "contribution in memory" may be designated for Scholastic, Research, Community or Emergency grants, or you may let the Directors decide where it is most needed. Tax receipts will be provided by the Community Foundation of Ottawa.

Note: In the list of Silent Keys an \* indicates that the call sign has been reissued.



# RADIO AMATEURS OF CANADA / RADIO AMATEURS DU CANADA

## NATIONAL EXECUTIVE



**PRESIDENT**  
Geoff Bawden, VE4BAW  
85 Barrington Avenue  
Winnipeg, MB R2M 2A6  
Tel. 204-295-0714  
Email: ve4baw@rac.ca



**FIRST VICE-PRESIDENT**  
Ian MacFarquhar, VE9IM  
7 Charleston Court  
Rothesay, NB E2E 4W9  
Tel. 506-849-2099  
Email: ve9im@rac.ca



**CHIEF FIELD SERVICES OFFICER**  
Doug Mercer, VO1DTM  
Box 1042  
84 Main Road  
Goulds NL A1S 1H2  
Tel. 709-364-4741  
Email: vo1dtm@rac.ca



**ATLANTIC**  
Everett Price, VO1DK  
6 Virginia Road  
St John's, NL A1A 3A8  
Tel. 709-738-3508  
Email: vo1dk@rac.ca



**MIDWEST**  
Derek Hay, VE4HAY  
51 St. Hilaire Place  
Winnipeg MB R2J 4B5  
Tel. 204-257-1420  
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## DEPUTY DIRECTORS

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Sheldon Werner, VA2SH/VA6SH  
4225 Place Sainte-Helene  
Laval, QC H7W 1P3  
Tel. 450-973-3418  
Email: va2sh@rac.ca



**CHIEF INFORMATION AND TECHNOLOGY OFFICER**  
Paul Burggraaf, VO1PRB  
51 Greenspond Drive  
St. John's, NL A1E 5Z9  
Tel. 709-745-1999  
Email: vo1prb@rac.ca



**INTERNATIONAL AFFAIRS OFFICER**  
George Gorsline, VE3YV  
118 MacPherson Avenue  
Toronto, ON M5R 1W8  
Tel. 416-921-4214  
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**REGULATORY AFFAIRS OFFICER**  
Bill Gade, VE4WO  
Box 34—  
Durban, MB R0L 0P0  
Tel. 204-281-2768  
Email: regulatory@rac.ca



**ALBERTA/NWT/NU**  
J. T. (Mitch) Mitchell, VE6OH  
10438-139 Street  
Edmonton, AB T5N 2K5  
Tel. 780-446-8958  
Email: ve6oh@rac.ca



**ONTARIO NORTH/EAST**  
Bill Unger, VE3XT  
165 Ridgecrest Road  
Thunder Bay, ON P7B 7A1  
Tel. 807-344-1848  
Email: ve3xt@rac.ca



**RABC REPRESENTATIVE OFFICER**  
Norm Rashleigh, VE3LC  
1611 Wainfleet Street  
Orleans, ON K1C 3G3  
Tel. 613-837-1733  
Email: ve3lc@rac.ca



**ACTING CORPORATE SECRETARY**  
Linda Friars, VE9GLF  
35 Upper Quaco Road  
Baxters Corner, NB E2S 2S2  
Tel. 506-696-5279  
Email: ve9glf@nbnet.nb.ca



**HONOURARY LEGAL COUNSEL**  
Marcel D. Mongeon, VA3DDD  
301 Sunnymead Drive  
Ancaster, ON L9G 4L2  
Tel. 905-390-1818  
Email: va3ddd@rac.ca



**BRITISH COLUMBIA/YUKON**  
William (Bill) Gipps, VE7ISV/VE7XS  
9362 - 206A Street  
Langley, BC V1M 2W6  
Tel. 604-328-0111 Mobile  
Email: Bill.Gipps@ideasmc.com



**ONTARIO SOUTH**  
Jeffrey Stewart, VA3WXM  
5661 Bell Harbour Drive  
Mississauga, ON L5M 5K2  
Tel. 905-814-5882  
Email: va3wxm@sympatico.ca

## RAC SECTION MANAGERS

**ALBERTA**  
Garry Jacobs, VE6CIA  
45 Selkirk Blvd.  
Red Deer, AB T4N 0G4  
Tel. 403-343-1930  
Email: ve6cia@rac.ca

**BRITISH COLUMBIA/YUKON**  
Paul Giffin, VA7MPG  
1749 Tashtego Crescent  
Gabriola Island, BC V0R 1X5  
Tel. 250-247-7965  
Email: guppy1@shaw.ca

**MANITOBA**  
Jan Schippers, VE4JS  
202 Sadler Avenue  
Winnipeg, MB R2M 1P3  
Tel. 204-417-3518  
Email: ve4js@rac.ca

**MARITIMES**  
Vacant

**NEWFOUNDLAND-LABRADOR**  
Charles Marsh, VO1VZ  
1 Salerno Place  
Torbay, NL A1K 1A6  
Tel. 709-437-6157  
Cell 709-682-7728  
Email: vo1vz@rac.ca

For Section Reports  
see pages 57-62.

**ONTARIO**  
Allan Boyd, VE3AJB  
27 Red Mill Road, Box 208  
Little Current, ON P0P 1K0  
Tel. 705-368-2779  
Email: ve3ajb@vianet.ca

**QUEBEC**  
Gilles Larivière, VA2SGL  
219-35e Rue St-Prosper  
Beauce, QC G0M 1Y0  
Tel. 418-594-2277  
Email: va2sgl@rac.ca

**SASKATCHEWAN**  
Barry MacKenzie, VE5TRF  
1001 - 12th Avenue South West  
Moose Jaw, SK S6H 6N2  
Email: ve5trf@sasktel.net



# WELCOME TO THE WORLD OF AMATEUR RADIO CONTESTING!

“**This special issue of TCA is about Amateur Radio,  
not as a hobby or as a service, but as a sport...**”

– Mike Kelly, VE3FFK and Bob Kavanagh, VE3OSZ

Sport is an activity which attracts many people. Sport tests one's abilities: technical skills; stamina; intelligence; tactical ability; and competitiveness. This applies whether the sport is hockey, Scrabble tournaments, marathon running or cricket.

Amateur Radio contests are a form of Radiosport with all of the above challenges. In fact, Radiosport includes activities such as Amateur Radio Direction Finding and code sending/receiving competitions as well as what are usually known as contests. In this issue of *The Canadian Amateur* we present articles which describe some of the various Amateur Radio contests.

Some Amateurs don't like radio contests. Nevertheless, if you are one of those we invite you to read at least some of the articles in this issue and learn about what your Canadian fellow Amateurs do when they participate in contests. Perhaps you will be tempted to test yourself by entering a contest.

There are many different types of Amateur Radio contests. They range from relaxed local QSO parties to frenetic international events which attract thousands of participants from all over the world. In between these extremes there are specialist contests which are related to specific bands or modes, some of which are run for certain groups such as YLs, straight key users, QRP operators, and so on. Field days test ability to operate under emergency-type conditions. There are team competitions and there are sprint events which last only a few hours.

Contests bring together participants throughout the world leading to friendships and technical collaborations among operators in diverse countries. Amateur Radio can be a significant catalyst for the promotion of international goodwill.

Amateur Radio contesting has existed since at least the 1920s. The ARRL International Relay Party took place in 1927 and was succeeded by the ARRL International DX Contest in 1928. Contests have multiplied in number and nature since then. Now there are contests held every weekend throughout the world, with some sprints on occasional weeknights. The major Canadian contests are the RAC Canada Day Contest and the RAC Canada Winter Contest which have existed since 1979. Other Canadian contests are sponsored by provincial organizations and clubs. Our own contest specialist, Bob Nash, VE3KZ, keeps TCA readers informed about the contest scene through "The Sports Page" column (see page 53).

Participation in contests tests one's competence as an operator, the efficiency of antennas, the technical qualities of a station's

equipment, the ability to work in a team when a multi-operator station is formed, the knowledge of propagation for the bands in use, the willingness to commit significant periods of time, and so on. Although this may sound somewhat daunting, there is always a place for the beginner in any contest.

If you want to dip your toe into a contest for the first time, we suggest that you start with one of the RAC contests or a provincial QSO Party. These are open to both SSB and CW operators and the participants are glad to work beginners. While all serious contesters use computer logging these days, it is still possible for a beginner to use paper logging. It is slow, of course, but as a beginner you won't be likely to break any speed records in any case! In a contest one can either call CQ and wait for replies or one can look for others calling CQ and then call them. This is known as search-and-pounce. For a beginner, this is the best way to start.

There are some interesting contests to be explored. For example, the Commonwealth Contest (still referred to by its previous name: the BERU contest) is restricted to participation only by stations in the Commonwealth countries – no US stations to compete with! This is a CW contest and it attracts entrants from operators in lots of exotic countries around the world.

The WAE (Worked All Europe) contests are run each year by the German Amateur Radio national organization, DARC. There are three separate WAE contests: one each for SSB, CW and RTTY. A unique feature of these contests is that, in addition to sending and receiving the usual type of exchange, one may also send or receive (if one is in Germany) what are called QTCs. In effect a Canadian station may send to a German station a list of QSOs which have already been completed. This adds a degree of complexity and challenge for the operators. It's not for beginners!

The WPX contests run by *CQ Magazine* are different again. In these contests the multipliers are the prefixes of call signs. Another unusual contest is the Stew Perry Top Band Distance Challenge. This is a CW only contest and limited to the 160 metre band. For this contest the number of points one receives for a QSO is related to the distance between the two stations. These are all HF band activities. This is by no means the only part of the radio spectrum which hosts contests. There are contests in frequencies all the way up to light!

Six articles have been specially written for this issue of TCA. One of the most successful contesters in Canada, and indeed in the world, is John Sluymer, VE3EJ. Dave Dudley, VE3OI, has written a

comprehensive article about John and his exceptional station. Read this article and discover what is just about the ultimate in Amateur Radio contesting. While you may never come anywhere close to John in terms of his abilities and his station, this article will give you something to dream about.

Since the use of computers as a component of an Amateur station has become relatively commonplace, contests which use digital modes have become popular. As Ed Richardson, VE4EAR, points out in his article, there are ways of contesting other than CW or voice. Ed has contributed an excellent introduction to contesting using RTTY or PSK. After reading this article you may be inspired to explore contesting using ones and zeros.

The 160 metre band, otherwise known as Top Band, is different in many ways from the HF bands. Working DX requires special skills, propagation is sometimes a mystery, and antennas are key to success. Contesting on 160 metres is a unique experience. One of the most successful Canadian multi-op 160 metre contesting stations, VE2OJ, has been developed over a number of years by a group of operators from the Ottawa area. John Moffat, VE3NJ, and Rich Ferch, VE3KI, are two of these operators. They have written for TCA an account of how this station has evolved. Be sure to read this article and learn how contesting as a team on 160 metres can be very rewarding.

If you have participated in the RAC Canada Winter Contest or the RAC Canada Day Contest you have benefited from the expertise and hard work contributed by some Saskatchewan Amateurs. They are the volunteers who receive your contest logs, check them, and compile the results which ultimately appear in TCA. Checking contest logs is not a trivial matter. In their article Bart Richie, VE5CPU and Sam Ferris, VE5SF, have described how the RAC log checking process has evolved over time and some of the challenges which they must overcome while checking your logs.

Tom Haavisto, VE3CX, has written a very comprehensive three-part article on how to become a better contester. We are pleased to present Part 1 in this special issue. Tom is a very successful contester and his advice will be read with keen interest by all TCA readers who aspire to improve their scores.

Contesting on the bands above 30 MHz presents its own special challenges. TCA's VHF columnist, Dana Shtun, VE3DSS, has prepared an introduction to contesting above 50 MHz. Dana provides very useful information about contesting on bands all the way up to 10 GHz, including equipment required. If you are looking for new Amateur bands to explore, be sure to read Dana's article.

We hope that these six articles will interest you and, perhaps, inspire you to explore the world of Amateur Radio contesting.

TCA 

# AROUND THE CORNER...

People, Places, News and Events on the Canadian Amateur Radio Scene

The following news items have been compiled from Industry Canada, RAC bulletins and the RAC website at <www.rac.ca>. To subscribe to RAC bulletins visit <http://rac.eton.ca/racbullemail.htm>. Thanks to RAC Bulletin Editor – Vernon Ikeda, VE2MBS/VE2QQ.

## New Deputy Director Ontario North/East

I am pleased to announce that Glenn MacDonell, VE3XRA, of Ottawa has agreed to become the new Deputy Director for Radio Amateurs of Canada, Ontario North/East Region.

Glenn obtained his Basic Amateur certificate with honours in 2008 and obtained his Advanced Amateur certification in 2009. He has been interested in Amateur Radio since the late 1950s and participating in a couple of Field Days with the Kingston ARC in the early 1960s.

Once Glenn obtained his licence he joined several Ottawa clubs and started to take a leadership role in the Ottawa ARC. In 2011 he was elected its President, a position he continues to hold. He led the team that made presentations to the Ottawa city council regarding Amateur Radio exemptions from the municipal public consultation process for antenna systems which was completed successfully in March 2012 (see page 28).

Glenn enjoys operating on the bands from 160m to 70cm using various modes of communications. He participates in public service, assisting in the Canadian Ski Marathon in 2010, 2011 and 2012, and as net control on local HF and VHF (SSB) nets. He also dabbles on microwave bands from 2.4 GHz to 24 GHz during the ARRL VHF and microwave contests.

During his working career he was employed by the Federal Government in various departments as diverse as Environment and Foreign Affairs. He was also an advisor on industrial development and international cooperation related to Canada's Space Program (Space Station, RADARSAT-1 and RADARSAT-2, space science and satellite telecommunications).

Glenn will bring administration, innovation and management skills to RAC and I am looking forward to working with him as part of the Ontario North/East team.

Glenn can be reached at <ve3xra@rac.ca>.

*Bill Unger, VE3XT  
Ontario North/East Regional Director  
Radio Amateurs of Canada*

## Nouvel assistant-directeur pour Ontario nord/est

J'ai le plaisir d'annoncer que Glenn MacDonell, VE3XRA, d'Ottawa, a accepté de devenir le nouvel assistant-directeur de la région nord/est de l'Ontario pour Radio Amateurs du Canada.

Il a obtenu son certificat de base radio amateur avec honneur en 2008 et sa certification avancée en 2009. Il s'est intéressé à la radio amateur vers la fin des années 1950 et a participé à une couple de "Field Days" avec le Kingston ARC au début des années 1960.

Dès que Glenn a obtenu sa licence, il s'est joint à plusieurs clubs d'Ottawa et a commencé à jouer un rôle de meneur au Ottawa ARC.

En 2011 il a été élu président, un poste qu'il occupe toujours. Il a conduit l'équipe qui a fait des représentations au conseil de ville d'Ottawa en regard des exemptions pour les radioamateurs au sujet du processus de consultation publique sur les bâts d'antennes, qui a été complété avec succès en mars 2012 (voir la page 28).

Glenn aime opérer sur toutes les bandes de 160m à 70cm en utilisant divers modes de communication. Il participe à des activités de service public, en prêtant assistance au Marathon canadien de ski 2010, 2011 et 2012, et en tant que contrôleur de réseau sur les réseaux locaux HF et THF (BLU). Il expérimente aussi sur les bandes micro-ondes de 2.4 GHz à 24 GHz pendant les concours THF et micro-ondes de l'ARRL.

Pendant sa carrière au travail il a été à l'emploi du gouvernement fédéral dans divers départements aussi diversifiés que l'Environnement et les Affaires Étrangères. Il a aussi été conseiller sur le développement industriel et la coopération internationale en relation avec le programme spatial du Canada (station spatiale, RADARSAT-1 et RADARSAT-2, science spatiale et télécommunications par satellite).

Glenn apportera à RAC des compétences en administration, innovation et gérance, et je suis impatient de travailler avec lui en tant membre de l'équipe de Ontario nord/est.

Glenn peut être rejoint à <ve3xra@rac.ca>.

*Bill Unger, VE3XT  
Directeur régional Ontario nord/est  
Radio Amateurs du Canada*

(Traduction par Serge Langlois, VE2AWR)

## Distracted Driving in Ontario

On April 16, the Ontario Ministry of Transportation (MTO) posted a regulatory notice proposing a change to Ontario Regulation #366/09 ("Display Screens and Hand-Held Devices") that would Extend the current exemption for licensed Amateur Radio operators for an additional five years.

As you know, the exemption was due to expire at the end of this calendar year, and Radio Amateurs of Canada has been lobbying for a permanent exemption since this regulation was introduced back in 2009. We will be providing comments to the Road User Safety Branch of the MTO on this issue and will continue to press for a permanent exemption. That said, a 5-year extension is certainly welcome at this point but is not the ultimate resolution that we have been seeking.

The only other group to obtain an extension are commercial, public transit and public function drivers. You can view the notice in the provincial registry at:

<http://www.ontariocanada.com/registry/view.do?postingId=9043&language=en>

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RAC and the Distracted Driving Committee wishes to thank all organizations that supplied letters of support to assist us in obtaining this extension. This shows the support we have from many Ontario organizations.

*Bill Unger, VE3XT*

*RAC Ontario North/East Regional Director  
Chair – RAC Distracted Driving Committee*

## Loi sur les distractions en conduisant de l'Ontario

Le 16 avril le MTO a publié un avis réglementaire proposant un changement dans le règlement # 366/09 de l'Ontario (Écrans d'affichage et dispositifs tenus en mains) qui aurait pour effet de prolonger de cinq ans additionnels l'actuelle exemption pour les opérateurs radioamateurs licenciés.

Comme vous le savez, l'exemption devait expirer à la fin de cette année calendaire, et Radio Amateurs du Canada avait fait des pressions pour une exemption permanente depuis que cette réglementation avait été introduite en 2009.

Nous allons émettre des commentaires au Road User Safety Branch du MTO sur ce sujet et nous continuerons à réclamer une exemption permanente. Ceci étant dit, une prolongation de 5 ans est certainement la bienvenue à ce moment-ci, mais ce n'est pas le but ultime que nous recherchons.

Le seul autre groupe à avoir obtenu une prolongation est celui des conducteurs commerciaux, des transports publics et de la fonction publique.

Vous pouvez consulter l'avis sur le registre provincial à:

<http://www.ontariocanada.com/registry/view.do?postingId=9043&language=fr>

RAC et le comité sur les distractions en conduisant souhaite remercier toutes les organisations qui ont émis des lettres d'appui pour nous aider à obtenir cette prolongation. Ceci démontre le support que nous avons de la part de plusieurs organisations en Ontario.

*Bill Unger, VE3XT – Président du comité sur les distractions en conduisant de l'Ontario  
Directeur régional de Ontario nord/est – Radio Amateurs du Canada*

(Traduction par Serge Langlois, VE2AWR)







Geoff Bawden, VE4BAW  
85 Barrington Avenue  
Winnipeg, MB R2M 2A6  
Tel. 204-295-0714  
Email: ve4baw@rac.ca

I am pleased to welcome you to our first special issue of *The Canadian Amateur* on Contesting.

I write this Message shortly after returning from Dayton. As most of you know there are many Amateur Radio events that occur around the time of Hamvention including the Contest University run by "Big Gun" tester Tim Duffy, K3LR. I started attending the Contest University not because I am a "Big Gun" (small water pistol?), nor because I am a hard core tester, but because I enjoy our RAC contests (very much) and need all the technical help that I can get to improve my HF competency. Tim has a station that would put the CBC to shame. If you ever find yourself cruising down the Pennsylvania Turnpike, just inside Pennsylvania from Ohio, you will drive past an antenna farm of awesome proportions; visit <[www.k3lr.com](http://www.k3lr.com)> for details of this 13 tower "Big Gun" station.

But don't think that you need a "Big Gun" station to enter contests. You need skills, ethics, an ability to stay awake and a desire to beat others or to improve yourself. This special Contesting issue of TCA will definitely provide you with some pointers that will help to make you a better Tester. I hope you enjoy it. I also hope to hear you on the air on July 1 or on that special Winter Day when RAC runs our first rate contests (see the article on page 22). Get on the air is for these and other contests no matter how big or small your station. Have fun! I am happy to give you a bonus and maybe a multiplier as VE4RAC.

## UPDATE ON 60 METRES

As you know in late 2009, Jim Fisher, VE1JF, Chair of the RAC HF Band Planning Committee (as it was then called) and his committee proposed that Canadian Amateurs have channelized access to 60 metres; five of these channels to be consistent with the then US allocation but with two distinct Canadian allocations. This proposal was placed before the RAC Board and approved as policy.

In early 2010, RAC sent a letter to Industry Canada making the request and at the subsequent meeting of the Canadian Amateur Radio Board (CARAB) we reiterated the request. In 2012, Industry Canada entered into formal public consultation for six channels. At press time, the consultation is closed and we are waiting for Industry Canada to complete the process and we look forward to Amateur access to 60 metres (see page 40 for more information).

# A MESSAGE FROM THE PRESIDENT UN MESSAGE DU PRÉSIDENT

Il me fait plaisir de vous présenter notre premier numéro spécial de « The Canadian Amateur » sur les concours.

J'ai écrit le présent message dès mon retour de Dayton. La plupart d'entre vous savent qu'il y a plusieurs événements radioamateurs qui ont lieu à peu près en même temps que le Hamvention dont le « Contest University » dirigé par le concurrent "Big Gun" Tim Duffy, K3LR. J'ai commencé à suivre le "Contest University" non parce que je suis un "Big Gun" (plutôt un petit pistolet à l'eau?), ou un concurrent super déterminé, mais parce que j'aime beaucoup nos concours à RAC et que je sens le besoin de recourir à tout le soutien technique possible pour améliorer ma compétence en HF. Tim possède une station qui pourrait forcer CBC à faire acte d'humilité. Si vous avez la chance de d'emprunter le Pennsylvania Turnpike, à la frontière de la Pennsylvanie et de l'Ohio, vous verrez en passant une antenne aux proportions gigantesque installée dans un vaste champ. Allez à <[www.k3lr.com](http://www.k3lr.com)> pour connaître les détails à propos de la station "Big Gun" à 13 tours.

Mais ne croyez pas qu'il vous faille avoir une station "Big Gun" pour participer aux concours. Il vous suffira d'être compétent, de respecter les règles d'éthique, de demeurer éveillé, d'avoir le désir de gagner ou de simplement souhaiter vous améliorer. Le but de ce concours spécial pour TCA est de vous faire acquérir des points qui vous aideront à devenir un meilleur concurrent. J'espère que vous aimerez l'expérience. Je souhaite aussi vous entendre sur les ondes le 1<sup>er</sup> juillet ou durant le Winter Day alors que RAC tiendra ses plus importants concours (voir l'article à la page 22). Être présent sur les ondes durant les concours n'est pas une question de petite ou de grosse station. Ayez du plaisir! Je serai heureux de vous faire avoir un boni ou même un « multiplicateur » de VE4RAC.

## DERNIÈRES NOUVELLES À PROPOS DU 60 MÈTRES

Comme vous le savez, vers la fin de 2009, Jim Fisher, VE1JF, président du comité de planification des bandes HF de RAC (ainsi nommé à ce moment là) et son comité ont proposé que les amateurs canadiens aient un accès par canaux du 60 mètres; cinq de ces canaux seraient compatibles à ceux qui étaient alors alloués aux Etats-Unis, mais au Canada selon deux allocations distinctives. Cette proposition fut amenée devant le Comité d'administration de RAC et approuvée en tant que politique.

Au début de 2010, RAC a envoyé une lettre de demande à cet effet à Industrie Canada. À la réunion subséquente du CARAB (Canadian Amateur Radio Board) la demande fut réitérée. En 2012, Industrie Canada entama une consultation publique formelle pour six canaux. Au moment de mettre sous presse, la consultation était terminée. Nous attendons maintenant qu'Industrie Canada complète le processus afin que bientôt soit permise l'accession au 60 mètres (voir page 40 pour plus d'informations).

## DERNIÈRES NOUVELLES À PROPOS DE LA « LOI SUR LA CONDUITE INATTENTIVE »

En octobre 2011, notre groupe chargé d'analyser la « loi sur la conduite inattentive » en Ontario – constitué de son président, Bill Unger, VE3XT, du directeur du nord-est ontarien, Jeff Stewart, VA3WXM, du directeur du sud de l'Ontario et ancien conseiller juridique de RAC Steve Pengelly, VE3STB – a rencontré les représentants officiels du ministère du Transport de l'Ontario. Le gouvernement de l'Ontario, qui s'était déjà engagé à fournir une réponse au début de 2012, annonçait en avril 2012

## UPDATE ON DISTRACTED DRIVING

In October 2011, our Ontario Distracted Driving Task Force – consisting of Chair Bill Unger, VE3XT, RAC Ontario North/East Director, Jeff Stewart, VA3WXM, RAC Ontario South Director and former RAC Honorary Legal Council Steve Pengelly, VE3STB – met with officials from the Ontario Ministry of Transportation. The Government of Ontario had previously committed to responding to RAC by early 2012 and in April 2012 it announced that there would be a further five-year exemption for Amateur Radio operators. As Bill said in a RAC Bulletin this five-year exemption is certainly welcome but is not the ultimate resolution that we have been seeking. We will continue working to have a permanent exemption for Ontario.

## AUDIT AND OPERATING SURPLUS IN 2011

Our auditors have completed their audit and we have reviewed their draft as of the writing of this column. I am pleased to announce that, as budgeted and as promised, we posted a surplus in 2011. This is the first surplus in a very long time. You will recall that I had told the Board and the membership during 2010 that RAC would likely fail no later than late 2011 unless we changed our management practices. As of December 2011 we still had negative equity but that will change in 2012 and may have already occurred. We are on track to post a surplus for 2012.

So how did it happen? Hard work by people performing tough jobs including: Margaret Tidman, VA3VXN, RAC Treasurer in 2010 and 2011, demonstrated great strength of character and determined work on a tough file; Derek Hay, VE4HAY, our Midwest Director who serves as Chair of the Administrative and Finance Committee – he and his committee went over the books monthly to offer an analysis from an entrepreneurial perspective; and thanks also to our Board and Executive that stuck to it. No expenses were paid. Volunteers provided “hidden subsidies” to the corporation, providing their resources of time and cash. For example, Jim Hay, VE2VE, provided (and continues to provide) hundreds of hours of technical skills; Bill Unger, VE3XT, flew from Thunder Bay to Toronto on his own dime for that very important meeting with Ontario officials to discuss the Distracted Driving legislation. Programs such as The Canadian Amateur were reviewed to see where we could make efficiencies. Every expense was debated and priorities established. This toughness of analysis will continue.

## DAYTON 2012

After a successful 2011 appearance at Dayton, RAC returned to Hamvention 2012. Volunteers from across Canada staffed the booth and spoke with Amateurs from around the world. Memberships were sold and old friends revisited and new friends made. RAC Directors and Executive were on hand to answer questions from members and passersby (and there were both beefs and bouquets). Informal meetings among national societies occurred over the three days. The Radio Society of Great Britain, the International Amateur Radio Union, the Deutscher Amateur Radio Club (Germany), the Japan Radio Relay League, the Qatar Amateur Radio Society and the American Radio Relay League were present and it was both a pleasure and an opportunity to chat with their representatives.

We will do a “lessons learned” for our return in 2013 and see if we can “up our game”. Suggestions are welcomed!

que les opérateurs radioamateurs bénéficieraient d'une exemption supplémentaire de cinq ans. Comme le disait Bill dans un bulletin de RAC, cette exemption de cinq ans est certainement la bienvenue mais là n'est pas la décision finale que nous recherchons. Nous poursuivrons notre travail en vue d'une exemption permanente pour l'Ontario.

## VÉRIFICATION ET SURPLUS OPÉRATIONNELS EN 2011

Nos vérificateurs ont complété leur travail de vérification, Nous en avons revu l'ébauche comme le montre les données. J'ai le plaisir de vous annoncer que, tel que promis et budgété, nous avons un surplus en 2011. Ceci n'est pas arrivé depuis très longtemps. Vous vous rappellerez que j'avais promis au Conseil d'administration et à nos membres en 2010 que RAC se devait de réussir son équilibre budgétaire au plus tard à l'exercice 2011 sans quoi il lui faudrait changer ses pratiques administratives. En décembre 2011, il n'était pas encore possible d'afficher un bilan positif, mais cela changera en 2012. C'est peut-être déjà le cas puisque nous nous dirigeons vers un surplus en 2012.

Et comment cela s'est-il produit? Travail acharné de personnes affectées à des tâches difficiles. À cet égard, il faut nommer Margaret Tidman, VA3VXN, trésorière de RAC en 2010 et 2011 qui a fait preuve d'une grande force de caractère et de détermination au travail sur un dossier difficile; Derek Hay, VE4HAY et notre directeur de l'ouest central (Prairies) qui a rempli la fonction de président du comité de l'administration et des finances. Avec son comité il a revu les rapports mensuels dans une perspective d'analyse entrepreneuriale. Merci aussi à notre Conseil d'administration et à notre Exécutif qui s'y sont résolument investis. Aucune dépense n'a été payée. Les bénévoles procurent des “retombées cachées” pour la corporation par leur investissement en temps et en espèces. Par exemple, Jim Hay, VE2VE, a fourni (et continue de fournir) des centaines d'heures en expertises techniques; Bill Unger, VE3XT, s'est déplacé en avion de Thunder Bay à Toronto à ses propres frais afin d'assister à une importante réunion avec des représentants officiels de l'Ontario à propos de la législation sur la conduite inattentive. Des programmes comme celui de TCA (The Canadian Amateur) ont été revus dans le but d'y découvrir des moyens d'épargner. Chaque dépense a fait l'objet de discussions et des priorités ont été établies. Cette analyse rigoureuse se poursuit.

## DAYTON 2012

Après notre participation réussie à Dayton en 2011, RAC est retourné au Hamvention en 2012. Des bénévoles de tout le Canada ont travaillé bénévolement au kiosque et se sont entretenus avec des amateurs venant de partout au monde. Des cartes ont été vendues, de vieux amis sont revenus et des amitiés nouvelles ont vu le jour. Le Conseil d'administration de RAC et l'Exécutif étaient disponibles pour répondre aux questions des membres et des visiteurs de toute condition. Des réunions informelles de nos sociétés nationales eurent lieu durant ces trois jours. La Société radioamateur de Grand Bretagne, l'Union internationale radioamateur (UIRA), le Club radioamateur Deutscher d'Allemagne, la Relay League du Japon, la Société radioamateur du Qatar et la Radio Relay League des États-Unis étaient présents. Ce fut une occasion tout autant qu'un plaisir d'échanger avec leurs représentants.

Nous avons appris beaucoup en prévision de notre retour en 2013 et vu comment nous pourrions améliorer notre participation. Vos suggestions sont les bienvenues!



## RAC ANNUAL GENERAL MEETING

I am looking forward to meeting you in Montreal at the upcoming RAC Annual General Meeting on the weekend of September 22-23. It is a great city and the Montreal Amateur Radio Club will be hosting the AGM as part of their 80th Anniversary Celebration. There will be a great deal of fun and this is your opportunity to put me on the spot. Please join us in "la belle province." Please see the Notice of the AGM on page 10 for more information.

## RAC CONVENTION

Our man in Alberta, Mitch Mitchell, VE6OH (RAC Director for Alberta, the Northwest Territories and Nunavut) and a crew from out west have been working on the RAC Convention which will be held in Edmonton on August 10, 11 and 12. It will be a great technical event and will give you an opportunity to rub elbows with many RAC volunteers including Directors and Executive members. I look forward to seeing you there. For complete details on the RAC Convention please see page 27.

## ENHANCED AND NEW INSURANCE

Johnson is now offering a broad range of insurance for our members ranging from travel to property. You will receive (or will have received) a letter from me telling you how you can access these services. This is an exciting offer. (Please be assured that the insurance company will not be given your address or any personal information!).

## RAC RECEIVES A GENEROUS GIFT FROM THE SAINT LAWRENCE VALLEY REPEATER COUNCIL

I want to thank Graham Ide, VE3BYT (Chairman) and the Saint Lawrence Valley Repeater Council ([www.slvr.org](http://www.slvr.org)) for their generous gift to RAC. I was motoring back from Dayton when the good news reached me that the Council had made a donation of \$1,000 to RAC (see page 55). Many thanks, and my hats off to this group who have spent over 30 years working along the Saint Lawrence and across the border. RAC welcomes donations. Please don't hesitate to contact us. I will be more than happy to chat with you.

## NEW DEPUTY DIRECTORS

There is more good news... We have two new Deputy Directors. The position of Deputy Director was established at the 2011 RAC Annual General Meeting to support the RAC Directors, to provide additional regional representation, to act when the Directors are away and to add depth to the organization overall. I am pleased that Glenn MacDonell, VE3XRA, located in Ottawa, is the first Deputy Director for the North/East Ontario Region in support of RAC Director Bill Unger, VE3XT. I am also pleased to announce that Allan Grant, VA4AJG, is the new Deputy Director for the Midwest Region in support of RAC Director Derek Hay, VE4HAY.

That's it for now. I look forward to seeing you in Edmonton, Montreal or Dayton or contacting you by voice – RAC Directors and Executive have been doing outreach through IRLP nets and Skype.

I hope you are having a great summer!

– 73, Geoff, VE4BAW



## L'ASSEMBLÉE GÉNÉRALE ANNUELLE DES MEMBRES DE RAC

Je projette vous rencontrer à l'assemblée générale annuelle de RAC les 22 et 23 septembre à Montréal. Montréal est une grande ville et le Club radioamateur de Montréal, qui célébrera son 80ième anniversaire, sera l'hôte de l'AGM. Il y aura beaucoup de points intéressants et se sera pour vous l'occasion de me mettre au défi! S.V.P., venez nous voir dans la « Belle province » Voyez la notice sur l'AGM à la page 11 pour plus d'informations.

## CONVENTION DE RAC

Notre représentant en Alberta, Mitch Mitchell, VE6OH (directeur de l'Alberta, des Territoires du Nord-Ouest et du Nunavut) et un groupe de l'ouest périphérique ont travaillé à la préparation d'une convention de RAC qui doit avoir lieu à Edmonton les 10, 11 et 12 août. Ce sera une grande rencontre technique qui vous permettra de côtoyer plusieurs volontaires de RAC dont des directeurs et des membres de l'Exécutif. Je souhaite vous y rencontrer. Pour tous les détails entourant la convention de RAC, veuillez aller à la page 27.

## BONIFICATION ET NOUVELLE ASSURANCE

Johnson offre maintenant un large éventail d'assurances à nos membres concernant les voyages et la propriété. Vous recevrez (ou avez déjà reçu) une lettre de moi vous indiquant comment vous pouvez accéder à ces services. C'est une offre emballante. (Veuillez vous assurer que la compagnie ne donne pas votre adresse ou tout autre information personnelle!).

## RAC REÇOIT UN DON GÉNÉREUX DE LA PART DU « SAINT LAWRENCE VALLEY REPEATER COUNCIL »

Je tiens à remercier Graham Ide, VE2PYT (président) et le Saint Lawrence Valley Repeater Council ([www.slvr.org](http://www.slvr.org)) pour leur don généreux à RAC. Je revenais de Dayton quand j'ai appris la bonne nouvelle à l'effet que le « Council » avait fait un don de 1,000 \$ à RAC (voir page 55). Mille mercis et chapeau bas à ce groupe qui travaille depuis plus de 30 ans le long du St-Laurent et aux environs de la frontière. RAC accepte tous les dons. S.V.P. n'hésitez pas à communiquer avec nous. Je serai plus qu'heureux d'échanger avec vous.

## NOUVEAUX ASSISTANTS DIRECTEURS

Il y a d'autres bonnes nouvelles... Nous avons maintenant deux nouveaux assistants directeurs. Le poste d'assistant directeur a été créé lors de l'assemblée générale de RAC en 2011 pour assister les directeurs de RAC, améliorer la représentation régionale, remplacer le directeur quand celui-ci est absent et mieux « asseoir » l'ensemble de notre organisation. Je suis heureux que Glenn MacDonell, VE3XRA, demeurant à Ottawa, soit le premier assistant directeur de la région du nord-est de l'Ontario à venir soutenir le travail du directeur Bill Unger, VE3XT. Je suis également heureux de vous annoncer que Allan Grant, VA4AJG, est le nouvel assistant directeur pour la région des Prairies en soutien au directeur Derek Hay, VE4HAY.

Voilà pour maintenant. Je souhaite vous rencontrer à Edmonton, Montréal ou Dayton ou vous parler sur les ondes ou autrement – Les directeurs de RAC et l'Exécutif utilisent les réseaux IRLP et Skype pour vous joindre. J'espère que votre été sera des plus agréables!

– 73, Geoff, VE4BAW



Traduction par Claude Lalande, VE2LCF. Merci Claude!

## — NOTICE —

### RADIO AMATEURS OF CANADA INC.

The Radio Amateurs of Canada is pleased to hold its Annual General Meeting (AGM) in Montreal, Quebec. It will be hosted by the Montreal Amateur Radio Club (VE2ARC) which is celebrating its 80th anniversary this year.

The AGM event will be held in conjunction with the second annual Radio Talk conference which is being held at the same location. All RAC members are encouraged to attend the Annual General Meeting.

**Date:** Saturday, September 22, 2012

**Place:** The AGM will be held in the St. Ignatius of Loyola Parish Church which is located at 4455 West Broadway, H4B 2A7 (the corner of West Broadway and Terrebonne) in the Notre-Dame-de-Grâce (NDG) of District of Montreal.

**Time:** 4 pm

Agenda items will include:

- Report of the President
- Review of the 2011 finances
- Appointment of auditors for 2012
- Question and Answer period



This is your opportunity to hear what your representatives have been doing over the past year, to raise questions, and to make suggestions about how RAC is managed and where it is going in the future.

The meeting will be attended by some of the members of the RAC Board of Directors and Executive and is open to all RAC members.

For more information on the Montreal ARC please see the article below or visit the Radio Talk website at <[www.radiotalk.ca](http://www.radiotalk.ca)>.

### MONTREAL ARC 80TH ANNIVERSARY / RADIO TALK 2012

The Montreal Amateur Radio Club (VE2ARC) is celebrating their 80th anniversary this year and will be presenting the second annual Radio Talk conference.

In addition, the Montreal ARC is pleased to host the Annual General Meeting of the Radio Amateurs of Canada which will be held in conjunction with Radio Talk 2012 at the same location.

Radio Talk is an initiative of the MARC's sister club, The West Island Amateur Radio Club (VE2CWI) and is being co-hosted this year by both clubs.

RadioTalk is a day of presentations and displays on topics of interest to the Amateur Radio community. Last year's conference was enthusiastically received by local Amateurs and this year's event promises to be even better.

The Radio Talk conference will begin on Saturday morning at 9 am and will be followed by the RAC AGM in the afternoon and the MARC 80th anniversary celebration that same evening.

This year's event will be held at the St. Ignatius of Loyola Parish Church which is located at 4455 West Broadway, H4B 2A7 (the corner of West Broadway and Terrebonne) in the Notre-Dame-de-Grâce (NDG) District of Montreal.

Interested parties can follow along and receive regular updates by pointing their web browsers to <[www.radiotalk.ca](http://www.radiotalk.ca)>.



## HELP WANTED

### RAC Public Information Officer

The Radio Amateurs of Canada is seeking the services of a Public Information Officer (PIO). This is a voluntary position operating at the national level. Candidates with the following knowledge, skills and abilities will be considered:

- Knowledge of the principles and methods of planning and conducting a public information program.
- Knowledge of the media used in public relations.
- Ability to plan and conduct a public information program.
- Ability to write and edit various forms of promotional and informational material and to develop and/or select other types of media such as films and exhibits.
- Ability to discern and collect newsworthy materials, to analyze and evaluate public relations media and methods, and to judge probable public reaction.
- Ability to speak effectively in public.
- Ability to work effectively with RAC Affiliated Clubs and the RAC national Bulletin Service.

### Treasurer

The Radio Amateurs of Canada is looking for a Treasurer who is a Chartered Accountant, Certified General Accountant or Certified Management Accountant. A certification in Amateur Radio is optional. As RAC's financial advisor, we need someone to provide direction on the accounts and act as liaison with the external auditors. Experience with QuickBooks would be an asset.

Radio Amateurs of Canada is a non-profit corporation providing services to members and has a mandate to enhance Amateur Radio in Canada. 2011 finished with an operating surplus but a slight structural deficit which is on track to be redressed in 2012.

Please speak with your friends, there must be a RAC member who either qualifies or can approach someone for this volunteer position. Certification in Amateur Radio is not a requirement for this position. Interested parties please contact the RAC Corporate Secretary at <[ve9glf@nbnet.nb.ca](mailto:ve9glf@nbnet.nb.ca)>.

*Linda Friars, VE9GLF*  
RAC Acting Corporate Secretary



## FEEDBACK (OUR READERS WRITE)

### Earle Smith, VE6NM – SK

The passing of Earle Smith, VE6NM, is an unhappy loss to Amateur Radio in Canada. He was a good friend and a tireless supporter for the many people working to sustain our exciting hobby.

I was fortunate to have Earle alongside during the years we shared our time supporting CARF and our endeavours to bring about the merger with CRRL to build the long sought after unity in the creation of Radio Amateurs of Canada and latterly, the formation of the Canadian Amateur Radio Advisory Board with Industry Canada.

A good man, using his happy attitude and skills to keep us all together. He will surely be missed.

*J. F. (Hoppy) Hopwood, VE7RD  
North Vancouver, British Columbia  
Past President of RAC*

### Radio Verified Reception Stamps

I have been doing a bit of research on the history of Radio Verified Reception Stamps popular from about 1925 to 1932. Two companies in Chicago (the EKKO Company and Bryant Company) provided albums for radio listeners to collect adhesive verification stamps as did a number of independent broadcasters.

These stamps were a popular fad in that era especially with young listeners. Sales of the stamps extended into the 1950s despite the two companies having folded their projects.

Listeners received stamps verifying they had heard a radio broadcast from near and far-off radio stations. The stamps were quite attractive. There have been several recent publications examining these stamps. I have submitted an article for publication about the experience of a young lad in Toronto in 1925 who collected quite a few of the stamps.

I am wondering if any of your members would have examples of such stamps (that they would be willing to depart with) or the documents and albums sold by the EKKO or the Bryant companies in Chicago.

I am particularly interested in Canadian stamps or documents related to the topic.

I am not a dealer and have nothing to sell or trade, but I do have a decent listing of the radio stations involved in Canada.

The projects also extended across the USA, Cuba, Mexico and a few other places.

*Clayton Rubec  
Ottawa, Ontario*



## — AVIS —

### RADIO AMATEURS DU CANADA INC.

Radio Amateurs du Canada est heureux de tenir son Assemblée générale annuelle (AGM) à Montréal, au Québec. Le Club Radio Amateur de Montréal (VE2ARC), qui célèbre son 80e anniversaire cette année, se charge de l'accueil.

L'AGM aura lieu en même temps et au même endroit que la deuxième conférence annuelle « Radio Talk ». Tous les membres de RAC sont chaleureusement invités à participer à l'Assemblée générale annuelle.

**Date :** Samedi 22 septembre 2012

**Endroit :** L'AGM aura lieu à l'église de la paroisse St-Ignace-de-Loyola située au 4455 Broadway ouest, H4B 2A7 (coin Broadway ouest et Terrebonne) dans le district Notre-Dame-de-Grâce (NDG), à Montréal.

**Heure :** 16h00

L'agenda comprend :

- le rapport du président
- le rapport financier 2011
- la nomination des vérificateurs pour 2012
- une période de questions et de réponses



Voici une occasion qui vous permettra d'apprendre ce que vos représentants ont accompli l'an dernier, de poser des questions et de faire des suggestions à propos de la gestion et de l'avenir de RAC.

Plusieurs membres du Conseil d'administration (Bureau des directeurs) et de l'Exécutif de RAC seront présents. Tous les membres de RAC peuvent participer à l'assemblée.

Pour plus d'informations sur le Club Radio Amateur de Montréal, lire l'article ci-dessous ou visitez le site Radio Talk à <[www.radiotalk.ca](http://www.radiotalk.ca)>.

## 80E ANNIVERSAIRE DU CLUB RADIO AMATEUR DE MONTREAL (CRAM / MARC) / RADIO TALK 2012

Le Club Radio Amateur de Montréal (VE2ARC) célèbre son 80e anniversaire cette année et présentera la deuxième conférence annuelle « Radio Talk ».

De plus, le Club Radio Amateur de Montréal est heureux d'accueillir l'Assemblée générale annuelle de Radio Amateurs du Canada qui aura lieu en même temps et au même endroit que le « Radio Talk 2012 ».



« Radio Talk » est une activité du club « frère » du CRAM / MARC, le Club Radio Amateur du West Island (VE2CWI). Les deux clubs se partagent l'accueil cette année.

« Radio Talk » propose une journée de présentations et d'expositions sur des sujets intéressant la communauté radioamateur. La conférence de l'année dernière suscita de l'enthousiasme chez les amateurs locaux. Et ça pourrait être encore mieux cette année!

La conférence « Radio Talk » débutera le dimanche matin vers 9h00 et sera suivie de l'AGM en après-midi. Le soir venu, l'AGM cèdera sa place à la célébration du 80e anniversaire du CRAM / MARC.

L'événement de cette année se tiendra à l'église de la paroisse St-Ignace-de-Loyola située au 4455 Broadway ouest, H4B 2A7 (coin Broadway ouest et Terrebonne) dans le district de Notre-Dame-de-Grâce (NDG) à Montréal.

Les personnes intéressées peuvent suivre le déroulement de l'organisation et prendre connaissance des dernières informations en allant sur le site web <[www.radiotalk.ca](http://www.radiotalk.ca)>.

*Traduction par Claude Lalande, VE2LCF. Merci Claude!*

# SIX METRES AND DOWN

## INTRODUCTION TO CONTESTING ABOVE 50 MHz

I'm sure everyone who reads TCA has participated in a contest at one time or another. Whether it's a local provincial contest like the Ontario QSO Party or the RAC Winter Contest or perhaps some of the major HF events like the CQ Worldwide

Well, did you know that there are major contests on the bands above 30 MHz as well? Yes VHF/UHF and Microwave contesting is an interesting part of the hobby and one that has held my interest over the last 42 years.

There are four basic contests of interest to Canadians:

- the ARRL June VHF QSO Party in June
- the CQ Worldwide VHF Contest in July
- the ARRL UHF Contest in August
- the ARRL September VHF QSO Party
- the ARRL VHF Sweepstakes in January

In addition to these full-blown weekend events there are a series of mini contests that are known as Sprints. These are evening events for the most part and run from 7 pm to 11 pm local time.

One evening during the week is set aside for activity. The pattern follows the old VHF "Activity Night" with Mondays for 144 MHz, Tuesdays for 222 MHz and with Wednesdays for 432 MHz. Microwave covers 903 MHz and up, and six metres is held on Saturday during the day to take advantage of any Sporadic E.

Currently, there are Spring and Fall Sprints, hosted by various groups such as the Southeastern VHF Group and the Central States VHF Group.

The dates and times can be found on the Internet as well as all rules and logging requirements.

Other activities include EME contesting (moonbounce) and digital contesting during meteor showers so there is always something going on!

### THE CONTEST SITE

Can't operate from home due to space limitations, tower issues etc? Well that won't stop you from VHFing!

The old saying in real estate works well on VHF: location location location.

Having a high vantage point for contesting is a big plus if you want to really dig into it.

Whether it's a high hill or a mountain top you can get out further and easier the higher you are. So scout out local hilltops – take along an SSB mobile VHF radio and check out the propagation.

### ANTENNAS

Another critical piece of the contest puzzle is the antenna. You can never have enough antenna on VHF. On six metres the minimum is 4 elements and the maximum is whatever you can hoist and rotate – keeping in mind that sometimes a sharp long yagi can be an impediment as you have to constantly swing the antenna to find and work people. A happy compromise is a single 5-element yagi like that made by M<sup>2</sup> (M squared) Antenna Systems. On the higher bands, a 12 to 14 foot yagi will work out well on 144, 222 and 432. On 903 and 1296, loop yagis are easy to construct and lug around. Coax is critical too; 9913 type is the minimum, LMR 400 is better and Helix is best.

### Suppliers include:

M Squared: 6 metres through microwave; proven designs

Directive Systems: 6 metres through microwave (loop yagis)

Texas Antennas (LFA): LFA design yagis for 6 metres and up

Maple Leaf Communications: 50 MHz yagis

### RADIOS

The technology is changing so fast it's hard to keep up! What was good five years ago is not necessarily the best today!

However, if you are just getting started look for a good HF/50 MHz radio to get going – lots of choices such as Icom and Kenwood abound.



Dana Shitun, VE3DSS/VE3KU  
14 Ashwood Crescent  
Toronto, ON M9A 1Z3  
E: ve3dss@rac.ca /  
ve3ku@acanac.net  
W: www.qsl.net/ve3dss

For the HF DXer, the K3 will give you both HF/50 MHz and 144 MHz all in one box that is easily transported and set up. If you are into computers there is nothing better than the Software Defined Radios like the Flex line.

Transverters are still the way to go above 50 MHz although this is changing. To get on 222 MHz you still have to go the transverter route and above 450 MHz this certainly is the only way. A transverter is a transmit and receive converter. It takes a 28 MHz signal and puts it up on the higher bands and on receive takes it down to 28 MHz (or 50 MHz depending on the design).

### Suppliers

Kenwood, Icom, Yaesu

Elecraft (K3 line, transverters, and more)

FlexRadio Systems: SDR's FLEX 1500, 3000, 5000; 50 MHz and up

Down East Microwave: Transverters, Preamps, PA's

SSB Electronic: Premium transverters for VHF and Microwave (German Quality)

### AMPLIFIERS

For a serious contest run you have to have power on transmit. Today, getting 300 watts is easy for the bands below 450 MHz and that will really help you being heard. Of course, above 450 MHz getting power is still a challenge, but anything above 30 watts will be good for contesting.

Solid state high power PA's are becoming more and more common, and designs using single devices are now available that will run a kW so this is really going to help in contests, especially if you are operating portable!

### ACCESSORIES

You will need, rotors, towers, food, computers and a good generator for serious portable operating.

*Dana, VE3DSS/VE3KU, working on rotors.*



Most of us have operated Field Day and this is the type of operation that occurs on VHF when portable as well. Multi-op competitions are fun with a bunch of people operating each of the bands 50 MHz, 144 MHz, 222 MHz, 432 MHz, 903 MHz, 1296 MHz, 2304 MHz, 3456 MHz, 5763 MHz and 10 GHz for example.

A big operation will require planning, logistics, many towers, rotors, tents, trucks or RV's – for luxury operating!

## ROVERING

Want to operate from more than one hill? Don't want to stay home, then go rover. This type of operation is similar to portable operating, but often the gear and antennas are mounted on a vehicle and literally move from site to site, operating from more than one hill or grid square.



The above photo shows the VE3GMA Field Day operation, with 50 MHz, 144 MHz, 432 MHz and satellite operation. You can see how the towers are arranged.



This next shot is of the 144 MHz / 50 MHz operating position with John, VE3CVX, at the mike circa 2006. Simple yet effective.

Finally, once you get bitten by the bug, you begin to set records and break records. This leads to such operations as VE3ONT from the Algonquin Space Complex (see photo in right column) – big time contesting for sure.

So if you are looking for a challenge, try contesting on the bands 50 MHz and up!

Dana, VE3KU/VE3DSS



## HELP WANTED

### IT Volunteers Wanted

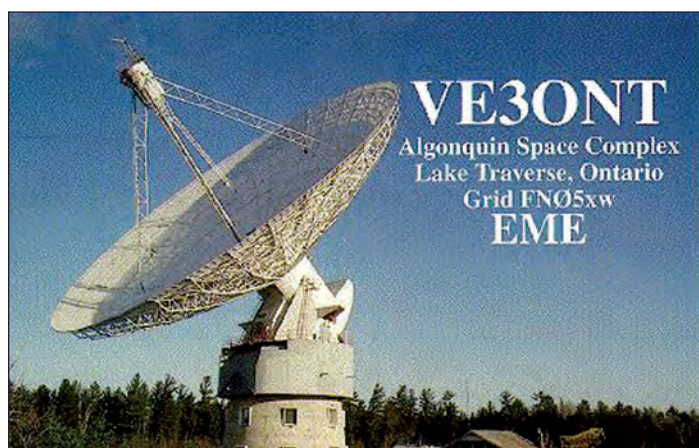
RAC is looking for IT volunteers to be part of the website restructuring, development and management team.

Experience with web design and programmers with a coding knowledge of PHP 5.3.6, MySQL, IIS and Apache would be an asset.

The potential for other development platforms and recommendations will form part of the scope for this website enhancement and redesign. This will initially include daily support to the RAC HQ staff on the existing website and MySQL databases.

Interested parties please contact the RAC Corporate Secretary at <ve9glf@nbnet.nb.ca>.

Linda Friars, VE9GLF – RAC Acting Corporate Secretary



### VE3RRD QRP STATION



Al Duncan, VE3RRD, sent in the above photo of his home QRP station. "It consists of a Racal RA6778C receiver and Rockmite 40m transmitter (on top of the receiver). The top of the Racal RX also makes a convenient operating desk. TX power is about 700mw on either 7030 or 7040 kHz, and full break-in is accomplished by using separate receive and transmit antennas. The Racal also offers general coverage receive from 15 kHz to 30 MHz but is a bit of a pain to use for portable operation." Thanks Al! Send your photos to TCA at <tcamag@yahoo.ca>.



# JOHN SLUYMER, VE3EJ AND HIS CONTESTING STATION

Dave Dudley, VE3OI

Anyone who has ventured into contests, even casually or who has chased DX in pileups will undoubtedly have heard the familiar phonetics: "ECHO JAPAN" on the bands. If you are an overseas DXer, I am sure you know VE3EJ as a consistent Canadian "beacon" on all bands. John Sluymer, VE3EJ, is probably Canada's most accomplished, all-round contest operator, having built a world class contest station at his home, and having built himself into a world class contest operator.

## EARLY BEGINNINGS

John's Amateur Radio career began in 1972 near Queenston, Ontario, a little downriver from Niagara Falls. Licensed as VE3AKG, he was just finishing high school. John's parents didn't realize this at the time, but they had picked out a great radio location for their son long before he became a ham. Their semi-rural home was located halfway up the Niagara Escarpment, facing north, overlooking the Niagara peninsula and Lake Ontario. You could see the Toronto skyline, 60 kilometres away, from their back window.

John didn't immediately realize the opportunity he was sitting on, but he figured it out pretty fast. If he put an antenna up at 30 feet, he had an effective height of about 150 feet, with a wonderful slope-off, all the way from west, through north to east. It was an excellent DXing location.

Like most of us, John started making local North American contacts, joining club nets and traffic nets, building CW speed, etc. When he ventured onto 20m and 15m, he found that many European stations would immediately start calling him. He never needed to chase them for QSOs. As John quickly improved his first station, the original dipoles gave way to a tribander. Just as quickly, the tribander gave way to homebrew monobanders on 10, 15 and 20. John was successful in DX pileups, often beating out the DX "big boys" in nearby Toronto.

His DXCC total started to grow and very soon the DXing bug had bitten. Shortly after, the contesting bug bit even harder.



John operated most major contests, either single op or in the multi-operator, single transmitter category. I had the pleasure to operate several multi-single contests with John from VE3AKG. Scores were much lower back then, but the contests were still just as fun.

In those early days, both John and I received lots of good mentoring, coaching and encouragement from Bob, VE3KZ, who had recently set up his own DXing and contest paradise a bit farther north on the Niagara Escarpment, near Milton, Ontario.

## ALBERTA BOUND

In 1979, John's work took him to Alberta where he became VE6OU. John packed up a small load of antennas and headed west. In 1980, he bought a country property southwest of Edmonton. The house was pretty spartan, but its 5-acre lot in farmland was perfect for erecting a multiple tower antenna farm. John got busy building and ended up with four towers ranging up to 140 feet, carrying monoband yagis for 10 through 40 metres.

In the five years that John resided at this QTH, he was very active. He became a northern Alberta beacon. John contested up a real storm, setting numerous Canadian records. John operated and won several multi-op contests with the active Edmonton contesters of the time, VE6WQ and VE6KW.



John Sluymer, VE3EJ

There was one tough lesson to learn in Alberta and that was about propagation close to the North Magnetic Pole. There were many disappointing contest weekends where geomagnetic activity would obliterate the propagation and scores.

John ended up watching propagation forecasts more closely than weather forecasts. To this day, John is much more conscious of the auroral zone than most southern VE3s and he is always sympathetic to, and admiring of, Canadian contesters who live west of Sault Ste. Marie.



John Sluymer, VE6OU, (at left) in Alberta in 1981 and his antenna farm in 1984.



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## BACK TO THE EAST

By 1985, John's company was asking him to transfer back to Southern Ontario. With the promise of good VE3 radio propagation again, he quickly agreed. This time, *truckloads* of tower sections and antennas headed east. Having enjoyed the rural Alberta experience, John again decided to look for country property. This time, he came up with an 18-acre place in flat farmland up behind the Niagara Escarpment, near Grimsby. In that summer, new towers started to grow. This, being a larger property, it seemed to beg larger towers so John started out with two 150 footers, one on each side of the house, lined up for low band wire antennas facing Europe. These two towers are still there and form the backbone of his current power-house station.

John operated as VE6OU/3 until 1990 when the VE3EJ call arrived. Over the intervening 27 years, John has incrementally and continuously added to, improved and tweaked his station for optimum competitive performance.

He has consistently delivered, year after year, excellent contest scores, many record setting, in pretty well all contest categories from Single Op Low Power up to full blown Multi-Multi efforts involving 10 or more operators. And along the way he has had a lot of fun.

## THE VE3EJ STATION TODAY

The current EJ antenna farm consists of the following:

- Five towers ranging from 60 to 150 feet tall.
- For 160m, a full-size, 3-element quarter-wave parasitic vertical array, switchable to four directions.
- For 80m, a full-size "Four Square" quarter-wave vertical array, switchable to four directions.
- For 40m, a full-size 3-element yagi at 150 feet backed up by a 2-element Cushcraft yagi at 110 feet.
- For 20m, three 5-element yagis, from 50 to 150 feet, some rotatable, some fixed direction, some stackable toward Europe.
- For 15m, three 5-element yagis, from 80 to 160 feet, some rotatable, some fixed direction, some stackable toward Europe.
- For 10m, three 5-element yagis, from 35 to 160 feet, some rotatable, some fixed direction, some stackable toward Europe.
- For 6m, a SteppIR 6-element yagi at 65 plus 6-element yagi at 80 feet.



The VE3EJ station today.

- For WARC bands, 4-element SteppIR plus 30m rotatable dipole at 75 feet.
- Receive antennas consist of a DX Engineering 4 Square which is useful on 160 and 80 metres and Northeast/Southwest Beverages.
- Rotators are Prop-pitches with homebrew controllers.

Inside the shack, John currently uses two K3s equipped with P3 Panadapters, each followed by an Alpha 9500 auto-tune 8877 amplifier. On 6 metres, he uses the K3s and an Alpha 8406 6 metre amplifier.

The switching required to allow all antennas to be switched to either K3 is quite complex, but has been engineered by John to be very simple to use.

The station layout is ergonomically engineered to be convenient and easy to operate by a single operator. It can quickly be converted to an efficient Multi-Single set up and, with a bit more effort, can be configured for Multi-Multi contesting.

## STATION BUILDING AND MAINTENANCE

The VE3EJ station has been totally conceived, engineered and implemented by John himself. He has hand-built his station to what it is now over a few decades. Sure, John had some help from his contesting buddies, and the odd time he had a backhoe or crane on the property, but VE3EJ is not a station that was contracted out in any way to professional erectors.

John will never be called an appliance operator. Most of the station towers were stacked with a rope, a pickup truck and friends. The antennas went up the same way. Almost all the antennas are homebrew, built from good computer analyzed designs, and built tough to withstand the wind and ice that can occur in the Niagara Peninsula. Most of John's large antennas have never been down for repairs in 25 years. Big repairs have never been needed. John built them to last.



From the photos accompanying this article you will see that John's station is much more complex than most. Actually, it is quite a web of antenna cables, rotator cables, phasing lines, stacked antenna switching systems and receive antenna systems. It takes a full-time station engineer to manage and maintain all of this!



John knows his station down to every last detail. He knows where every splice is in every cable run, where every cable run goes, how every switching and stacking system works, and he knows how to keep it all in good shape.

John regularly inspects each tower. Every year, before contest season, he does a full check of *all* systems. Usually he finds a few snags; the regular stuff that occurs with the wear and tear of the Canadian climate. John attends to these snags immediately, before problems compound. Every autumn sees his station in tip-top shape.

## JOHN'S ACCOMPLISHMENTS

John has lived contesting and DXing to the fullest. He has never missed an opportunity to try a varied approach to the competitive parts of our hobby. He operates mainly SSB and CW contests. His much preferred mode is CW.

John holds numerous Canadian domestic and DX contest records; too many to list here.

He has entered every running of the CQWW Phone Contest since 1973. He has never missed one! He has always been in it from one location or another.

John has earned his way to the World Radio Team Championship (WRTC) in all five runnings of the event since its beginning in 1996. He has never missed one! WRTC is considered the Olympic Games of Contesting and is held in a different country every four years. Each time, John has partnered with another very notable Canadian contender, Jim, VE7ZO (VE3IY). In WRTC 2006, held in Brazil, John and Jim were the WRTC winners using the call PT5M! It should be mentioned that one must qualify to enter WRTC. You cannot just show up to enter. Qualification involves submitting good scores in numerous lead-up contests over the preceding four years. The competition is stiff.

John has travelled long distances to guest operate from several major contest stations: A61AJ (UAE), HC8N (Galapagos), K3LR and KC1XX. John has operated in Multi-Multis at K3LR (Tim Duffy's contest superstation in Western PA) on 16 different occasions in as many years!

He has graciously hosted numerous Multi-Single efforts, some Multi-Multis and one Multi-Two entry. Over the past few years John has hosted Multi-Singles for CQWW SSB and CW, manned by CCO testers, consistently putting in super scores.

John has hosted Single-Op guest operations by such notables as Jeff, N5TJ, Randy K5ZD, Gary VA7RR and Yuri, VE3DZ.

In an interesting twist, Dick, N6AA, was working his way toward operating the CQWW Contest from all 40 CQWW zones. John hosted him for a contest from Zone 4 in 2001.

## DX ACCOMPLISHMENTS

As mentioned earlier, at a young age John also developed a passion for DXing and over the years he has racked up some very impressive numbers. John now sits in DXCC Honor Roll position # 1 on SSB and Mixed. On CW, John is only missing P5, North Korea. His current DXCC standing is 355/341 Mixed. His DXCC Challenge total is currently 3,027.

John earned the first ever 9 band DXCC awarded through Logbook of the World (LOTW). He has 577,000 QSO records in LOTW, with approximately 150,000 QSL matches.

John has participated in many Microlite group DXpeditions including VP8THU (South Sandwich, 2002), VP8GEO (South Georgia, 2002), FT5XO (Kerguelin, 2005) and VP8ORK (South Orkney, 2011). It would appear that he likes the far south! By the way, these expeditions were all rigorous, long distance travel, long duration and costly. They were done with chartered scientific vessels, not with the comforts of airlines and hotels!

John has also operated over the years as PA9YI, 8P9EJ, VP8DEJ, VP2EEJ, VC3J and at 9K2HN, PE2EVO, HC1OT and VP2E.

## MAJOR RECOGNITIONS

In 2006, John received the RAC Radio Amateur Radio of the Year Award which is presented to an individual who has "made an outstanding contribution to Amateur Radio in the last year, or have contributed consistently to the welfare of Amateur radio over several years."

In May of 2011, John was inducted into the CQ Contest Hall of Fame.

## GIVING BACK TO THE HOBBY

John has always been very willing to contribute time, effort and good judgement back into contesting. As far back as 1977, John served as the Vice-President of the Canadian DX Association.

For the past 18 years, John has been a member of the CQWW Contest Committee. This committee oversees the CQ Magazine sponsored contests, establishing rules and log checking methods to ensure that the contests are run fairly and ethically, and adapting the contests' rules to accommodate new technical innovation. He operated a DX cluster node at VE3EJ from 1997 to 2007.

## VHF,UHF HF ANTENNAS



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John is currently the President of Contest Club Ontario (CCO) and was a founding member of the club back in 2002. CCO has grown from 16 members in 2002 to about 250 members today.

For the past 10 years, the CCO Annual Barbecue has been held at John's QTH, with over 80 guests attending in recent years. Recently, John has become a Director of the World Wide Radio Operators Foundation (WWROF).

He has been an instructor at the Dayton Contest University, a speaker at the Dayton Contest Forum, the Dayton Antenna Forum, the Dayton 160m Dinner and the Maritime DX Forum in Halifax.

## PROFESSIONALLY

For most of his career, John worked for Canada's leading large tower manufacturing and installation companies. How fitting! He gained structural and RF experience from simple two-way radio systems all the way up to complex cellular installations, to broadcast radio and television transmitters and antennas including the newest Digital TV transmitters. John is now semi-retired and still consults and contracts, mainly with broadcast transmitters and antenna systems.

## WHAT'S NEXT?

John hasn't let the cat out of the bag yet on what the next new antenna or expedition will be, but I am quite sure he has something on the drawing board. Stay tuned. Keep up the great work John! You inspire us all.

## ABOUT THE AUTHOR

Dave Dudley VE3OI, was first licensed in 1971 as VE3BVD. He was an enthusiastic contester during the 70s and 80s and had a fairly competitive station near Guelph, Ontario. Dave was away from Amateur Radio for several years while working and living in the Far East. He is now back at the same QTH near Guelph and enters contests from time to time with a more modest station.

# All Things Digital

## Amateur Radio for the 21<sup>st</sup> Century OO4

Robert C. Mazur, VA3ROM

E: [va3rom@rac.ca](mailto:va3rom@rac.ca)

W: <http://my.tbaytel.net/va3rom>



*This is an updated rewrite of my original Hellschreiber article that appeared in the spring 2009 issue of APRS® Thunder Bay. Frank Dörenberg, N4SPP and Murray Greenman, ZL1BPU, were instrumental in assisting me. My sincere thanks goes to both of them for all their help and permission to use material from their excellent websites: <[www.hellschreiber.com](http://www.hellschreiber.com)> and <[www.qsl.net/zl1bpu/HELL/Index.htm](http://www.qsl.net/zl1bpu/HELL/Index.htm)>.*

*This article is geared towards the modern computer soundcard use of the mode so I will skim over the details of the mechanical form and try not to get too technical. If you become interested in this fascinating mode, check out Frank's detailed tome because it will take you through Hell from A to Z!*

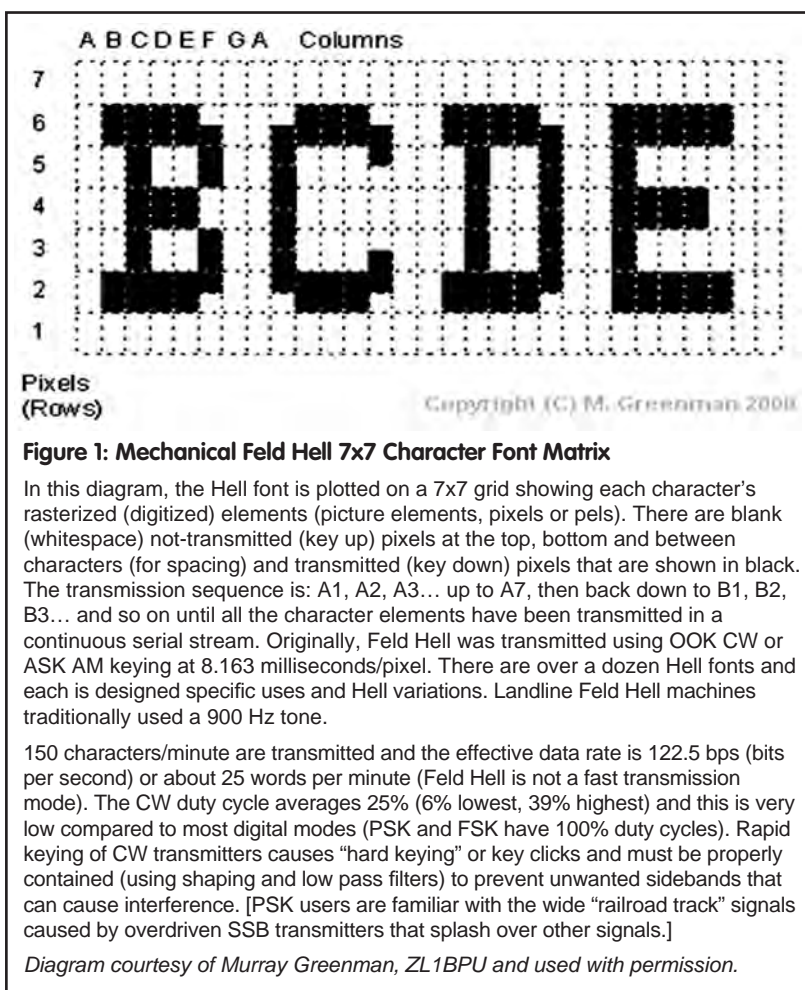
### WHAT THE HECK IS HELL?

Dr. Rudolf Hell (1901-2002) is perhaps the least known of the great modern inventors; with nearly 1,000 patents (separate or jointly) and he rivals Thomas Edison, yet I doubt that many know his name. His long life spanned two centuries from the dawn of flight to the iPod; his inventions found their way into everything from radio and television to computers!

In 1929, Dr. Hell invented a method of transmitting and receiving text on a wired (via electrical pulse or tone) or a wireless system (via on/off keyed continuous wave or amplitude shift keying) using small, light and portable equipment. This was a tremendous improvement with respect to the large, heavy and expensive newswire teleprinters of the day as Dr. Hell's primary objective was to design a practical method for the reception and transmission of messages by press agencies.

Three steps are involved: convert a character to digital form (digitize or rasterize) and store that representation in memory storage (mechanical, magnetic, optical, etc.); retrieve a character from memory and transmit it as a sequential stream; receive and reassemble that transmitted sequential stream and print the character. Sounds simple, eh? The mechanical system used only upper case characters, numbers and four symbols +-/ ? plotted on a black and white 7 x 7 grid.

Each black or white dot (pixel) is transmitted at a specific rate and sequence; if using a continuous wave (CW) transmitter it's via an unmodulated carrier using simple on-off keying (OOK). What's even more interesting is that Hellschreiber doesn't transmit or need any start/stop or synchronization bits, error correction or "handshaking". The transmitting station starts sending characters and the receiving station starts printing the characters, and it's the person, not the machine that has to make sense of what has been received.



As per the convention, this system of radio text printing or writing (German verb: Schreiben) was named after its inventor. In WWII, German army field (German noun: Feld) radio operators used Hell's Schreiber system and it became popularly known as Feld Hell or just Hell.

Interestingly, the word "Hell" also has other German meanings and many non-German speakers will often mistranslate Hellschreiber to mean "light writer", "bright writer" or "clear writer". However, it could as easily have been called Rudolfschreiber and it would have nothing to do with a flying and writing reindeer! It's simply a system that was named after Dr. Hell, period.

### THE TWO PIXEL RULE

With reference to Figure 1, you can see a slight problem by looking at the right sides of the "B" and "C"; how on earth do you transmit half a pixel (black or white)? Dr. Hell came up with a unique way to do this and also increase the vertical resolution but not increase the bandwidth. The seven vertical elements would be transmitted as if they were half-height pixel pairs, so that no single half-dot or half-space would ever be transmitted by



its lonesome. Each half-pixel would be equal to 4.0815ms transmission time and the mechanical Feld Hell transmitters could slip the odd-ball pixel (on or off) into a matching pixel pair (on or off). So, you would end up with either a pair transmitted for a minimum of 8.163ms (on or off) or a triplet transmitted for 12.245ms (on or off). For mechanical machines to do this was amazing using only gears, springs, sprockets, etc. as they had to run like a finely tuned Swiss watch! Note: Rapidly keying a transmitter on and off can cause "hard keying" and produce unwanted side bands; transmitters also need some "recovery" time to switch between states so Dr. Hell decided that the minimum keying should never be less than 8.163ms for the rule.

Today, computers make it a lot easier to software emulate the Feld Hell transmitter and receiver (no moving parts, for one thing). Frank's graphics (see Figures 2A and 2B) show how we convert the Feld Hell font by rasterizing (digitizing) a character set on a 14 x 7 grid for computer use. Each software Hell character is now 98 bits and stored in RAM (random access memory) as an indexed array. Each character's bits (pixels) are bit shifted, in a serial sequence, to implement the Two Pixel Rule. As long as the sequential bits that follow are on (or off) the transmitter will remain either on (or off) until a change of state is required.

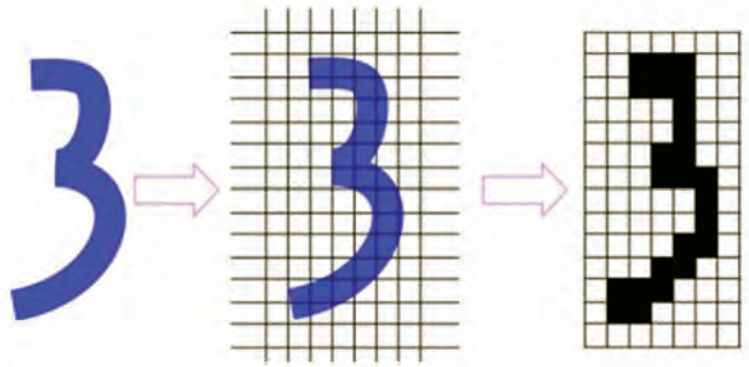
## FUZZY WUZZY WAS A WHAT?!

Both Hell and Morse Code are considered "pseudo-digital" modes in that no start/stop, error correcting, synchronization bits, et al are used for transmission encoding and reception decoding. When Amateurs tap out Morse Code, we don't have to encode the message from English to Morse (our brain treats it like any natural language; with practice you begin to hear words and sentences – not dots and dashes). It's the receiving operator that has to make sense of the message and deal with any fading, interference or sloppy sending and ignoring everything else! The "Cocktail Party Effect" is a well-known phenomenon where one can, in a crowded room of people all talking about different things to others, focus in on any specific conversation of interest and block out all the others. You may lose pieces of the message, here and there, but you can usually understand enough to comprehend what's being said. Now, if you use a "true" digital mode, such as APRS for example, if just one bit in a packet is lost by the receiving station (computer) the entire packet is rejected as if it never existed! APRS is an "all or nothing" digital mode. Fortunately, more than one APRS station is usually monitoring the frequency and any one of them should be able to decode the packet and relay it along – hopefully!

In the late 1990s, the human method used to encode and decode visual, audio or physical patterns into language, text, music, art, etc., was given the very scientific term "fuzzy logic" and this also defines the pseudo-digital modes. Digital computers can't deal with "maybe" situations while humans can. This ingrained ability of all higher animals (with various levels of complexity) allowed us to communicate before speech and the written word evolved; facial expressions,

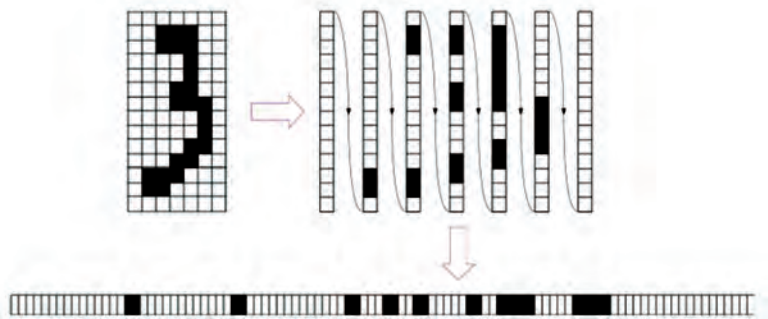
body "language", hand gestures or eye contact can all contain as much or more information than words can (a picture is worth...). When you command a dog to "SIT!"

**Figure 2A: Example Hell Font Character Digitizing**



In this example, the written (analog) number 3 is placed on a 14 x 7 grid (Two Pixel Rule evolved from the 7 x 7 grid) and converted to a rasterized (digitized) array of light and dark pixels. There are blanks rows (left, right, top and bottom) for character spacing. Once an entire alphanumeric set is digitized, it's stored in computer random access memory (RAM) for later retrieval.

**Figure 2B: Example Hell Font Character Transmission**



To transmit a Feld Hell character, the computer retrieves its digital representation from RAM and starts from the bottom left-hand corner and goes up and down column by column with the dark pixels representing binary 1 (mark) and the white pixels representing binary 0 (space). This forms a continuous transmission stream for OOK CW, ASK or AFSK. Each character is 98 bits (14x7) and takes 400ms to transmit.

*Diagrams are courtesy of Frank Dörenberg, N4SPP and are used with permission.*

it uses fuzzy logic to see if this tonal pattern and required action is stored in memory (the brain) and Fido will either sit or require more training; a cat will just fuzzy logic glare back at you with: "Get bent!"

## HELL ON A COMPUTER

Okay, enough background, let's get the Hell rolling! We are going to send and receive Feld Hell (the most commonly used form) via computer software using a soundcard, connected to an SSB transceiver via a soundcard interface (built or bought). HF soundcard Feld Hell always uses USB mode regardless of the band, as per the standard for most soundcard modes (there are a few specific exceptions). A single audio tone (sine wave) is injected into the transceiver to produce Audio Frequency Shift Keying (AFSK) and this is effectively emulates OOK CW or ASK AM Feld Hell. The bandwidth required will vary depending on the method used; for example, SSB AFSK Feld Hell uses about 245 Hz with an allocated maximum of 350 Hz by the International Telecommunications Union (ITU) and the OOK CW Feld Hell bandwidth will be 61.25 Hz, if and only if the Two Pixel Rule is obeyed (for more information visit <[www.nonstopsystems.com/radio/hellschreiber-bandwidth.htm](http://www.nonstopsystems.com/radio/hellschreiber-bandwidth.htm)>).

With AFSK Feld Hell, it's the soundcard that's going to be switched on and off injecting a single sinusoidal tone while the SSB transmitter remains in transmit mode until the end of the

transmission sequence (think about it). So, you will require an interface that either has serial port PTT keying or if using a VOX PTT interface, it will need to have some method to control the PTT delay "hang" time (a quarter second will suffice). Since most new computers lack dedicated serial ports, a USB-to-serial adapter can be used with serial port PTT soundcard interfaces. If your HF transceiver has built-in digital modes or voice VOX, it can also be used by adjusting the delay to a minimum to hold the transceiver in transmit mode as the soundcard is sending the Feld Hell signal.

## SOFTWARE AND CLUB HELL

The sound of Feld Hell is unique and you'll never forget it once you hear it. I call it "little frog with laryngitis" and that's what makes it very easy to identify from all the other modes; there are dedicated frequencies that also help with the identification. Hell doesn't have a very melodic sound so if listening to a hoarse croaking frog doesn't appeal to you, just turn down the volume and watch the text being printed (actually pixel by pixel painted) on your monitor.

Because a Feld Hell receiver gets no help from the transmitting station and doesn't even know in what phase state the original signal should be (this changes as an HF signal bounces between the ionosphere and Earth unless you are receiving the ground wave), received Hell text is printed as double lines but the text is only transmitted once. This doubling makes it easier to use fuzzy logic to read and understand the message. The way the text is printed tells you a little about how much in or out of signal phase you are (split top and bottom or half text lines) and any timing errors (slanted characters) with the transmitting station.

There are modern variants such as PSK and FM Hell for weak signal work and S/MT (sequential multi-tone) and C/MT Hell (continuous multi-tone) for use with high atmospheric noise levels. The multi-tone modes can be decoded using FFT (Fast Fourier Transform) capable programs such as Spectran <<http://digilander.libero.it/i2phd/spectran.html>> (the waterfall display scrolls right to left instead of top to bottom). Hell's weakness is when there's very heavy fading in unstable atmospheric conditions and with other nearby carrier-based signals; you may then be guessing too much at what is being received, but it's often better than voice and other digital modes given Feld Hell's peak to average power ratio (PAR)

**Figure 3: Various Soundcard Interfaces**



Left is the old Buxcomm Rascal interface with computer serial port PTT control and requires no external power. Right (top) is the Tigertronics Signalink SL-1+ VOX PTT interface and requires an external 9-12v DC power source. It has a PTT delay button to provide a fixed delay (internally adjustable). Both it and the Buxcomm plug into your computer's mic/line and speaker soundcard ports and connect to your transceiver. Audio and recording level control is via the Windows sound mixer panel. Lower right is the Tigertronics Signalink USB external soundcard VOX PTT interface. It plugs into your computer via a USB port for both audio over USB and DC power; it has its own audio level controls and variable PTT delay. The more money you spend, the more features and convenience you get. All are available with the appropriate radio control cable for many transceivers or you can easily make a cable.

**Table 1: Field Hell Frequencies (USB) and Nets**

<b>160m</b>	1.804 MHz	<b>17m</b>	18.104 MHz
<b>80m</b>	3.574 to 3.584 MHz	<b>15m</b>	21.074 MHz
<b>40m</b>	7.077 to 7.084 MHz	<b>12m</b>	24.924 MHz
<b>30m</b>	10.137 MHz (Region 1 10.144 MHz)	<b>10m</b>	28.074 MHz
<b>20m</b>	14.063 MHz (preferred) or 14.073 MHz (see Note 1)	<b>6m</b>	50.286 MHz

### Sunday

20m Net, David, G0DJA, Sundays; **1200 UTC** @ 14.063 MHz

### Monday

160m Net, Lou, W8LEW, Mondays weeks 2 & 4; **0300 UTC** @ 1.806 MHz  
10m Net, Larry, N3LFC (see note 2), Mondays; **1800 UTC** @ 28.074 MHz

### Thursday

40m Net, Lou, W8LEW, Thursdays; **0100 UTC** @ 7.077 MHz

### Saturday

80m Net, Hugh, AC7XF, Saturdays; **0400 UTC** @ 3.576 MHz

### Notes:

- 1) For 20 metres, the FHC calling frequency is 14.063 MHz up to 14.069 MHz PSK31 operations are on 14.070 MHz, and the QRP CW club uses 14.060 MHz as their calling frequency. If using 14.073 MHz, be sure to avoid interference with the JT65 segment at 14.076 MHz.
- 2) This net is occasional until the sunspots return. Larry is looking for another net control station.
- 3) The above frequencies and information has been obtained from the Feld Hell Club website.

or crest factor ( see <[http://en.wikipedia.org/wiki/Crest\\_factor](http://en.wikipedia.org/wiki/Crest_factor)> and high signal-to-noise ratio (SNR). Murray's website has a document that goes into the technical details of Hell and its incarnations <[www.qsl.net/z1bpu/DOCS/Hellspec.pdf](http://www.qsl.net/z1bpu/DOCS/Hellspec.pdf)>.



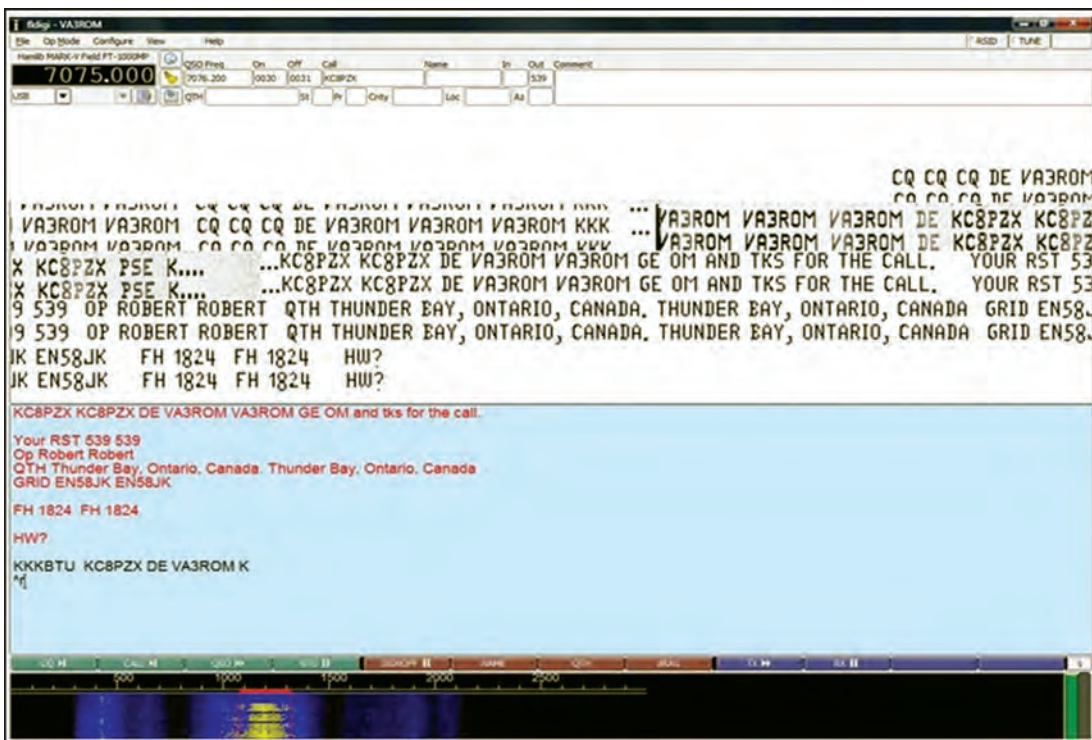
## HELL PROGRAMS AND CLUB HELL

Free Hell specific programs: Nino Porcino, IZ8BLY Hellschreiber and HM Spekink, PA3BQS WinHell. I'll enclose them in the Zip file that you can download from my website. Also free are Fldigi that's a complete digital radio modes system (it's very powerful and supports many digital modes) <[www.w1hkj.com/download.html](http://www.w1hkj.com/download.html)> and MultiPSK by F6FTE <[http://f6cte.free.fr/index\\_anglais.htm](http://f6cte.free.fr/index_anglais.htm)>. Digital Master 780 (DM780), part of the Ham Radio Deluxe package, is another "many-modes" freeware program (according to the list of credits, it seems to include parts of Fldigi and MultiPSK). For learning purposes, it may be best to start with a mode specific program such as IZ8BLY Hellschreiber. There are various commercial programs available (such as MixW) but I've found that the free ones are just as good, especially Fldigi.

Many of the soundcard data modes have Internet user support groups and online clubs that you can join. The Feld Hell Club (FHC) is free to join and they'll issue you an FH certificate and number (good for life) that is used in various club contests and communications with other club members <<http://sites.google.com/site/feldhellclub>>. The FHC sponsors contests, conducts Hell Nets and actively promotes use of this mode. YouTube has many Amateur Radio instructional videos and Randy Hall, K7AGE, has produced several such as this "Hellish" one at <<http://tinyurl.com/b2ekkv>>. Randy does a great job of demonstrating the mode using IZ8BLY Hellschreiber. Ernie Mills, WM2U, has written a very good IZ8BLY Hellschreiber tutorial at <[www.qsl.net/wm2u/hell.html](http://www.qsl.net/wm2u/hell.html)>.

Frank was kind enough to proofread this article and added the following points:

1) It may be worth noting (more) explicitly, that Hell – unlike RTTY, etc. – involves no decoding or interpreting whatsoever at the receive end, other than by the human reader. Printed characters cannot be wrong, only distorted! This is an essential aspect of the Hell system. Hell software typically uses grayscale printing, which



Screen capture of my QSO with Paul, KC8PZX, with Fldigi operating in Feld Hell mode. Standard Morse code operating procedures, abbreviations, etc., are used with digital modes. Dial frequency was 7075 kHz USB, AFSK shifted by a 1200 Hz tone (the best power to audio level ratio is from 1000-2000 Hz). The waterfall (blue/yellow) display assists in tuning a signal (just mouse point and click) and can display frequency and bandwidth of mode used. Fldigi is customizable and directly controls many radios (with a serial interface) and makes logging, mode switching and tuning easy. Fldigi supports many digital modes such as PSK, MFSK, Hell, THOR, Throb, Olivia, MT63, Domino, RTTY and the Morse code. It has versions for Linux, Free-BSD, OS X, and Windows XP to 7. Note the double text printing for extra readability (upper half of screen). Since the text is perfectly doubled and nearly vertical I'm "locked" on to his signal in both phase and timing. Not much you can do about phase shifting but soundcard calibration corrects for any timing errors. Most digital modes programs can do this using a free utility called CHECKSR <[http://panbems.org/fldigi\\_calibration.htm](http://panbems.org/fldigi_calibration.htm)>.

allows even more "below the noise" extraction by the human, than the old black-on-white (binary) printers.

2) Likewise, it might be good to point out that "Windows" fonts (especially lowercase and cute ones) typically do not comply with the 8.16 minimum pixel/pulse duration rule. Hence, they have larger bandwidth and are less readable at the receiving end. Most PC Hell-software unfortunately allows you to use any font you want – stick with the "original".

### MY FINAL

What, I'm done with Hell, at least for now. It's a fascinating mode that is so simple and elegant. Yes, you can easily modify any Morse CW transceiver to send and receive Feld Hell, and that's part of the attraction. Perhaps someone will write an Android or Apple Phone version for more portability without having to lug around a netbook (there are versions for PSK, RTTY, APRS and Morse).

My next column is going to introduce an easy to use and program microcontroller chip called the PICAXE by Revolution Education <[www.picaxe.com](http://www.picaxe.com)> and it's well suited for Amateur Radio hardware and software projects. This will lead into the next, next column using a Hell variation (S/MT) combined with Spectran and simple computer and PICAXE programs/circuits for some old-school Ham tinkering and experimentation.

By the time you read this, yours truly will be officially retired from the federal silly service after 35 years, 7 months and 16 days of air/marine search and rescue communications. My lifetime "batting" average is well over .900 and this RO was either lucky or good enough to never "screw the pooch". My radio hobby turned into a long, satisfying and well-paying career that I would have done for free (almost). As the youngest on my course (age 19), I'm one of the last to retire; so, here's to the TCTI Ottawa (Heron Road) RO class of 1976-77 and Ray's altar bar, where we "prayed" every night! Saluti Primum, Auxilio Semper. – 73.

# RAC CONTEST MANAGEMENT

Bart Richie, VE5CPU – RAC Canada Day Contest Manager and Sam Ferris, VE5SF – RAC Canada Winter Contest Manager

Radio Sport Contesting has been around pretty much as long as the Amateur Radio Service has existed. With the formation of the Radio Amateurs of Canada (RAC) organization back in 1993, our consolidated national organization continued this historic tradition with the inclusion of two international contests as part of its charter – the RAC Canada Day Contest and the RAC Canada Winter Contest.



With the advent of affordable computers, hobbyists interested in Amateur Radio started to create computer programs to support Amateur Radio activities. Logging software and contest logging software in particular were among the more popular of earlier efforts as they offered some significant advantages over traditional paper records. Early efforts were often based on database programs, but it was not long before specialized programs started to appear and we saw the first generation of contest logging programs, both commercial and hobbyist contributed as shareware or even free to use.

By the 1993 formation of RAC, computers and contest logging software had progressed to a pretty mature state in the era of Microsoft DOS and were starting to develop strong options for the Microsoft Windows environment as well. There were options available for the other computer platforms for those who like to explore these alternatives. It was fairly easy to find software in the form of generalized log checking software – such as KB0ZPL, Logic and NA in the early 90s – that could be readily adapted to serve for contest logging or in later times programs like CT, Write Log and N1MM with ready to run support for RAC contests. As time has progressed the RAC contests have received excellent support from the authors who write contesting software. Today, all of the major commercial contest logging and scoring programs support the RAC contests. The spirit of “giving back” is alive and well in the Amateur Radio software authoring community as many of these programs continue to be free of charge and are as high quality as the commercial ones in many cases.

The premise of contest logging and scoring software is fairly straightforward. Write a computer program that encapsulates the rules of the contest, logs and tracks the contacts made during the contest, tracks duplicates and applies the point value to each contact based on the rules. Although easy to say, there is a lot of work to capturing the essence of the contest and all the nuances of the rules. As an example, the RAC contests award a special point value of 20 points for contacting an official RAC contest station. The rules provide a very distinct list of the 14 call signs that make up RAC stations. If program authors are not very careful they can mistakenly score other stations with RAC in the suffix or even score the two VE stations with RAC in their suffix that are not official stations. Another item is to keep up with the actual multiplier list since it does evolve over time. With elements like these to consider, it is very important that any logging software you use be kept current to make sure all of its calculations are accurate and in sync with current published rules.

The life of a log checker is an interesting one due to the challenges of the variety of log formats that exist today. These varied formats also made creating software to check logs a very complex process that still required manual intervention. The American Radio Relay League (ARRL) and *CQ Magazine* got together to create a potential solution by creating the Cabrillo format. That effort was headed up by Trey Garlough, N5KO, with



Bart Richie, VE5CPU (at top) and Sam Ferris, VE5SF.

support from six of the key authors of logging systems: CT by K1EA; NA by K8CC; RTTY by WF1B; SuperDuper by EI5DI; TRlog by N6TR; and Writelog by W5XD. Many others promised to add Cabrillo support by autumn of 2000. With that level of support the ARRL and *CQ Magazine* “blessed” the release of version 2 of the Cabrillo format in 1999. Over 40% of the logs submitted for the 1999 running of the ARRL November Sweepstakes SSB were in Cabrillo format. By any measure that level of adoption in such a short time is considered a success. Since this was a published standard and was made open for others to use as guidance to a potential data format for contest logs, many other organizations embraced this structure including the RAC Contest Management Committee. Like many standards, they evolve over time and as the Cabrillo log format has changed so has the version published by RAC, keeping abreast of the improvements to the data structures.

Now you would think the life of a log checker and software author got a lot better after this, but all is not perfect in “Cabrillo land”. Due to many customized elements in any particular contest, such as the exchange information and variety of bands used. We use the 2 metre and 6 metre bands in our RAC contests – an unusual element for a worldwide contest.





## WELCOME / BIENVENUE

*We wish to welcome the following new members of Radio Amateurs of Canada for April and May.*  
*Nous souhaitons la bienvenue aux nouveaux membres suivants de Radio Amateurs du Canada pour avril et mai.*

Robert Bryan Ackman, VA5RI  
Robert James Arnold, VE3KXG  
Erik Geoffrey Baer  
Dane H. Beamish, AC8KP  
Kathryn Boegel  
Tom Brannan  
William R Brown, VE3MMQ  
Denis W. Cahill, VA3ONO  
Donald James Carlgren, VA7ZT  
Jean-Pierre Cornut, VA2CPJ  
Pierre Desmarteau, VE2KY  
Martha Dinsmore, VA3SBD  
Alan Robert Dunn, VE3IQW  
Charles W Ferguson, VE3WCF  
Anthony Severio Fernandes  
Yvonne Findlay, VA7YSF  
David Finlay, VA7DPF  
Robert Jacques Fortier, VA6RJF  
Antony Francis, VA6ANT  
Bruce Given, VE2GZI  
Robert Goodman, VE3ZRG  
Allan John Grant, VA4AJG  
Beverly Green, VA7AW  
Dale Green, VE7SV  
Carole Hamel, VA2NDJ  
Peter Hicklin, VA3PSH

Stephen R. Hill, VA7XTP  
Richard Hinz, VE3RHZ  
Brian Alexander Hopkins, VA3BAH  
Shawn Hurley, VO1CRX  
Glenn Cecil Juby  
Paul A Judd, VE7VKG  
Louis Laderoute, VE6VL  
Bernard R. LeBel, VE9BEL  
Andy Lewis  
Tony Lloyd  
Ian Ross MacLeod, VE3IRM  
Matthew N Manning, VO1MNM  
Frederick McDougall, VA6FRM  
Hugh Hendry McLellan, VE1AKZ  
Ronald C McMahon, VE5RCM  
Robert McMillan, VE6XMB  
Harold Clint Metcalf, VA3KDK  
Marco Migotti, VE6FAX  
Marco Montesano  
Timothy Keith Morrison, VE3ZEW  
Scott R Nalder, VE6OBL  
Steven Kane Nasby, VE7ELI  
Geoffrey Warren Norris, VA6TAC  
Ian Pearce, VE1IGP  
Donald G Poaps, VA7DGP

Cesar Salvador Pulvinar, VE6CSP  
Maria Antonia Victoria Pulvinar, VA6ANP  
Bradley Robinson, VA5EFJ  
Barry Robinson, VE3ZR  
Leo Roth, VE5LFR  
Victor Sevillano Canicio, VE3QBV  
Bill Shearing, VE3UTG  
Michael Shouldice, VY0CF  
Douglas F. Smith, VE3OUI  
Robert Smith, VE3PTC  
Gary M Smith, VE4YH  
William R. Steeves, VE9WRS  
Terry Douglas Stitch, VE3KNI  
Martins Viktors Stripnieks, VA3VWG  
Karen Szol, VA7OZS  
Don Trueman, VE4AY  
Thomas Tumino N2YTF  
Hudson C. Vallieres, VE9HCV  
Karen Venables, VE6KUV  
Andrew John Vrooman, VE3AJG  
Diane M Vrooman  
Sean Wheatley, VE3SWY  
Stan Williams, VE3FLW  
Brian James Wing, VE7BWN  
Robert Anthony Yuen, VE7YDA

There is lots of room for customization and error. Some software authors do not read the specification with sufficient care and change up the order of the fields, some fields were not large enough to hold some information like frequencies in the VHF band segment or the logging author used a letter for a band like "A" for 2 metres. The list of variations goes on and on. Fortunately, most of the authors of software logging systems look for updates and accept feedback on their logging programs and work to correct these kinds of issues, but not all of our participants update their programs to the latest versions or the latest support files so these issues linger for years.

The RAC log checking process has evolved over time. Typically, our contest management teams have consisted of small groups or in some cases one individual managing an entire contest. The early efforts were pretty much manual in nature – with some support from basic tools like spreadsheets and databases to help list and calculate scores – and any comparisons of log content were mostly based on manual inspection of the material.

Over time software products like spreadsheets became more sophisticated and a certain level of automation was able to be created, thanks in large part to the Cabrillo log format. Dave Shipman, VE7AM, developed an Excel spreadsheet that did a consistent scoring check and recap that could be handled inside the spreadsheet to add a level of automation to the process during his tenure as one of the contest managers. The current RAC Contest Management Team was happy to inherit this piece of work from Dave and used it for the first few contests.

Knowing that other contest committees had more sophisticated processes and software to do log checking, we approached the ARRL Contest Management Team late in 2006 to find out what they were doing. Yes they had a variety of programs, but it was really something developed by their volunteers who had programming experience and used a large variety of programming tools and techniques. At the time there was nothing that they could share directly with us. We explored a number of options from other groups and commercial enterprises, but there was really nothing that would fit our needs.

Bart Ritchie, VE5CPU, the current Canada Day Contest Manager, had been doing hobby level programming on and off again for years, but did not have a current development environment. As with many things, our interests wax and wane and programming was not at the top of his current list. After handling several contests with the spreadsheet models and knowing how to deal with a lot of the required logic to construct a program, he decided to get involved in a modern development environment but to keep it simple in the hopes that others could carry on in the future. A key criterion was something that was inexpensive or even free. Microsoft was offering up their Visual Studio development systems with a Visual Basic Express version at no charge for the hobby market. The price was right and the Visual Basic language was one of the easier environments to learn and get ramped up on relatively quickly.

With an updated programming environment and several contest checking sessions under his belt, he proceeded to develop a replacement for the spreadsheet log checker. The first result was ready in 2007 and it decreased the log checking process by half the time of the typical spreadsheet system.

Once you get bitten by the programming bug, you keep going and tweaking the program, adding features and functions. By 2008, the program could handle many of the variations in the log files that we encountered for all the many reasons listed previously in this article. By 2009, the software had improved enough to cut the processing time again in half and also added functions to make the results analysis easier.

We continue to focus on accurate log checking and handling the many variations we still encounter with the log files. Surprisingly, a significant number of software packages, or certain versions of some packages, calculate scores incorrectly. Early log processing for the Canada Winter Contest 2011 showed that at least 50% of the scores as submitted were incorrect, further reinforcing the need to keep your software current. With the use of a consistent piece of software to score the logs, we are confident that the results we produce are accurate based on the rules and points allocation allowed in the contests. A level of manual cross-check is conducted for the top scoring entries on a random basis and any time the results are close enough to warrant a second level of cross-check.

In 2010, the software was extended to support generating the data needed to semi-automate the certificate production from the results file, further helping speed up the process and allowing us to get certificates out more quickly than ever. This also allowed us to move to email-based delivery of the certificates and help reduce the costs to RAC for mailing, a cost that continued to climb year over year and was one of the more significant expenses in supporting the contests. One example of the magnitude of the cost is the 2010 running of the RAC Canada Winter Contest in which 225 certificates were generated from 581 logs received. Of those approximately 12 certificates were sent by mail. Generally, email-based delivery of certificates has been well accepted, with a few contesters commenting that they still prefer certificates delivered by the postal service.

We still accept paper logs and they require manual inspection and input into the log checking process, but they represent a smaller fraction of the logs we receive in each contest. Some contesters also send scanned versions of handwritten or typed logs via email, which essentially qualify as a paper log. While this format is still accepted, it adds considerably to the processing times for such entries. Despite that, it takes almost as long to check those files as it does to run the electronic logs through the log checking system so please consider an electronic submission if you can.

## DARF IS THE DEFENCE OF AMATEUR RADIO FUND

It is a Trust Fund established in the early 90s by the Canadian Radio Relay League to provide financial support for research, and to defray travel expenses of a delegate to World Radio Conferences to defend the Amateur Radio bands.



The Fund is maintained by Donations from individual Canadian Amateurs and from Canadian Amateur Radio Clubs. Donations are deposited in the trust fund account and the fund is administered by the three DARF Trustees.

The trust is entirely separate from, and cannot be used for, RAC financial transactions. Donations may be made by cheque only.

Cheques should be made out to "The Defence of Amateur Radio Fund" and may be sent by mail to:

"Defence of Amateur Radio Fund", 720 Belfast Road, Suite 217, Ottawa K1G 0Z5

Visit <[www.rac.ca/~darf/](http://www.rac.ca/~darf/)> for more information.

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There are still a lot of manual efforts required in our current processes: to acknowledge receipt of the logs from the email addresses; log comparisons as needed; building the results files; and writing up the contest which is mostly manual. Despite this we have now reached a point where the results are released in a timely manner and we are very confident of the accuracy of the checking process. There are many other things that can still be done, but RAC is a small organization that has to use its resources wisely. It is dependent on its volunteers and many of the committees are made up of a small number of individuals and the RAC Contest Management Team is no exception.

As time and interest permit, we hope to continue improving on the processes and methods we use to manage the RAC contests and deliver timely and accurate results to our participants. There may come a day when we can offer up some of the extras that the ARRL does for its contest participants, but a lot of that kind of improvement will require more volunteers and appropriate computer skills to develop.

In the meantime we will continue to look for ways to improve on the RAC contest management systems and processes of the RAC Canada Day and RAC Canada Winter contests to deliver accurate and timely results to our contest community.

We hope you enjoy the RAC contests as much as we do.

## ABOUT THE AUTHORS

**Sam Ferris, VE5SF:** "I am an active contester and DX'er. I presently have over 200 DX countries to my credit. I enter most major DX and North American contests every year and have been fortunate to amass numerous certificates and a few plaques. Notable achievements in contesting include low power plaques for the Canada Day Contest (95, 97, 98, 99, 01), Canada Winter Contest (95, 97, 99, 00, 01, 02 and others more recently), Sweepstakes Low Power Phone – Canada (99, 00, 01), Sweepstakes Low Power CW – Canada (95), more recently a significant number of plaques as well as several top 10 placing in some of the major contests. I have also had the opportunity to guest operate at a few multi-operator efforts. My preferred mode for contesting and DX'ing is CW."

**Bart Ritchie, VE5CPU:** "I have been an active contester and DXer right from the beginning and have logged tens of thousands contacts on phone, CW and RTTY over the last 22 years. Although I do not formally chase the ARRL's DXCC award, I have worked over 200 countries and have some 175 or more confirmed with QSL cards. I have been fortunate to be a regular certificate winner in numerous contests – domestic and overseas, and have finished in the top 10 several times in the Canadian Contest Championship awards. I have been fortunate to win the 2005 RAC Canada Day Contest plaque for SOABHP and twice won country plaques in the CQ/RJ WW RTTY WPX Contest in both 2000 and 2001."





# RMS TITANIC 100TH ANNIVERSARY IN NEWFOUNDLAND

Cape Race, Newfoundland, was the focal point of the World on April 14, 2012.

Amateur Station, VO1MCE, located at the Myrick Wireless Interpretation Centre at Cape Race,

was in communication with the *MS Alazamra*, located over the resting place of *RMS Titanic*.

Amateur Radio operator Joe Allen, N0MU, was on the bridge of the *Alazamra*, in communication with David Myrick, VO1VCE, at Cape Race.

At precisely 11:25 pm, Joe transmitted, "SOS SOS SOS de MGY MGY MGY, struck iceberg, send help 41.46N, 50.14 W". That was the distress call of *Titanic* from that location exactly 100 years earlier. Of course, "SOS" could not be transmitted into the atmosphere so, in order to facilitate the reenactment, Joe transmitted a "Spark Transmitter", simulated signal via Satellite phone to Dave at Cape Race.

Dave received the message on speaker phone and forwarded it, via Skype, to those dignitaries gathered at the Banquet Hall in Trepassey, NL.

From all reports at the Banquet Hall, the recreation of the distress signal was impressive. Members of the Upper Trinity Amateur Radio Club (UTARC), at Heart's Content, NL were also, via Skype, on line with Cape Race and Trepassey.

One hundred years ago, Heart's Content received news of the disaster, via landline telegraph, from Cape Race and, using the transatlantic undersea cable, let the world know of the *Titanic* disaster.

The Irish Loop Amateur Radio Club (ILARC) wishes to thank the UTARC Amateurs at Heart's Content and Supervisor Linda Sooley for their participation. The UTARC Amateurs dressed in period costume at the Heart's Content Cable Station to further authenticate the reenactment.

Thanks also go to Joe Craig and the Marconi Radio Club for their participation, to Joe Allen, N0MU, on board the *Alazamra* and to Rev. Marilyn Moore, VO1MJM, who officiated at the Ecumenical Service.

*Dave Myrick, VO1VCE – President, Irish Loop Amateur Radio Club and Board Member Cape Race Heritage Inc.*

*Pictures taken at Government House compliments of Edith Cuerrier.*



*Amateurs gathered at Government House for the official launch of the Titanic event. Mac Chafe, VO1MC, Cal Tucker, VO1NY, Joe Craig, VO1NA, Dave Myrick, VO1VCE, Lieutenant Governor John Crosbie, Bill Myrick, VO1BA, Fred Osbourne, VO1FO, Charlie Marsh, VO1VZ, Wayne Smith, VO1TA, Barry Harris, VO1NC and Craig Tucker, VO1US.*



*Amateurs at Heart's Content Cable Station. Fred Osbourne, VO1FO, Ross Tricket, VO1ROS, Brandon Jenkins, VO1HAX, Doug Card, VO1DD and Barry Harris, VO1NC.*



*Dave Myrick, VO1VCE, and Bill Myrick, VO1BA, with Lieutenant Governor John Crosbie. The Myrick family has a communication history at Cape Race.*

# CALL FOR NOMINATIONS / MISE EN NOMINATION

## THE CANADIAN AMATEUR RADIO HALL OF FAME

Any resident of Canada who holds a current Amateur Radio Operator Certificate issued by the Government of Canada, or any Canadian Amateur Radio organization, other than Radio Amateurs of Canada, may submit a nomination for Member of the Canadian Amateur Radio Hall of Fame. Membership in RAC is not mandatory.

Any resident of Canada who holds a current Amateur Radio Operator Certificate issued by the Government of Canada, except a Radio Amateurs of Canada employee, officer, Director, Assistant Director, volunteer manager, or leadership official in the Field Organization, may be appointed as a Member of the Hall. Membership in RAC is not mandatory. Any eligible person may receive an appointment as Member of the Hall for outstanding achievement and excellence of the highest degree, for serious and sustained service to Amateur Radio in Canada, or to Amateur Radio at large.

Nomination or appointment for Member or Honorary Member of the Hall may be after the death of the nominee.

A person who is not a resident of Canada may be appointed only as an Honorary Member of the Hall. The other requirements for appointment as Honorary Member of the Hall are the same as for Member.

Only the RAC Board of Directors, by majority vote, is allowed to nominate candidates for Honorary Member (those persons not residents of Canada). Because of the requirement for Canadian residency for appointment as Member of the Hall, it is incumbent upon the nominator to confirm the Canadian residency of a nominee prior to submitting a nomination.

Nominations shall be submitted to the Board of Trustees using the Canadian Amateur Radio Hall of Fame Nomination Form which is available on request from RAC Headquarters or for download from the RAC website at <[www.rac.ca/en/rac/programmes/hall-of-fame/nominations.php](http://www.rac.ca/en/rac/programmes/hall-of-fame/nominations.php)>. All nominations shall include a biographical sketch or curriculum vitae. Three references shall be included for Member of the Hall.

***All nominations for Member of the Canadian Amateur Radio Hall of Fame must be received at RAC Headquarters by the close of the last business day of September.***

Late nominations will be considered in the next year. Once received, all handling shall be conducted in a secure and confidential manner. On or before the last business day of November, the Chair of the Board of Trustees for the Hall of Fame shall advise the Custodian (RAC) of the decisions of the Board of Trustees on appointments for the calendar year.

The Board may appoint a person who has been nominated in a previous year. For this reason, no advice shall be issued to the nominator that the nomination has not resulted in an appointment, nor any reason given why an appointment has not been made as a result of that nomination.

## TEMPLE DE LA RENOMMÉE DES RADIOAMATEURS CANADIENS

Tout résident du Canada qui détient un certificat régulier de radioamateur émis par le gouvernement du Canada, ou toute organisation radioamateur canadienne autre que Radio Amateurs of/du Canada, peut proposer une candidature au titre de membre du Temple de la Renommée des Radioamateurs Canadiens. Être membre de RAC n'est pas obligatoire.

Tout résident du Canada qui détient un certificat régulier de radioamateur émis par le gouvernement du Canada, sauf un employé de Radio Amateurs of/du Canada, dirigeant, directeur, assistant directeur, gestionnaire bénévole ou chef attiré dans l'Organisation sur le terrain, peut être choisi comme membre du Temple de la renommée. Être membre de RAC n'est pas obligatoire. Toute personne éligible peut être admise au Temple de la renommée pour réalisations hors du commun et de haut niveau relativement à son engagement sincère et soutenu envers le radioamateurisme canadien, ou le radioamateurisme en général.

La mise en nomination ou le choix d'un membre régulier ou honoraire au Temple de la renommée est possible à titre posthume.

Une personne qui ne réside pas au Canada peut devenir membre du Temple de la renommée à titre honoraire seulement. Les autres prérequis de mise en nomination honoraire sont similaires à ceux réservés au membre.

Seulement le Bureau des directeurs, majoritairement, est habilité à nommer un candidat honoraire ne résidant pas au Canada. En raison de l'obligation de résidence canadienne pour une nomination au titre de membre du Temple de la renommée, il est impératif pour celui qui nomme un candidat de s'assurer de sa résidence canadienne avant de présenter sa candidature.

Les mises en nomination devront être présentées au Conseil d'administration du concours (Board of Trustees) au moyen du formulaire "Canadian Amateur Radio Hall of Fame" disponible sur demande au siège social de RAC. Le formulaire peut être téléchargé à partir du site web de RAC à <[www.rac.ca/en/rac/programmes/hall-of-fame/nominations.php](http://www.rac.ca/en/rac/programmes/hall-of-fame/nominations.php)>. Toute nomination doit inclure un résumé biographique ou un curriculum vitae (CV) du candidat. Trois références doivent accompagner le formulaire de mise en candidature.

***Toute mise en nomination au Temple de la Renommée des Radioamateurs Canadiens doit arriver au siège social de RAC avant la fin du dernier jour ouvrable de septembre.***

Les mises en nomination retardataires seront prises en compte l'année suivante. Une fois reçue, la mise en nomination sera traitée de façon sécuritaire et confidentielle. Le ou avant le dernier jour ouvrable de novembre, le président du Conseil d'administration du Temple de la renommée avise le responsable (RAC) de la décision du Conseil relativement aux mises en nomination de l'année.

Le Conseil peut nommer une personne nommée l'année précédente. Pour cette raison, aucun avis ne sera fourni au proposeur lui indiquant que la mise en nomination est demeurée sans résultat, ni tout autre raison indiquant le non choix du candidat.



# RAC 2012 CONVENTION

The 2012 RAC Convention will be held in Edmonton, Alberta at Concordia University College of Alberta on **August 10, 11 and 12.**

Complete directions and a map can be found on the Convention website at <<http://convention2012.rac.ca>>. The APRS Icon is CONV2012.

The kick-off on Friday will be the RAC Forum where you can hear what is happening with Radio Amateurs of Canada. Please bring your questions and share your concerns.

On Saturday morning you will be able to see and hear "What's New" at a special forum where manufacturers will present their new products.

There will be a solid program of speakers covering all aspects of Amateur Radio. For example Dr. Gordon Rostoker will explain the solar-terrestrial interaction and how that leads to both aurora and large scale electric currents in the ionosphere and magnetosphere.

There will be technical talks under various themes such as: true digital modes (P25 and variants); contesting and DXpeditions; EME and weak signal work; APRS and Ballooning; PIC programming; Commercial AM and FM Broadcasting technical discussion; and RAC Field Services – Amateur Radio Emergency Services. Industry Canada will be speaking about spectrum management and a Question & Answer session will follow.

Throughout the weekend you will be able to see Dealer Displays, Exhibits and Projects by clubs and fellow Amateurs. Some of the local clubs supporting this convention and partnering with us include the Northern Alberta Radio Club, the Radio Amateur Educational Society, the Quarter Century Amateur Radio Club (QCARC) and the Eagle Hills Amateur Radio Club. The QCARC will be hosting the fleamarket on Saturday.

The Keynote Speaker at the Saturday night Banquet will be Tim S. Ellam, VE6SH, the President of the International Amateur Radio Union, with additional comments from Radio Amateurs of Canada and the American Radio Relay League.

We will have a field trip on Sunday to one of the premier Amateur Radio stations in Canada. The VE6JY site has 80 acres of pure ham radio – some 24 vertical towers. This is a must see.

Included in the registration will be a "Meet and Greet" reception on Friday afternoon, after the RAC Forum. Registration also includes a continental breakfast and lunch on Saturday and a full breakfast on Sunday. Those going to the VE6JY site will be provided with a picnic lunch.

Program schedules and registration information will be posted on the convention website as details are finalized. Keep checking for updates over the next few weeks, but in the meantime please set aside those dates!

The Convention organizers can be reached at <[convention2012@rac.ca](mailto:convention2012@rac.ca)> or by telephone at 780-466-5779 for more information. Please do not contact the main RAC office as all communication will be handled by the RAC Convention committee in Edmonton.

We look forward to your attendance.

J. T. Mitchell, VE6OH – RAC Director AB, NT, NU



## CALL FOR NOMINATIONS: RAC AMATEUR OF THE YEAR AWARD

To qualify for the title "Amateur of the Year", an individual should have made an outstanding contribution to Amateur Radio in the past year, or have contributed consistently to the welfare of Amateur Radio over several years. RAC Directors, Officers and Section Managers are not eligible for the award while in office, and not in respect to their term(s) of office.

***Nominations with supporting documentation are to be addressed to the Secretary, RAC, and received at RAC Headquarters by the close of the last business day of September, for consideration for the current year.***

Selection of the winning candidate will be by majority vote of the RAC Board of Directors based on the supporting documentation submitted with the nomination.

The winning candidate will be notified by mail.

Due recognition will appear in The Canadian Amateur and a suitable plaque will be presented at an appropriate time and place.

## MISE EN NOMINATION : PRIX AMATEUR DE L'ANNÉE DE RAC

Pour se qualifier au titre «Amateur de l'année », une personne doit avoir fourni une contribution hors du commun à la cause radioamateur au cours de l'année qui se termine, ou avoir travaillé substantiellement au bien-être du radioamateurisme depuis plusieurs années. Les directeurs de RAC, dirigeants et gérants de section ne sont pas éligibles au Prix aussi longtemps qu'ils sont en fonction, et sans considération quant à leur(s) mandat(s).

***Les mises en nomination, documentées, doivent être envoyées au secrétaire de RAC de manière à ce qu'elles parviennent au siège social de RAC au plus tard à la fin du dernier jour ouvrable du mois de septembre pour être prises en considération la même année.***

Le choix du candidat gagnant est effectué à la majorité des membres du Bureau des directeurs, basé sur la documentation accompagnant la mise en nomination.

Le candidat gagnant est avisé par la poste.

The Canadian Amateur (TCA) publiera un texte de félicitation et une plaque sera remise au récipiendaire en temps et lieu appropriés.

*Traduction par Claude Lalande, VE2LCF.  
Merci Claude!*

# OTTAWA ANTENNA POLICY: NEW PRECEDENTS FOR AMATEUR RADIO ANTENNA STRUCTURES

**Glenn MacDonell, VE3XRA – President Ottawa Amateur Radio Club  
Deputy Director – Radio Amateurs of Canada North/East Ontario Region**

Ottawa is one of the few cities that has defined a specific consultation process for all antenna systems including those of Radio Amateurs. Ottawa had included personal use antennas in a section of its site plan bylaw developed during amalgamation of the City of Ottawa and several surrounding communities in 2007 and so wanted to ensure the new Municipal Concurrence and Public Consultation Process applied to these as well. Most other municipalities have focused on the larger commercial structures that have prompted the strongest citizen reaction.

The new Municipal Concurrence and Public Consultation Process approved by Ottawa City Council on March 28, 2012 recognizes that Industry Canada is the regulatory authority for radiocommunications and has the power to approve antenna siting. As in all public consultations processes, Ottawa defines certain cases where the proposed project would have little consequence and can be exempted. Through negotiations, Ottawa Radio Amateurs and the city arrived at a set of criteria that provides the city with influence over antenna size and location and, at the same time, allows Radio Amateurs to erect higher antennas without consultation than would be possible using the Industry Canada default consultation process. The criteria do not define what can be built as Industry Canada, not the city, has the power to do this. They do define what can be built easily, without notification or consultation.

Radio Amateurs had spoken out in the development of the 2007 tower antenna section of the planning bylaw but unfortunately this had little influence at the time. The antenna section of the planning bylaw limited Radio Amateurs to one "tower" per lot and required it to be located behind the house or on the rear half of the roof. Ultimately, most Radio Amateurs grudgingly accepted that the city would do what it would do. One Amateur, Ray Perrin, VE3FN, lodged an appeal with the Ontario Municipal Board (OMB) against the antenna section of the bylaw. In addition to technical observations on deficiencies with the Ottawa rules he noted that Industry Canada, not municipalities, had authority over antennas. The city initially ignored all Ray's points and prepared for hearings at the Ontario Municipal Board.

Ultimately, in 2010 the city acknowledged the 2007 Ontario Superior court ruling that the City of Toronto site plan control bylaws

could not be applied to the communications towers. Around that time City of Ottawa staff began work on a Municipal Concurrence and Public Consultation Process but Radio Amateurs, who usually do not track City Council activity, only learned of it in September 2011 when they were offered the opportunity to comment on the proposed Process.

Shortly after this invitation, Glenn MacDonell, VE3XRA, President of the Ottawa Amateur Radio Club, wrote to his counterparts in other local clubs, members of the RAC Executive living in the Ottawa area and others involved in the 2007 consultations, including Ray Perrin, inviting a representative of their organization to participate in a group to prepare a response to the city.

It was important to create a broad-based group, in touch with as many Radio Amateurs as possible to understand their concern and keep them informed about communications to the city and the city's response. Because the group represented the diversity of views within the Radio Amateur community it was able to promote an approach that would be generally acceptable to the community. One of the members – Manotick Radio Group President Gordon Dewis, VE3XGD – created an email server so the participants could easily share information to develop common conclusions and deliver consistent reports to their different groups.

Written and verbal presentations to city staff focused on the differences between the commercial and "personal use" antenna systems as city staff had little understanding of Amateur Radio. This led to a few improvements (for example the limit of one antenna structure per lot was not repeated). Nonetheless, the proposal sent to City Council Committees at the end of February still fell short of what many Radio Amateurs had hoped for. As in 2007, many Radio Amateurs, including members of the group, were prepared to accept the revised proposal from city staff as its content was not far from the default Industry Canada consultation process. However, the group ultimately agreed with members making presentations to municipal politicians, not just staff.

Three members of the group – Glenn MacDonell, VE3XRA, Ray Perrin, VE3FN and Andy Hart, VE3NVK – delivered presentations to the Ottawa Planning Committee at the end of February. These presentations led to the most significant changes and set the course for the final outcome.

Glenn's presentation focused on the value of Amateur Radio to the community referring to the roles Amateurs have played in emergencies such as the 1998 Ice Storm, community public service events and educational activities (two museums have Amateur Radio stations and several schools have had a chance for their students to talk with astronauts).

Ray and Andy pointed out problems with the proposed exemption criteria that would require consultations for many nearly invisible antenna systems. They argued that by creating a needlessly onerous process, the city would discourage prospective Amateurs and limit the resources needed for these public service events. The presentations were factual and polite, noting that the problems were likely unintended and offering to help resolve them.

We were pleasantly surprised at the positive reaction from several local politicians. One City Councillor – who represented Andy Hart's ward and had received an email from Andy before the meeting – asked several friendly questions, even leading him to make a point to the Committee he had made in his email but skipped over in his presentation.

At the end of the discussion the Committee Chair asked city staff if they thought a face-to-face meeting with us would be productive, noting that the city didn't have concerns over "wires in trees". City staff agreed to meet with us.

After the Committee meeting another City Councillor we had not contacted came over to us, encouraged us to work with the city staff and offered to move an amendment proposing changes we wanted if we were not successful with city staff! She said she had been very impressed by the presentations and spoke with other councillors who agreed that something should be done to address our concerns.

We were amazed at the support and only learned several weeks later that she had been invited to a Field Day organized by the local QRP group in a park in her ward the year before and had been impressed by the Radio Amateurs and what they could do.

Glenn and Ray made another set of presentations to the Agricultural and Rural Committee two days later and received a similar response. The Chair of that committee said that he was aware of the work Ottawa Radio Amateurs had done during the Ice Storm and also that he had attended a session in a school in his ward where Radio Amateurs helped students talk with an astronaut on the International Space Station.



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Meetings with city staff confirmed that their focus was on how antenna structures affected the look of a street. They were particularly concerned with large antennas in front of houses on small urban lots. They did not want to allow towers even less than 15 metres in front of a house without the proponent advising the city and immediate neighbours and considering their comments.

We noted that the Industry Canada process allowed antennas up to 15 metres anywhere and that, while municipalities can create additional exemptions, they should not be more limiting except for exceptional circumstances such as sensitive areas – all urban areas didn't seem exceptional to us. We suggested using a carrot rather than a stick: encourage Amateurs to locate antennas where the city wanted them by allowing greater height without requiring consultation. They would have much less visible impact and a height increase would not make a significant visual change. We noted that RAC had proposed 21 metres in urban areas and 31 metres in rural areas in the consultation that ultimately led to the present IC Client Procedures Circular (CPC-2-0-03).

We were focusing on what could be built immediately without consultation – to make it as easy as possible to erect an antenna system. Ottawa proposed a simplified consultation process for residential systems – something Industry Canada had not done. Amateurs who wanted higher structures could still go through the consultation process and would likely be approved if they had good arguments for why they needed the additional height. Industry Canada tends to rule on what is required for the desired service – consultation is required but not approval from those consulted.

After two 2-hour meetings we reached agreement with city staff on a revised design and siting criteria that if met would exempt antennas from public consultation. The process recognizes that location and scale are important and so has more relaxed requirements on larger lots and for locations like the backyard where the

house will screen much of the antenna from view. On larger lots and certain locations on smaller lots, antennas higher than the Industry Canada 15 metre exemption limit can be erected without consultation under the Ottawa process. Most notable was the agreement that antennas as high as 18 metres could be built on urban lots without consultation if located behind the house and as high as 29 metres on large (greater than one acre) lots. This process applies to all of the 2800 square kilometre City of Ottawa. We are not aware of any city in Canada that has set up a similar system. The detailed Site Selection and Design Guidelines that specify what must be met for an antenna structure to be exempt from consultation are provided in the right column.

The Chair of the Planning Committee presented the agreement between city staff and Radio Amateurs as an amendment at the City Council meeting. It prompted significant discussion and was approved with only one councillor from a suburban area asking to be recorded as objecting to one of the criteria that allowed an antenna structure in front of a house.

The final part of the story was the deletion of the tower antenna parts of the Ottawa site plan bylaw. City Council decisions on March 28 noted that the earlier antenna section of the site plan bylaw would be removed and replaced by the Process. The actual mechanism for this was the Ontario Municipal Board Decision issued on May 4, 2012 on Ray Perrin's appeal. The OMB decision recognized that regulation of antennas falls under federal jurisdiction and ordered "that the appeal is allowed and Section 120 of Zoning Bylaw 2008-250 of the City of Ottawa is repealed". The new Process took effect on April 28, 2012. We will monitor its implementation and after a year advise the city if further changes are required.

We have learned a lot through this process and would be willing to offer advice to any Radio Amateur group in similar circumstances.

## REFERENCES:

Industry Canada Client Procedures Circular, CPC-2-0-03 – Radiocommunication and Broadcasting Antenna Systems: [www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08777.html](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08777.html)

Ottawa staff proposal as submitted to Committees at the end of February – <http://ottawa.ca/calendar/ottawa/citycouncil/occ/2012/03-28/arac/05%20-%20ACS2012-ICS-PGM-0045.htm>

Ottawa City Council Decision, March 28, 2012 – <http://ottawa.ca/calendar/ottawa/citycouncil/occ/2012/03-28/englishminutes31.htm>

## Ottawa Site Selection and Design Guidelines: Residential Use Antenna Systems (RUAS)

*"The purpose of these guidelines is to encourage the development of RUAS in a manner which mitigates the visual impact on the adjacent property owners."*

A proponent of an RUAS proposed on a lot **less than 1 acre** in size should ensure the RUAS:

- a) If located within the front yard:
  - i. Contains only a self-supporting (non-guyed) mast or pole with a diameter no greater than 3 inches at its widest point and used solely for a wire antenna;
  - ii. is less than 15 metres in height; and,
  - iii. is set back at least 1.5 metres from all lot lines;
- b) If located within a side yard, including the extension of a corner side yard into a rear yard:
  - i. is set back at least 1.5 metres from all lot lines;
  - ii. is less than 15 metres in height; and,
  - iii. does not consist of a guyed or lattice tower, unless the tower abuts and is attached to the principal building;
- c) If located within the rear yard, excluding the extension of a corner side yard into a rear yard:
  - i. is less than 18 metres in height; and,
  - ii. is set back at least 1.5 metres from all lot lines if less than 16 metres in height; or
  - iii. is set back an amount equal to a quarter of its height if 16 metres or more in height; and,
- d) A wire antenna, not including a tower, need not comply with (a) through (c) above
- e) if located on the roof of the principal building:
  - i. is less than 16 metres in height, and if 15 metres or more in height:
    1. is located on that half of the roof closest to the rear yard; and,
    2. is setback from all lot lines at least 1.5 metres; or
  - ii. if the building is greater than 3 storeys in height, the RUAS does not exceed a height equal to 25% of the existing height of the building.

A proponent of an RUAS proposed on a lot **at least 1 acre, but less than 5 acres** in size should ensure the RUAS:

- is no higher than an amount equal to the lot width to a maximum of 29 metres;
- if it includes a guyed or lattice tower, is located outside of the required front yard; and,
- is set back from all lot lines an amount equal to a quarter of its height;

A proponent of an RUAS proposed on a lot **5 acres or more** in size should ensure the RUAS is:

- no higher than 29 metres; and,
- setback from all lot lines an amount equal to a quarter of its height.

## NOTICE TO RAC MEMBERS RESIDING IN ATLANTIC, BRITISH COLUMBIA/YUKON, MIDWEST AND ONTARIO NORTH/EAST REGIONS

### Call for Nominations of Candidates for Regional Director to serve on the Board of Directors of Radio Amateurs of Canada Inc.

The Secretary of Radio Amateurs of Canada Inc. hereby solicits nominations for the positions of Director for the Regions of Atlantic, British Columbia/Yukon, Midwest and Ontario North/East (postal codes K and P). Elections for these positions will be held in October 2012 to take office on January 1, 2013 for a two-year term.

#### Incumbents:

**Atlantic:** Everett Price, VO1DK

**British Columbia/Yukon:** William (Bill) Gipps, VE7ISV/VE7XS

**Midwest:** Derek Hay, VE4HAY (Not seeking reelection)

**Ontario North/East:** Bill Unger, VE3XT

#### 1. The Candidate:

- ✓ must be a Full Voting Member of RAC
- ✓ must have reached the legal age of majority
- ✓ must reside in the Region for which he or she is nominated

#### 2. A candidate may not nominate himself/herself.

#### 3. The nomination form will:

- ✓ be printed or typed
- ✓ clearly indicate the candidate's name, call sign and RAC membership number
- ✓ clearly indicate the names, call signs, RAC membership numbers and original signatures of ten (10) or more full voting members of RAC

#### 4. The nominators must have reached the legal age of majority and must reside in the same Region as the candidate whom they are nominating.

#### 5. Each candidate must:

- ✓ sign the nomination form, indicating a willingness to be nominated
- ✓ include with the nomination a brief biographical sketch/CV limited to 500 words succinctly setting out his/her background and qualifications. A candidate choosing to submit a biographical sketch in both English and French languages will be allowed 500 words in each language. The biographical sketch will not include any campaign platform material.

#### 6. All original nominations and supporting documentation, including the biographical sketch, must be received by the Secretary of RAC at the address indicated on page 31 by 3 pm on Tuesday, September 4, 2012.

It is suggested (but not required) that the nomination forms be sent by registered mail.

#### Faxed or emailed documents will not be accepted.

- ✓ Clearly indicate on the mailing envelope that Nomination Documents are enclosed.

## AVIS AUX MEMBRES DE RAC RÉSIDANTS DANS LES RÉGIONS DE : ATLANTIQUE, COLOMBIE-BRITANNIQUE/YUKON, MID-OUEST ET ONTARIO-NORD/EST

### Appel de mises en candidatures pour le poste de directeur de région siégeant au conseil de direction de Radio Amateurs du Canada Inc.

Le Secrétaire de Radio Amateurs du Canada Inc. sollicite des candidatures pour le poste de Directeur pour les Régions de l'Atlantique, la Colombie-Britannique et le Yukon, le Centre Ouest et l'Ontario-Nord/Est (codes postaux K and P). Des élections pour ces postes se tiendront en octobre 2012 pour prendre effet le premier janvier 2013 pour un terme de deux ans.

#### Candidats sortants :

**Atlantique :** Everett Price, VO1DK

**Colombie-Britannique et Yukon :** William (Bill) Gipps, VE7ISV/VE7XS

**Mid-Ouest :** Derek Hay, VE4HAY (Ne cherche pas à se faire réélire)

**Ontario-Nord/Est :** Bill Unger, VE3XT

#### 1. Le candidat :

- ✓ doit être membre en règle de RAC
- ✓ doit avoir atteint l'âge légal de la majorité
- ✓ doit résider dans la région pour laquelle il est mis en nomination

#### 2. Un candidat ne peut se nommer lui-même.

#### 3. La formule de mise en nomination devra :

- ✓ être dactylographiée ou imprimée
- ✓ montrer clairement le nom du candidat, son indicatif d'appel et son numéro de membre chez RAC
- ✓ montrer clairement le nom, l'indicatif d'appel, le numéro de membre RAC et les signatures originales d'au moins dix (10) membres en règle de RAC

#### 4. Les nominateurs doivent avoir atteint l'âge légal de la majorité et demeurer dans la région du nominé.

#### 5. Chaque candidat doit :

- ✓ signer la formule de mise en nomination, indiquant son accord d'être mis en nominé
- ✓ inclure avec la nomination une courte note biographique/CV, limitée à 500 mots, décrivant succinctement ses antécédents et ses qualifications. Un candidat qui désire soumettre sa biographie en anglais et en français se verra alloué 500 mots dans chacune de ces langues. Les notes biographiques ne devront inclure aucun élément de la plate-forme électorale.

#### 6. Tous les documents originaux de mise en candidature et les documents reliés, incluant la note biographique, devront être reçus par le Secrétaire de RAC à l'adresse indiquée sur la page 31 d'ici 15h00 le mardi 4 septembre 2012.

Il est suggéré (mais pas obligatoire) que les documents de mise en candidature soient expédiés par courrier recommandé.

#### Les documents expédiés par courriel ou par télécopieur ne seront pas acceptés.



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- Associate – US \$90
- Associate International – \$130
- Associate – Corporate \$150
- Associate – Corporate International \$350



- ✓ The envelope will be held unopened until after the closing deadline of September 4, 2012. After this date, the Election Committee, under the supervision of the RAC Secretary, will open all submissions, review the documentation for accuracy, completeness and validity, and then announce the results of the Call for Nominations. The decision of the Election Committee is final.

- ✓ Should a balloted election be required in any of the regions, ballots will be mailed from RAC Headquarters on or before October 1, 2012.

Nominations must be sent to the following address:

Secretary, Radio Amateurs of Canada  
 720 Belfast Road, Suite 217  
 Ottawa, ON K1G 0Z5

Clearly indicate on the envelope "Nomination Documents".

- ✓ Indiquez clairement sur l'enveloppe qu'elle contient des formules de mise en candidature.

- ✓ L'enveloppe restera scellée, jusqu'après la fermeture des mises en candidatures du 4 septembre 2012. Après cette date, le comité électoral, sous la gouverne du secrétaire, ouvrira toutes les candidatures soumises, et vérifiera la documentation quand à sa validité, son exactitude et sa complétude, et annoncera ensuite le résultat de cet appel de mises en candidatures. La décision du comité électoral sera finale.

- ✓ Si une élection était requise dans l'une des régions, les bulletins de vote seraient postés du quartier général de RAC le premier octobre 2012 ou avant.

Les mises en candidatures doivent être envoyées à l'adresse suivante :

Le secrétaire, Radio Amateurs du Canada  
 720 Chemin Belfast, Suite 217  
 Ottawa, ON, K1G 0Z5

Indiquer clairement sur l'enveloppe « Documents de mise en candidature ».

# HOW TO BECOME A BETTER CONTESTER

Tom Haavisto, VE3CX

When we look at the scores the top competitors are able to post, many of us are in awe of their operating skills. Just how did they get to be so good, and how can we join their ranks? While I am not a top competitor, I have been able to turn in a few top scores over the past few years. At the same time, my scores have been steadily improving. Some of the ideas presented here may fall into your "Do not apply" category, but hopefully everyone will find a few tips that may be useful. This is not meant to be a comprehensive list, nor an exacting tutorial. No doubt, some contesters have found different techniques or have been able to refine the ideas presented here. Feel free to use ideas that work for *you* and refine the techniques that apply to your circumstances.

The first thing we need to keep in mind is that during a contest, an operator and the station they are using come together as a single entity. The call sign being used represents both the operator *and* the equipment, working together. You may be a guest operator at a multi-multi station or you may be operating from your own station. Poor shack design can lead to operator fatigue, errors and a lower score. Good shack design will help promote operator comfort and a higher score. In our quest to "do better" we need to examine both parts of the equation.

On the operator side, let's start by imagining your favourite athlete. Who they are is not overly important – male or female, past or present, living or dead. Imagine your athlete doing their thing, the intensity on their face and their absolute focus on doing their best – focusing on the task at hand as they work their magic. What are they thinking about at this moment? Yesterday's lunch, the weather, putting a new roof on the house, or focusing on the task at hand? This is what we need to do: put all those distractions aside and focus on the task at hand.

Ok – we need to focus. What else is needed? How about raw ability? Some folks have a natural aptitude for their sport and are gifted that way. Chances are they also started at a young age. Once these traits came to light, they honed their skill set over a period of years. Along the way, they learned from their mistakes and probably took a few lumps along the way. No one expects that a top athlete just picked up a hockey stick or golf club, dove into a pool, or laced up their runners to become an instant success.

Just as with our favourite athlete, can the same not be said of the top contesters in our ranks? We all have the raw ability to make QSOs or else we would not have joined the ranks of Amateur Radio. Contesting is not a physically demanding sport so it is open to everyone, of

every age and ability. While turning in top scores may be desirable for some, it is not a requirement to participate. The goal here is to discover what separates us from the top contenders and to identify the skills we need to work on to improve our efforts. At a minimum, we need to improve upon our past efforts, and ideally join the ranks of the top contesters.

We need to appreciate that top athletes and contesters alike need to practice in order to perfect their skill set, and to stay on top of their game. No doubt, you have heard the old adage "Practice makes perfect". This applies to contesting just as any other skill we are trying to master. We need to practise our Amateur Radio contesting skills between contests so that we can perform better during a contest. So how do we do that? The obvious answer is: we need to spend time in the shack, listening to the radio. And we need to remove obstacles that keep us from our goal. Since this is Amateur Radio and not a moneymaking occupation, we need to put this activity in perspective with the other demands on our life. While it would be nice to be retired and able to pursue this activity full-time, we need to balance radio time with work, family and other non-radio related activities. When striking that balance, we do need to spend *some* time in the shack perfecting our skill set if we truly wish to do better.

## GETTING READY

As you sit in your shack in your operating chair, ask yourself – are you comfortable? One fellow I spoke to indicated he is afflicted with "numb bum" and it sets in after a few hours of sitting in his chair. That being the case, if you are unable to



Tom Haavisto, VE3CX, operating from Gary Spence, VE2GK's ham shack.

sit at the operating position for hours with no contest going on, how do you expect to do this during a contest? A good, comfortable chair is not simply a good idea; it is an investment in your overall Amateur Radio and contesting experience. A good office chair only costs a few hundred dollars and will make a world of difference. If you are on a tight budget, a used office chair will be fine. An office chair is designed to sit in for long periods of time – exactly what we are looking for.

If you work in an office environment, or if you have even visited an office, you may have noticed that not everyone has exactly the same chair. Some have high backs, casters, armrests and they carry a wide variety of price tags. When you go shopping, find one that fits *you*. Your chair should be comfortable and promote good posture. It will come with an instruction manual highlighting the various adjustments. Spend a few minutes to make sure it will do the job we expect of it – staying in touch with your butt. Staying in the operating chair will probably make the biggest impact on your score – perhaps more than any other suggestion offered here. Choose a chair accordingly.

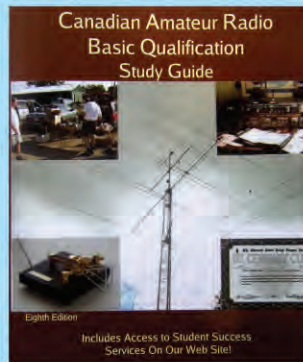
Now that we are comfortable sitting in the shack, look around and see where you will be "working". A comfortable work environment will help us focus on our objective of doing better and now would be a good time to make adjustments to make that happen. Is your radio within easy reach? Can you see the controls clearly? How about antenna switches? Do you have to get up to make adjustments?



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How is the lighting? Anything that takes your butt *out of the chair* is fair game for improvement and will affect your score.

As part of our "butt in chair" strategy, good ergonomics in the shack will help: radio interfaced to the computer; monitor at eye level in front of you; and keyboard in a keyboard tray or on the desk promoting good hand position. It should be easy to move your hands from the keyboard to the radio and back again without having to reach. If you still have a CRT monitor, or a small flat panel, newer screens are both inexpensive, and easy to mount. Larger monitors can do wonders as far as available screen real estate goes. For some time I used two monitors in order to display all the information I wanted to have available while contesting. A recent upgrade to a 22-inch LCD allowed me to revert back to one monitor, meaning I don't need to keep moving my eyes back and forth between two monitors. As a bonus, the new monitor has a sharper image and can be run at a higher resolution. This allows more information to be displayed on a single screen.

Along with making a comfortable workspace for ourselves, we should also consider what we *wear* when contesting. At a seminar a few years ago, the speaker commented how he has his favourite sweat pants and hoodie that he wears

while contesting. He referred to this as his "Superman suit". There are two things to consider here. First is our state of mind. For him, the "Superman suit" was like a switch in his brain. Don the suit – become a better contesteer. The other thing has to do with sleep deprivation. When staying up all night, many folks find that they tend to get quite cold just before their normal waking time. This is when you are least alert and will make mistakes. My experience has been that pulling the hoodie over my head and extending the sleeves helps keep me warm. Granted, not everyone stays up all night contesting, but I found this helped.

There is lots of information available on the Internet about sleep deprivation so we will just touch on it briefly here. Our normal sleep pattern works in roughly a 90-minute cycle. If you plan on putting in extra hours on the radio (staying up late or getting up early), adjust your sleep times to be roughly 90 minutes in length, or multiples of 90 minutes, with some consideration for your normal bed time/ waking time. I find I can stay up an extra three hours past my normal bed time, sleep for 90 minutes and wake up fresh – ready to go. When the contest is over, I can crash and catch up on much needed sleep. If more sleep were needed, I would take an additional 90 minutes. To help promote falling asleep quickly/waking up

fresh, follow your normal bedtime/rising routine. Keep the shack *bright* when you get started again – this will help fool your body into thinking its morning – time to be wide-awake. Off times should ideally be planned when they will do the least amount of damage to your score. Falling asleep on Saturday afternoon when the bands are wide open should be avoided. As with other contesting related activities, this is going to take a few tries to figure out what works best for you and your personal circumstances.

Avoid the "Five Hour Energy" drinks and pills. They tend to be loaded with caffeine and sugar. Sure they keep you awake, but they also tend to affect your ability to stay alert. When you want to sleep, you can't. Instead, drinking coffee, Gatorade and water are better choices. They keep you hydrated. The downside of taking in too many liquids also means they want out at some point. This too will affect your score. Some folks have installed a fridge – either in the shack or close by – with fruit, yogurt, sandwiches and other easy to digest food. Ideally, within easy reach to help us stay in the chair. Drinking alcohol during a contest should be avoided – save it for the after contest celebration.

Now that we are comfortable with our chair and "working environment", let's focus on improving our listening skills.



How do the bands sound? Are they noisy? Are there certain times of the day when you can hear stations from certain parts of the world?

We need to be able to recognize call signs and their beam headings, just from their prefix. While this may sound obvious (it is), listening is an important skill that needs to be refined.

There is an old adage, "You can't work 'em if you can't hear 'em". On phone, everyone has an accent and we need to develop our listening skills to understand what they are saying, quickly and accurately, even if they are slightly off frequency. On CW, some Amateurs use a hand key and others use a bug or paddle, while most use a keyboard/computer generated CW. There are variations in timing – we can think of this as an accent as well – and we need to develop our listening skills to quickly and accurately copy what they are sending. At this point, we are listening under "ideal" conditions – not a lot of QRM from other stations – and if we don't copy the other station one hundred percent, it's not a big deal. Things move along at a leisurely pace, and there are multiple opportunities to copy a call sign if they are engaged in a ragchew.

To further develop our listening skills, start listening to pileups. Our focus at this point is not so much to see if we can crack the pileup, rather to listen. Listen to the DX station and how he is handling things. Is he able to quickly and easily copy calls, moving along at a steady pace? Or is he struggling with every call, only able to pull out one or two letters at a time? What we are working on here is our ability to pick out complete call signs at once and imagine their beam heading just from their prefix. We can let the other guy manage the pileup for now – we are just here as observers. One thing you will notice is that some people have more fully developed their listening skills; they are able to pull complete call signs with ease and manage their pileups effectively. Others will struggle to pull one call, go by numbers, chitchat for a bit with every station they work, etc. Imagine this is a contest – which type of operator do *you* want to be? Who would turn in the better score?

As we continue listening, our abilities will improve. So let's make things more difficult. Your radio has a second VFO and you should be able to listen to two frequencies at once. Let's try that. It will be an odd sensation the first time you try it, but it is a skill we need to practice. Ideally, you should be able to listen to two QSOs (one in each ear) and follow both by mentally focusing first on one conversation and then on the other. This is *not* an easy skill to master. You may not



**VE3CX operating at the W0AIH Contest Station in Wisconsin ([www.qth.com/w0aih/](http://www.qth.com/w0aih/)).**

need two radios: the radio you already own will be fine as long as you can listen to two frequencies at once. In an actual contest setting, there will be QRM. You can think of the other conversation as providing extra QRM in a non-contest setting. In a contest, we can use both VFOs to hunt for QSOs – clearly a useful skill that will help put more QSOs in the log. Just as our top athletes hone their skills between competitions, we need to hone our ability to listen between contests. They *will* be tested during a contest.

Stereo headphones with both ears covered are preferred, with a microphone attached to the headset. We want to hear the radio (and *only* the radio) when contesting, and if you have to move your head slightly, the mic should always be in the right position. Some folks (non-contesters) seem to prefer hand mics, but consider this: you need to use one hand to key the radio and hold the mic. This means you cannot "talk and type". For this reason, a foot switch is preferred. This allows you to key the radio and use both hands for more important things – working the radio and keyboard. If you have done any amount of contesting, you have already realized that voice and CW keyers are a must, ideally handled by the computer. Using the built-in soundcard in your computer makes for an inexpensive voice keyer solution. Few of us would make it through a 48-hour phone contest without a voice keyer. For CW contesting, using a paddle means taking your hands away from the keyboard. Computer generated CW is the norm in contests and the only time a paddle is used (if ever) is to fill in missing information.

You should also spend time with your contesting software. There are several excellent packages and my personal favourite is N1MM. N1MM comes highly recommended, supports every combination from single-op to multi-multi, and supports every contest. Others have different preferences, such as Win-test, TR4Win, Writelog, etc. Find a software package that works for you. The good news here is that most use the same basic keystrokes to perform similar tasks, such as the F1 key to initiate a CQ.

This will make the job of switching to a different program a bit easier so time learning one won't be wasted if you need to change to another. In addition, if you end up at someone else's shack in the future, learning a different package will be a bit easier. While we don't need to master every nuance of the software, we should be familiar enough with its basic functionality to help make the job of putting QSOs in the log second nature. We also need to appreciate that modern software is complex. Not that this is a bad thing, but initially it can seem overwhelming. As you get more comfortable with your software package, go back and read the manual again. Once you are familiar with its basic functionality, you will start to discover it has more advanced features that you can take advantage of.

Next, spend some time chasing DX. If you have an amplifier, leave it off and practice your pileup busting skills running barefoot. If you normally contest barefoot, try reducing your power to make things more difficult. High power can sometimes mask poor operating skills. We want to focus on



being a better DXer at this point, honing our pileup skills. If you have trouble getting through, and become frustrated, resist the temptation to return to your "normal" power level. The trick is to figure out what you need to do to navigate the pileup and develop your operating technique. If the DX station is running split, use your second VFO to find the station he is working and tail end when he is done. Try to image *you* are the DX station – which way would *you* be moving your VFO to find the next caller? Up in frequency or down. The trick here is you don't need to be the loudest station in the pileup – all you need to do is transmit where the DX station is listening *now*. This is very much a hands-on exercise and it is dependant on the DX station, operator skill, conditions, etc. Top contesters also just happen to be great DXers and this should not be taken as a coincidence.

When listening to the bands, it can be helpful to have the Grey Line Map displayed on your monitor. This will help visualize where the sun is and the path our RF signal needs to travel. Are we traversing the day/night boundary? The Grey Line Map has greater effect on the low bands and you will notice enhanced propagation where one end of the path is entering/exiting darkness. It can also affect propagation on the high bands – especially 10 metres. Once the sun has been illuminating the ionosphere for a few hours, the Maximum Usable Frequency (MUF) will be higher. If the path is in darkness, the MUF will go down. There is a lot of information about the Grey Line Map on the Internet and in ON4UN's *Antennas and Techniques for Low-Band Dxing*. As a quick reminder, as we transition from day to night we will experience enhanced conditions of the lower bands – 40, 80 and 160 metres. The Grey Line Map can help us visualize what is happening and what band we should be on to take advantage of these enhanced conditions.

Do you need more or different antennas to make your operating time more productive? Now is the time to work on that as we won't be installing antennas when the contest is on. Remember the old adage: you can never have too many antennas! Those living on a city lot will have different challenges than those with more property. But even if you live on a city lot, consider having more than one antenna available. A vertical – even a multi-band trap vertical – in addition to your beam is certainly worth considering. What happens during a contest if your beam is pointed the wrong way? Sure, you can swing the beam, but a quick check on the vertical just might be all that is needed.

## ABOUT THE AUTHOR

"I got my licence in 1974 at age 16, and passed the Advanced exam a year later. I started chasing DX and found that on contest weekends there was lots of DX that was easy to work, and so began a lifelong interest in contesting. I moved to Kaministiquia in 2006 in order to finally build the contest station I had been longing to build and operate. The station is equipped with a variety of monoband antennas. I am in the process of building a new shack that should be ready to go for the upcoming contest season.

I have completed 5BDXCC as well as DXCC on 17, 30 and 160 metres. I have completed the ARRL Worked All States on 160 to 15 metres and I am waiting for 10 to come back to life to complete the 5BWAS. I recently received the ARRL Triple Play award. I have won the RAC Winter and Summer contests a few times, and the Ontario QSO Party a few times as well. I am a member of Contest Club Ontario, and most weekends when there is a contest on, you will find me on the bands, busy making QSOs."

Ideally, everything in your shack should be documented. Where the splices are located, antenna settings, types of coax, and on down the line. You should also test things out *before* the contest starts and compare them to previous readings. Has the SWR curve of your antenna changed since you last checked it? If you have followed some of the comments posted on the 3830 reflector, you will have read stories of "this broke, that blew up", etc. Chances are the item in question was close to failure anyway and the operator just happened to notice the issue when he needed it most – during the contest. Had the operator checked things out a day or two before the contest, the outcome would have been different. There would have been time to repair the problem, change categories (single band instead of all band), etc.

You should be able to select any available antenna. It should be resonant and ready to go when selected. Fiddling with an antenna tuner is going to waste time during a contest – exactly what we are trying to prevent. Everything should be clearly marked with easy-to-read labels. During a contest, we want to concentrate on putting QSOs in the log. Having to stop and think "OK, I need to do X, then Y to select antenna Z" is going to interrupt your concentration.

We also need to make sure – especially if we are tired – that the overall design of the shack will prevent mistakes from happening, or if mistakes do happen, stuff won't get blown up. Some folks use two radios for contesting – it would be a disaster if you connect both radios to the same antenna at the same time. One of them will soon suffer from a blown front end. There are antenna switches that will keep this from happening. These are the types of things we need to employ to make sure this won't happen – even if we are tired. If you will be using an amplifier during the contest, this would be a good time to put "quick tune" settings on it, assuming a manual tune amplifier.

Ideally, you need to be able to sit in your operating position for hours at a time with everything in easy reach. You can also finetune it for speedy band changes where you can select the antenna you want to use, change bands, tweak the amplifier, and you are good to go.

Which would you prefer: five minutes to change bands, get out of the chair, switch antennas, adjust the antenna tuner, tune the amplifier, etc. Or – zip, zip, zip – done in 30 seconds or less? Keep in mind, the five minutes it takes to change bands means zero QSOs in the log.

As you work on improving your station, remember that a dB is a dB, regardless of where it comes from. For example, we can pick up an extra dB by installing a larger antenna. Or using heliax (hardline) instead of RG-213. These are not inexpensive ways to improve your station, but every bit helps; perhaps more radials under the vertical or installing a separate low band receiving antenna. In some cases, we can also pick up an extra dB of improvement by setting up the radio correctly. Positioning the microphone correctly and setting the drive level to what is required by the radio. Good audio helps and even small improvements will help our overall score.

As we make improvements in the shack, we want to focus on several objectives. First, it needs to be comfortable and it needs to be fast. Anything that breaks our concentration will take away from being fast, and now is the time to look at it with a critical eye.

Contesting consists of performing the same task, over and over again. Sure there are different antennas and different bands, but ultimately the goal is the same: putting QSOs in the log, *fast!* Practise making it fast and smooth. Distractions break your concentration, force you to stop what you are doing and take away from that fast and smooth operation. Ultimately, every distraction will contribute to lower scores.

*Stay tuned for Part 2 in the next TCA...*

# QUA — A TOPICAL DIGEST

## BEST TAKE-OFF ANGLE FOR DX ON 160

Every once in a while the question pops up about optimum “take-off angle” for working DX on 160, and it usually develops into a difference of opinion(s) on just how low an angle can be achieved (to the far field) with a vertical fed against a substantial field of radials, buried or elevated. As with any other discussion about antennas, much of the argument is based on modelling and inevitably someone questions the validity of any model when the near and far effects of ground are parts of the real picture.

K2AV contributed this posting to the Topband Reflector, so close to my own feeling that I am happy to pass it on:

*“One really needs to evaluate the usefulness of 5 degrees and under on a case-by-case basis. Most people in populated areas have 5 degrees completely obliterated by conductive and semi-conductive clutter... houses, trees, overhead powerlines, buildings, yada yada. And probably 10 and 15 degrees are obliterated as well. And unless you are someplace where they talk about big sky or on a mountain top, you are most likely NOT in a completely flat place, so plus 5 degrees (85 degrees below zenith) is beneath the horizon on at least half your compass.*

*Not only that, if I'm reading it right, the math of ground wave DEPENDS ON, REQUIRES monolithic uniform dirt, both over distance and to depth, to support to the level of those good numbers. Those who have their gold standard radial fields out in open meadows with vistas low to the horizon surely WILL reap the rewards of their gold standard labors, no argument, and you WILL be able to find that small bump up at the low low angles that the far field plot does not show.*

*BUT you are talking about gnats on the windshield of Queen Elizabeth's Rolls Royce. Great, wonderful, if you got that kind of stuff. But Average Joe Ham in the usual clutter of urbia and suburbia, with dirt over land fill rubble in his building plot, full of rocks, sand and whatever else, and with an average conductivity of 0.5 milli-Siemens, if even that, will never see such a bump up from ground wave. He will be quite fortunate to have vertical angles of 10 or 15 degrees in play, forget 5, and maybe not even the ten. For him the ground wave discussion is angels on the head of a pin.*

*BL&E [George Brown et al] gave their study conductivity limits as between 20 and 100 milli-Siemens !!! And the photographs in the IEEE synopsis show black dirt, and absolutely flat out to well beyond a mile. Just simply do not bother to extrapolate those circumstances downward to Joe Average Ham in Levittown. OF COURSE BL&E had a ground wave. They better have. [because it was a study for Broadcasting station operation – VE7BS] And again, SO WHAT?...*

*The thing that will get Joe Average Ham going is how to design a counterpoise that is NOT LOSSY in just plain awful dirt. Everything else is so what. How many of you guys out there have uniform outward and to depth 30 milli-Siemens dirt and can see the low horizon from your back yard? Forget it. Get rid of loss in your counterpoise. Do that first, do that before you even THINK about doing anything else.”*

I (VE7BS) am as biased (prejudiced) as anyone else, but unless 160m signals diffract over mountains, which isn't likely, I know nothing arrives at my antennas from below 10 degrees or so, because my horizon is above that in every direction; in most directions the horizon is above 20 degrees. But by choosing my times of operation to fit the probabilities predicted by my old and respected friend NM7M I have worked my share of 160 DX. No point in firing into the mountainside even if I believed the low-angle radiation goes that far.

So for me, around sunrise, targetting the Pacific, 15 to 25 degrees take-off is my aim. I am convinced that just at sunrise, some signals arrive from even higher angles, and super-efficient monopole-plus-big-radial-field systems would have missed them.

## HINTS AND KINKS

The 18th edition of *Hints & Kinks for the Radio Amateur* is a compilation of the items that appeared in *QST* between January 2005 and December 2011. The 11 chapters cover Equipment, Batteries and Power, Mobile and Portable, Software and Computers, Troubleshooting, Restoration, Construction, Antenna Systems, Operating, Around the Shack (uncategorized but a very interesting potpourri) and RFI/EMI.

There are also some useful pages on metric conversions (I see the US uses the rod – a rod squared equals 30 ¼ square yards. I didn't know this still exists outside the “old country”), Schematic Symbols and a List of Abbreviations.



Bob Eldridge, VE7BS  
920 Erickson Road  
RR2 Pemberton, BC  
V0N 2L2  
E: ve7bs@rac.ca

Always a fascinating collection and a tradition in the hobby.

Soft cover 170 pages. ARRL #5200. US\$22.95. The following are examples of some of the Hints and Kinks you will find in the book.

## Benzoin Helping Velcro

It is sometimes difficult to get Velcro to adhere to some plastics (for example the dashboard of an automobile). N8SUA, a Practical Nurse, draws attention to “tincture of benzoin”, a plant gum dissolved in alcohol. It is available on demand in the pharmacy, costs a few dollars but a few ounces lasts a long time. It is easily cleaned up with rubbing alcohol. It is used in the hospital to ensure that dressings stay put on a patient, but works fine just about anywhere.

Apply some to the surface you wish to use for hanging something such as a control head or a microphone. When the alcohol evaporates, it leaves behind a sticky patch for the velcro and the velcro stays put for a long time.

## Battery Terminal Corrosion

When your mobile equipment acts strangely when switching on, or when trying to transmit, it may very well be a high resistance connection somewhere in the DC power supply chain. More often than not it will be corrosion at a terminal. If a check of the battery itself – making sure the battery terminals and connectors are clean (and greased while you are at it) – does not solve the problem it is easy to forget that there is also a power distribution block under the hood. This block is usually not checked when you or your auto service technician is making a routine maintenance check.

Whether or not the connection is clean and corrosion-free, now is a good time to see that it is protected from corrosion, preferably with a light coating of an antioxidant. The same applies of course to the connections on and around the battery itself.



## TRYLON TOWERS

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## MORSE ANAGRAM

You may not consider this a particularly important discovery, but for what it is worth, if you rearrange the letters of "THE MORSE CODE" you can get "HERE COME DOTS" (courtesy of the NSARC's (North Vancouver) "Contact" newsletter).

## RERADIATION OF A RECEIVED SIGNAL

Some time ago we had a flurry of ideas relating to what happens when an incoming signal is intercepted; is it sucked up? etc. There were differences of opinion on how much of the signal is reradiated (scattered). The subject is still under discussion, and here is an interesting view from G3NOQ.

*"It is right that not every antenna scatters exactly half the incident power, but it happens to be true for dipoles and monopoles, and probably many other simple antennas. It's easy to show that is the case because the current in the elements, which of course flows through the load, also flows through the radiation resistance. So the scattered power exactly equals the load power for a perfect match. You can see from the same argument that it also applies to a Yagi."*

*All the available power (not all the power) goes into the matched load, using 'available power' in the sense of the maximum power theorem.*

*The circuit approach is to say that the open-circuit voltage is E times the effective length, and then you have that voltage in series with the radiation resistance and the load.*

*When the match is not perfect, it is still true that equal current passes through*

*the load and the radiation resistance, and the scattered power can be calculated from that. When the load is a short-circuit, the maximum amount of scattered power occurs. In this case it can be shown from the above that the radar cross-section is  $0.86 \lambda^2$ , the well known formula.*

*There is a class of antennas for which the above is true... there is another class for which it is not true, and the simplest example is a folded dipole. For a folded dipole you have two dipoles side by side and the load current passes through only one of them. Therefore the 'back' element of the folded dipole can scatter a field that is not closely controlled by the load impedance."*

## ABCs OF SDR

*The ABCs of Software Defined Radio*, by Martin Ewing, AA6E, explains what SDR is all about in six chapters: It's a New World, Meaning of Digital, Real-World SDR, Computers and Software for SDR, Using SDR, How does a QSD Receiver Work? (an appendix with lots of references) and a Glossary and Index. Soft cover 64 pages. ARRL #6320. US\$22.95

## SHORT ANTENNAS FOR 160

The book, *Short Antennas for 160 Meter Radio*, by Grant Bingeman, KM5KG, ARRL 2012, has an emphasis on design rather than detailed construction details. It also has lots of modelling advice and lots of theory.

KM5KG is well known for his preference for vertical elements and effective radial fields; the two and a half pages on "Small Horizontal Antennas" are devoted to explaining why they don't work very well. After a general discussion of the behaviour of short antennas, he deals with top loading and top hats, inverted cone cages, closed wire cages, Tees, Inverted L, antennas with more than one driven element, spirals and quad feeds.

Soft cover. 64 pages. ARRL #5798. US\$22.95.

## PROTECTING PORTABLE ANTENNAS

Some antennas are fragile and easily broken or damaged when packed for travelling. Toothbrush holders are easily available, and often just the right size to accommodate a portable antenna. I pass this picture on to you untouched, although it seems to me that rubber duckies are more or less unbreakable!

## ARRL SOFTWARE LIBRARY FOR HAMS 4.0

This CD has Windows software for many PC applications and two MP4 videos. Most of the files are for self-executable installation, but MultiPSK starts as soon as you click on it.

The contents include: audio spectrum analyzer, CW decoder, DSP filter, DX cluster, function generator, HF digital (PSK31, JT65, RTTY-MMTTY, WSPR, SSTV, MultiPSK, MMSSTV), image editor, meteors and moonbounce, Morse Runner, Rocky 3.6, PowerPoint presentations, screen saver, SDR radio, sound samples, station log, videos, voice activated recorder, voice keyer – a very big selection from a variety of sources.

There is also the free Microsoft PowerPoint Viewer. The ARRL does not support the software, but all the authors are listed.

Recommended a 1 GHz Pentium PC with 1 GB of RAM and XP or later, with a soundcard. ARRL #4364. US\$22.95.

## REPEATER DIRECTORIES 2012-2013

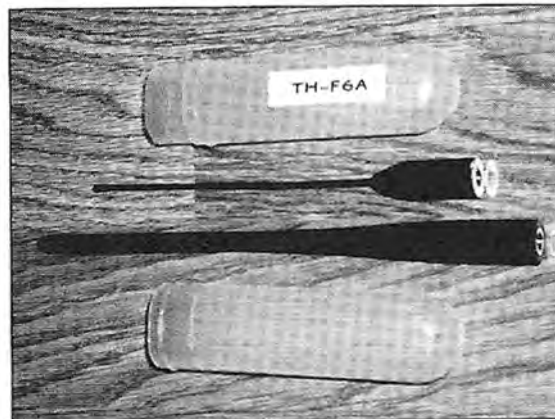
The spiral bound desktop and the pocket-sized versions each have all the usual information on repeaters in Canada and the US, hints on operation, from 29 MHz to 1240 MHz, specialized features of each, list of the coordinators in each state and province, message form instruction and the SKYWARN Weather service.

Soft cover. Desktop ARRL #5485. US\$17.95. Pocket-sized #5347. US\$12.95.



Courtesy of QST "Hints and Kinks"

KA3MTT



A toothbrush holder is a convenient storage container to safely pack a rubber duck antenna. If you carry more than one handheld radio, use stick-on labels to identify which antenna is inside each holder.

# 2012 INTERNATIONAL MARCONI BIRTHDAY CELEBRATION

Canadian Dignitaries at Station VO1AA Contact with Princess Elettra Marconi at IY4FGM

Dave McLennon, VO1LM, Beverley Skanes and Charlie Marsh, VO1VZ

On April 25, 2012, the birth date of the famous wireless radio pioneer and Nobel Prize winner, Guglielmo Marconi, was commemorated at the Society of Newfoundland Radio Amateurs (SONRA) station VO1AA on Parks Canada Signal Hill National Historic Site in St. John's, Newfoundland, by a historic contact with his daughter Princess Elettra Marconi.

Each year, Princess Elettra attends the April celebration of her father's legacy at his birthplace in Bologna, Italy. Her contact with Signal Hill was facilitated through the Marconi Memorial Amateur Radio Station IY4FGM, Bologna and Station Manager Nicola Greco, IZ4FTB. At Signal Hill, over 110 years ago, Marconi's station received the first transatlantic wireless signal from the Marconi transmitting station at Poldhu, England. This proved wireless radio signals can propagate much farther than line of sight and can go over the horizon.

Doug Mercer, VO1DM, RAC Chief Field Services Officer and SONRA President; the Honourable Senator Fabian Manning, on behalf of the Honourable Peter Kent, Canada's Environment Minister and Minister responsible for Parks Canada; along with Provincial Cabinet Minister the Honourable Keith Hutchings, and His Worship Dennis O'Keefe, Mayor of St. John's; and students of MacDonald Drive Junior High, all greeted Princess Elettra Marconi and shared in honouring her father's milestone achievements permitting progress into the instant information and communication age.

All four dignitaries expressed gratitude for the achievements of her father and extended an invitation to Princess Elettra to revisit the Signal Hill National Historic Site to once again bring attention to her father's great achievements. The princess was pleased with the greetings and thanked the dignitaries for the attention brought to her father's legacy.

Communication on April 25 was facilitated by both RF wireless direct communication on the Amateur Radio 15 metre band using the traditional Morse Code (CW or Continuous Wave) exchange between station VO1AA and IY4FGM.

At the key and on the RF phone in Bologna, Italy was

station manager, Nicola Greco, IZ4FTB. From IY4FGM came a series of "s, s, s ..." to echo the first transatlantic wireless communication from England to Newfoundland in 1901. On the straight key at VO1AA was an experienced Amateur operator and Amateur Radio Emergency Service NL Section Traffic Manager, Joe Earles, VO1BQ, who completed a successful CW exchange with IY4FGM.

On phone and Skype, professionally introducing each dignitary to Princess Elettra, was ARES Emergency Coordinator Ira Stacey, VO1IRA.

*The Telegram* reported in the April 25 edition, "I wish to transmit my love to Newfoundland," said 82-year-old Princess Elettra Marconi, speaking by cellphone from Bologna, Italy. She was only seven years old when her father died, but his legacy has defined her life. The princess has devoted herself to learning as much as she can about her father and his work. "History – that's something very important," she said. Much of what she knows about her father came to her through her mother's stories. Her mother said her father used to predict, in the 1920s, that one day everybody would have a box in their pocket they could use to communicate with people. He didn't invent it, but Marconi had the early idea of a cellular phone. What he did invent, however, would become the foundation for modern



*MacDonald Drive school students and videographers, conversing with Princess Elettra Marconi after a viewing of their video "Signals Across the Seas".*

communications. Astronaut Neil Armstrong reminded Princess Elettra some time ago that the very mission to land on the moon was made possible by her father.

Communication via relatively easy to operate Amateur Radio stations, which can transmit CW, voice, data, email, fax and SSTV around the world and locally in the event of emergency or disaster scenarios when power and communication infrastructure fails. Digital no fault equipment and protocols for Radio Amateur HF, VHF bands, such as the Pactor III terminal node controllers, facilitate operation in poor, medium and good radio conditions at close to the reliability of Morse Code which proved itself during the contact commencement.

This event and other Special Communication Events at Signal Hill National Historic Site are facilitated by ongoing cooperation between SONRA and Parks Canada. Of course communication events require planning and a dedicated team to implement. The idea was brewing in Doug Mercer's head for some time. Doug has given long service to SONRA and is now serving in his 5th + year as its President. Doug is also the Chief Field Services Officer with Radio Amateurs of Canada. He held some preliminary discussions with Parks Canada and also with Nicola Greco, IZ4FTB, the Station Manager for IY4FGM, the Marconi museum in Italy.

Nicola was a patient and competent communicator who ensured event decisions were vetted with Princess Elettra and he ensured that a very capable station was ready for use at Bologna.

*A week before the Special Event, the Honourable Peter Kent, Canada's Environment Minister and Minister responsible for Parks Canada visited VO1AA station.*





Doug Mercer,  
VO1DM

The first planning meeting was held on February 23, 2012 at the Parks Canada Visitor Information Center at Signal Hill in St. John's.

SONRA was represented by: Doug, VO1DM – Master of Ceremonies; Doug Tilly, VO1CN – Protocol Officer; Mike Pardy, VO1MPP – Technical Officer; and Dave McLennon, VO1LM – Acting Station Manager VO1AA. Representing Parks Canada were: Audrey Levesque – Visitor Experience Team Leader; Jennifer Duff – Parks Canada Communications Officer; and later, Dave Taylor would join the team as Communications officer from Parks Canada.

The stations set up crew and operation crew was expanded later with the addition of Joe, VO1BQ, Ira, VO1IRA, Charlie, VO1VZ, Keith, VO1FZ, Paul, VO1PRB, Rob, VO1REC and Cal, VO1NY. One Life Member of SONRA, Nate Penny, VO1NP – who could not get up to the "Hill" to help out with installation work – nonetheless gave us moral support and cheerful comments by monitoring the NL 2 metre linked repeater system.

Parks Maintenance Supervisor Pat Lahey and crew members Shawn Pierce and Terry Hanlon stepped up to go beyond the call of duty, climbing all over Signal Hill tower, replacing worn coax and installing inverted V wire antennas and a vertical whip. With both club and member equipment, the Special Event was a lesson in the need for backup (both for people and equipment), early set up and intercommunication by multiple modes (verbal, written and demonstration, etc.) to suit the communication style of the individual team member.

The assistance from Parks Communications experts Jennifer Duff and Dave Taylor solidified the event. They ensured the local daily newspaper, *The Telegram*, interviewed Princess Elettra the day before the contact by cellphone to get the story out on April 25.

Local CBC and NTV video crews were on hand for the CW contact and the welcome address by Doug, VO1DM and Parks Canada as well as the exchanges with dignitaries.

The station had four successful radio and Skype tests prior to the contact day on April 25 (and one cell test).

Operator Ira Stacey, VO1IRA, who introduced the dignitaries to the Princess



VO1AA Special Event IMD Princess Elettra contact Parks Canada and SONRA Set Up & Operation Crew. Left to right: Ira Stacey, VO1IRA – Radio Operator; Shawn Pierce – Parks Canada Staff; Pat Lahey – Parks Canada Supervisor; Brian Jordan – Parks Canada Staff; Joe Earles, VO1BQ – Radio Operator; Dave McLennon, VO1LM – Acting Station Manager VO1AA; Terry Hanlon – Parks Canada Staff; Mike Pardy, VO1MPP – Technical and Photo Officer.

Missing: Audrey Levesque – Parks Canada Visitor Experience Team Leader; Doug Mercer, VO1DM – RAC Chief Field Services Officer and Master of Ceremonies; Doug Tilly, VO1CN, Protocol Officer, Charlie Marsh, VO1VZ – Luncheon Convener; Rob Cove, VO1REC; Cal Tucker, VO1NY; Paul Burggraaf, VO1PBR; Dave Taylor – Parks Canada Marketing and Communications; and Jennifer Duff – Parks Canada Communications (Event – April 25, 2012)

Of course Murphy's Law worked impeccably. Up to a few moments before the April 25 contact deadline at 13:20z, RF was rerouted to add and to exclude equipment; a defective headphone was replaced by Joe, VO1BQ; a program change had to be implemented using the #3 Amateur Radio operator backup, Ira, VO1IRA; Paul, VO1PRB, arrived with improved speakers for the sound system; Skype began functioning properly after some delay; and two-way CW contact was established at 13:20z (10:50 am NDT).

A highlight of the contact was the presentation of a video created by local MacDonald Drive School students, recollecting, in a lighthearted way, the drama of the construction of the radio antenna and the receipt of the signal "S" in 1911.



The video, entitled "Signal Across the Sea", won first place in a national Parks Canada student competition. The video was shown to the Princess and she met with three of the student cast members via Skype.

SONRA had just finished a Basic Amateur Radio class which produced nine new operators. One of the rookies, Norma Stacey, VO1JEK, was introduced at the special event in Cabot Tower. Master of Ceremonies, Doug, VO1DM, closed the proceedings and invited all to a luncheon.

A SONRA function is never complete without a *scoff* and a *time* (NL terms for a feast and a party). Participants gathered together for sandwiches, soft drinks and dessert at the Parks Canada Visitor Center annex. Later, Parks Canada's East NL Field Unit Superintendent, Bill Brake, gave the gathering an interesting review of the Parks Canada connection to Marconi and SONRA at the Signal Hill National Historic Site.

The Honourable Peter Kent, the Minister responsible for Parks Canada, was unable to attend the IMD Special Event but was on hand at the SONRA – Parks Canada station VO1AA a week earlier during a tour of the Signal Hill National Historic Site. Minister Kent recalled his days as a foreign correspondent where he cultivated an understanding of Morse Code telegraphy to ensure he got the whole story. Dave, VO1LM, reviewed for some of the Minister's party the role of Amateur Radio operators across the country in community emergencies and disasters through participation in the Amateur Radio Emergency Service (ARES) and CanWarn.



# INDUSTRY CANADA RELEASES CONSULTATION ON 60 METRE CHANNELS FOR CANADIAN AMATEUR SERVICE

**Norm Rashleigh, VE3LC**  
**RABC Representative Officer**

On behalf of our members and all Radio Amateurs, Radio Amateurs of Canada submitted a formal request to Industry Canada in 2010 for operating privileges on spot frequencies in the 60 metre band to be consistent with those used by United States Amateurs. In addition, the background material provided to the Department suggested two additional frequencies that RAC believed would provide exclusive paths for domestic Amateur communications in support of emergency and disaster relief operations. The progress and follow up of this initiative was the subject of frequent exchanges between the Department and RAC and formal review at the meetings of the Canadian Amateur Radio Advisory Board (CARAB).

The process for a speedy review by Industry Canada was complicated by concurrent initiatives of the American Radio Relay League (ARRL) in the United States and their petition to the Federal Communications Commission (FCC) to change one of the 60 metre spot frequencies coupled with the request to allow not only SSB (USB) but also the use of digital modes including CW, RTTY, PSK and Pactor data. Because Canadian harmony with the US channels was a RAC objective, the whole process in the US had to be settled before Industry Canada could move decisively with a proposal and consultation with these same assignments for the Amateur Service in Canada.

Changes in the US took effect March 5, 2012. On May 12, RAC was very pleased to see posted by Industry Canada Document SMSE-010-12 entitled "Consultation on Changes to the Canadian Table of Frequency Allocations and to RBR-4 to Allow for Amateur Radio Service Use of the 5 MHz Band". This Canada Gazette consultation document provided only a 30-day response period for public comment which will be over by the time that this TCA article goes to print.

We expect that many Canadian Amateurs as well as clubs and organizations will have responded to this consultation before the June 12 deadline; all responses will be posted by Industry Canada. Radio Amateurs of Canada will provide a formal response strongly supporting Amateur access to these frequencies.

In the consultation document, Industry Canada is proposing the same five frequencies, bandwidth, power and emission designators as used by Amateurs in the United States. In addition, Industry Canada is proposing a sixth frequency, 5329 kHz, for domestic Canadian Amateur Service communications.

We expect it will be several months following the comments review by Industry Canada before the new 60 metre operating privileges will be granted to Canadian Amateurs.

When this happens, it will be necessary for RAC to be engaged with the ARRL in recommending operating practice and band planning for the frequencies shared with US Amateurs.

RAC will also be engaged in the development of policy for the sixth domestic frequency. This work will be led by Jim Fisher, VE1JF, Chair of the RAC 0-30 MHz Band Planning Committee and members Mel Martin, VE3DC, Don Moman, VE6JY, and Frank VanderZande, VE7AV. All bandplanning committee recommendations are submitted to and approved by the RAC Board.

In the meantime, if any Canadian Amateur is anxious to get on 60 metres, Industry Canada will allow application for a special "Developmental" licence issued by an Industry Canada District Office. Refer to Industry Canada document RIC-66 for locations.

A licence granted by Industry Canada will run until March 31, 2013 and will cost a prorated amount based on the issue date to the end of the fiscal year and based on an annual fee of \$41 plus an initial \$12 issuance fee. When applying for the licence, the Amateur will have to provide details of the antenna system and determine the station's Effective Radiated Power. Industry Canada will issue the applicant a VX9 call sign to be used with the developmental licence operations.

In conclusion, Radio Amateurs of Canada would like to thank the staff at Industry Canada who engaged in this initiative to provide the 60 metre frequency allocations for the Amateur Service in Canada. The committed effort by Industry Canada staff is especially appreciated in view of the heavy workload of the Department in preparing and participating in WRC-12 during the same period of time.

## References

- 1) "Consultation on Changes to the Canadian Table of Frequency Allocations and to RBR-4 to Allow for Amateur Radio Service Use in the 5 MHz Band" – [www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10381.html](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10381.html)
- 2) "RIC-66 – Industry Canada, Address and Telephone Numbers of Regional and District Offices" – [www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html)
- 3) "RIC-42, Industry Canada, Guide for Calculating Radio Licence Fees" – [www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/ric42.pdf/\\$FILE/ric42.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/ric42.pdf/$FILE/ric42.pdf)

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# GETTING STARTED ON THE AMATEUR RADIO SATELLITES

*The bulk of this article was previously published as "Working Your First Amateur Radio Satellite (Part II)" in the February 2010 issue of Monitoring Times, Brasstown, NC 28902. Thank you MT!*

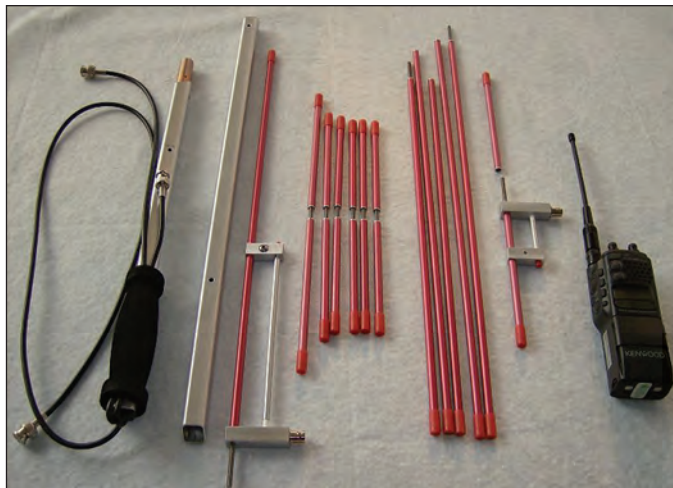
Greetings and welcome once again to the satellite beginner's corner of The Canadian Amateur magazine! My goal in this series of articles is to help beginning satellite operators (or would-be beginners!) demystify the world of Amateur Radio satellites by sharing a wealth of practical information about how to listen for (and work through) our ever-expanding fleet of OSCARs (Orbiting Satellites Carrying Amateur Radio).

I trust my first articles have served to whet your appetite about how to listen for and use these largely homebrewed, modern-day wonders constructed from aluminum, silicon, glass and other electronic components that a lot of people have laboured long and hard to put into orbit (and then command) for our use. However, before you progress further, there are a few more considerations and "tricks of the trade" that I need to share with you so that your attempts at hearing or working through one or more of our so-called "EZ Sats" will be more successful.

## SOME ADDITIONAL HANDHELD ANTENNA CONSIDERATIONS

First, let me say it right up front: in satellite work your antennas are, without a doubt, the most important part of your station. That's because the power output of the majority of Amateur satellites now in orbit seldom runs more than a watt or two. Indeed, one of the satellites I've mentioned in previous columns – AO-27 – normally transmits with a power output of only about one-half watt or so. The power output of SO-50 is even lower.

The author's satellite "hand shack" consists of an Arrow Model 146/437 Antenna and a Kenwood TH-78A dual band handi-talkie (HT). The antenna easily breaks down into several pieces for easy transport. (Photo by VA3KSF)



What's more, most of the Amateur Radio satellites now in orbit transmit into either a single, quarter wave whip or what's called a "turnstile" antenna array that usually consists of a set of four, quarter-wavelength 2m or 70cm whips canted inward (or outward) at a 45-degree angle on the bottom of the spacecraft.

Unfortunately, even with their multiple elements, the nominal gain of these arrays is still pretty close to zero. The end result is that most of these satellites are transmitting with little more than "flea power" into a proverbial "wet noodle" for an antenna. And if transmitting with low power wasn't enough of a hurdle to overcome, it is important to remember that most of our satellites are in what we call a Low Earth Orbit (LEO). This means that the bulk of them will never be closer to you than about 500 miles (800 kilometres) even when they are directly overhead. And they'll be over 2,000 miles (3,200 kilometres) distant when they are near the horizon.

It should go without saying that you will need a good receiver and some sort of gain antenna in your setup in order to reliably hear them. And, as you might guess, the "rubber duck" antennas that usually come supplied with most handheld radios are simply not large enough to routinely hear or communicate through these satellites, except under absolutely ideal conditions. By "ideal", I mean with the satellite located almost directly overhead and with just a few other people using the transponder.



PO Box 33  
Corunna, ON  
N0N 1G0  
E: va3ksf@rac.ca

Keith Baker, VA3KSF/KB1SF

## THE HARSH ENVIRONMENT OF SPACE

Another consideration has to do with the harsh environment of space where our satellites operate. For example, when their solar panels are in full sunlight, the temperature on the outside of these satellites is about 250 degrees Celsius. When they go behind the Earth and out of direct sunlight, the external environment of these satellites rapidly cools down to a temperature near minus 250 degrees Celsius! Needless to say, such rapid temperature swings would soon destroy the fragile electronics onboard if something weren't done to move heat around inside the spacecraft.

As we all know, high temperatures can very easily destroy the modern semi-conductor components in our equipment. That's why most modern Amateur transceivers come equipped with a fan or metal heat sink of some sort. But, heat sinks and fans are both designed to work with air. Unfortunately, there's no air in space to cool such components in the same way as we do on Earth. So, our satellites need to dissipate all of that blistering excess heat they get when they are in sunlight in some other way.

Likewise, such things as batteries do not operate at all well in the cold. Anyone who has tried to use a modern digital camera outside in our Canadian, sub-zero temperatures knows that you have to keep several sets of batteries in a warm pocket or two if you ever hope to capture more than one or two photos under such conditions.

So, with them baking inside a metal box in full sun (and then freezing at minus 250 degrees during eclipse), just imagine what our satellite batteries and other electronic components go through on each and every orbit! That's why our AMSAT satellites (and, indeed, most others) are all designed to spin about their vertical axis (much like a barbeque rotisserie does) as they orbit the Earth. This motion helps to move heat and cold around in the innards of the satellite evenly (usually by direct thermal contact of internal components to the space frame) so as to keep the batteries and other electronics inside the satellite heated and cooled within their proper operating parameters.

This is also one of the main reasons why simply sticking a couple of cheap, off-the-shelf, VHF/UHF ham transceivers into a metal box powered by some surplus store nickel-cadmium batteries, adding a bunch of hardware-store variety solar panels and then mounting the whole thing on a rocket and launching it into orbit often results in a highly unreliable satellite. While such "cobbled together" satellites may work in orbit for a time, they usually don't work for very long!

## DOING THE TUMBLE

Furthermore, in order to keep their downlink antennas properly oriented toward the Earth, these birds are also designed to slowly tumble end over end as they move from South to North (or North to South) over the planet. While also contributing to balancing out those rapid heating and cooling cycles caused by the Sun's radiation, this tumbling motion also helps keep what meager gain their transmit antennas are radiating pointed back down toward the Earth... and us.

Unfortunately, this constant tumbling motion means that the polarity of the satellite's receiving and transmitting antennas will be constantly changing as it moves overhead. And, as satellite work is "line of sight" work, unless you are able to change your antenna's polarity in sync with the satellite, its downlink signals will undergo some very deep fades in your receiver due to severe (sometimes as great as 5 or 6 dB) antenna cross-polarization effects during the course of the satellite's pass.

While they will work for "hit and miss" satellite contacts, my experience has shown that most fixed and mobile vertical antennas are simply not good enough to overcome these limitations. That's because they usually cannot be easily (or rapidly) tilted to match the ever-changing polarity of a satellite's transmit and receive antennas as it tumbles across the sky.

For this same reason, quarter-wavelength and 5/8-wavelength, HT-mounted whip antennas are also not recommended for such activities, either. Besides being frequently cross-polarized with the satellite's antennas, most handheld radios simply don't provide the required ground plane for such antennas to be fully effective.

And, finally, because the downlink signal strength of most of these satellites is so weak to start with, most scanners (or other so-called "broad band" receivers that cover 145 or 436 MHz) will usually not be able to reliably receive the downlink with just a whip antenna (even an external one!) because their unamplified receiver gains usually aren't high enough to do so.

The bottom line here is that, no matter how you cut it, satellite work is weak signal work. And while little whip and "rubber duckie" antennas are fine for most terrestrial applications, they usually don't provide enough downlink gain to be useful for reliable weak signal satellite work beyond casual "hit and miss" contacts.

However, before you say, "I'll never be able to get on the birds" and give up in disgust, let me also say that with the creative addition of a set of small (and relatively inexpensive!) Yagi antennas to produce a bit more uplink and downlink gain, your HT can be turned into a very effective Earth station for use with these satellites.

## HANDHELD YAGIS TO THE RESCUE!

As I have said, if you are truly serious about routinely hearing or working through our FM birds with an HT, a Yagi antenna of some sort will be needed to provide your transceiver with enough effective uplink power (and downlink receiver gain) to reliably do so.

Over the years, many Amateur satellite enthusiasts have "rolled their own" handheld Yagi antennas exclusively to work these LEO satellites. For example, Radio Amateurs like long-time VHF enthusiast Kent Britain, WA5VJB, have been freely sharing their knowledge by publishing numerous plans in various Amateur Radio related publications (and on the Internet) for a series of "homebrewed" handheld Yagis for 2m and 70cm made out of easily obtainable materials. These materials include pieces of aluminum ground wire or brazing rod along with scraps of lumber from your basement, garage or shed (or, when all else fails, from your local hardware store).

In an excellent online article that he's dubbed "Cheap Antennas for the AMSAT LEO Satellites" ([www.oh1sa.net/data/satellite/antenna-lna-etc/Cheap\\_Antennas-LEOs.pdf](http://www.oh1sa.net/data/satellite/antenna-lna-etc/Cheap_Antennas-LEOs.pdf)), Kent shows how you can easily build a dual band handheld Yagi to work the FM birds. Another reliable source of plans for these "homebrew" antennas can be found in an excellent series of beginner articles on our own AMSAT-North America website at [www.amsat.org/amsat-new/information/faqs](http://www.amsat.org/amsat-new/information/faqs).

If building your own antenna from scratch isn't your thing, fortunately there are a number of commercial antenna manufacturers catering to LEO enthusiasts. Antennas such as the commercially manufactured Arrow Model 146/437-10 dual-band handheld beam antenna (sidebar) or the Elk Antenna Model 2m/440 from [www.elkantennas.com](http://www.elkantennas.com) are highly recommended commercial substitutes. Both of these antennas will provide more than enough



The Arrow mounted on a photo tripod.  
(VA3KSF Photo)

The Arrow II Satellite Antenna Model 146/437 provides an impressive forward gain of approximately 10.3 dBd at 70 cm and 4.6 dBd at 2 metres. Sturdily machined from aluminum arrow shafts (hence the name), this antenna actually consists of two antennas mounted at right angles to each other on the same boom: a 3-element Yagi for 2m and a 7-element Yagi for 70cm. A removable foam handgrip and threaded horizontal and vertical photo tripod mounting holes underneath the handgrip make this totally collapsible antenna also useful for terrestrial radio direction finding or portable emergency work.

Options include a split boom and a removable 10-watt duplexer inside the boom along with an assortment of cloth carry bags. With prices starting at about \$75 (minus the split boom and duplexer options) the antenna has, quite literally, spawned a whole new way for thousands of Amateurs worldwide to work the satellites.

I actually own two of these split-boom and duplexer-equipped Arrow antennas and I remain absolutely delighted with their performance. One of them, along with my Kenwood TH-78A handi-talkie (HT), goes with me in my vehicle or suitcase whenever I travel. Using my Arrow and my HT, I've been able to consistently work thorough AO-27 and SO-50 down to about 10 degrees elevation.

A number of Amateur Radio dealers in Canada offer various versions of the Arrow Satellite Antenna in their catalogues, or they can be ordered directly from the manufacturer at [www.arrowantennas.com](http://www.arrowantennas.com).

gain for you to work the FM satellites with a 3-5 watt output, dual band HT or to hear them with a handheld VHF/UHF scanner.

## LOOKING AHEAD

By the time we next meet, I hope to have contacted many of you on one of our EZ Sats. In future columns I'll be discussing some innovative ways to optimize your base station antennas and feedlines to work the birds from inside your ham shacks, as well as to pass along some other tricks of the trade to make your beginning satellite contacts more frequent and enjoyable. See you then!





# INTRODUCTION TO DIGITAL CONTESTING

Ed Richardson, VE4EAR

Maybe you have noticed that the HF CW and voice bands are unusually quiet on some weekends and you are wondering where everyone went?

Perhaps you have dabbled in voice or CW contests in the past and you are wondering if there is something else?

The answer to both of these questions is simple: Digital contesting.

There is certainly not enough space in this article to discuss the finer details and specifics of how to set up your station to enjoy RTTY or PSK operations. The purpose of this article is to hopefully convince you to take your working RTTY or PSK station and participate in one or more digital contests.

There have been many excellent tutorials and guides on how to configure your station for PSK and RTTY operation. I would encourage you to visit the RAC website at <[www.rac.ca/en/amateur-radio/operating-technical/digital/](http://www.rac.ca/en/amateur-radio/operating-technical/digital/)> for links to some of these information packed sites. If you need advice or step-by-step instructions on getting started in RTTY, an excellent article on the subject can be found on Don Hill's, AA5AU, website at <[www.aa5au.com/GettingStartedOnRtty.pdf](http://www.aa5au.com/GettingStartedOnRtty.pdf)>. Certainly do not forget the informative Digital column in TCA for a wide variety of technical topics and operating news.

## EQUIPMENT

The most basic RTTY or PSK station consists of an HF station, an interface unit and a computer. The interface unit can be as sophisticated as a commercially built modem, such as the Timewave PK-232 or SCS PTC products, or as simple as a PC soundcard and the necessary cabling interface. With no official numbers available and judging only by word-of-mouth, I suspect the majority of digital mode participants use soundcards in the PC along with an audio interface to the radio. Commercial audio interfaces are available from many suppliers with units from West Mountain and Tigertronics being very popular. A basic AFSK set up for RTTY or PSK is provided in Figure 1.

The choice to use an external modem or soundcard is a personal one. At one time the purpose-built filters and sophisticated digital signal processing (DSP) provided with external modems was superior to the low end soundcards found in many home PCs. That is no longer the situation and most PCs are now equipped with

soundcards offering low noise and high performance specifications. An attractive alternative for those using PC's or laptops with lower quality soundcards are the products offered by such companies as Microham and Tigertronics. These products integrate audio interfaces with built-in high quality soundcards, leaving only a serial or USB interface to your computer.

A blazing multi-gigabit, wallet emptying computer is not required to get you into the action. Follow the recommendations of any commercial interfaces that you select. Software is available for Linux, PCs and Macs so you should not be limited by hardware platforms. My ideal shack PC would include several serial ports, a parallel port and several USB ports. It comes in a metal case for EMI/RFI shielding and includes a good quality soundcard with a 90 dB or greater dynamic range.

## SOFTWARE

With digital contesting, there are two software components to consider. The most important is most likely the decoding and encoding software. If you elect to use one of the external TNC devices, such as the Timewave PK-232 or SCS PTC units, this decoding software will be built into the modem. If you favour the soundcard interface, there are several excellent options available. Perhaps the most popular is JE3HHT's MMTTY program. It is free for Amateur use and can be used either standalone or it can be integrated with other applications. It is available

online at <<http://hamsoft.ca/pages/mmtty.php>>. Other alternatives for decoding software include Fldigi ([www.w1hkj.com/Fldigi.html](http://www.w1hkj.com/Fldigi.html)) and MMVARI or WINWARBLER.

Digital contesting begs for computer logging. If you have not yet adopted computer logging and radio control for contesting, then I encourage you to invest the time to do so. There are several full feature logging programs available free of charge so cost should not be an obstacle. Every contester has their favourite logging and control program; find one and ask what they would recommend.

All the major packages will support RTTY and PSK contesting. N1MM (<http://n1mm.hamdocs.com/>) is a fantastic "free" program that does a wonderful job of integrating digital modes with the more common CW or SSB functions. If you already have a favourite contest logging program consult your documentation on enabling RTTY or PSK functions. Once set up you will be adding two or more small windows to your contest screen. At a minimum, there will be a decoder window where the received and sent text is displayed. You will also want to have one or more tuning aids such as waterfall or tuning scope. See Figure 2 on the next page for a typical screenshot.

Whatever software you settle on, spend some time to learn how to configure and use the macro functions. Once set up you will find yourself using the mouse and macro keys almost exclusively with very little need for typing.

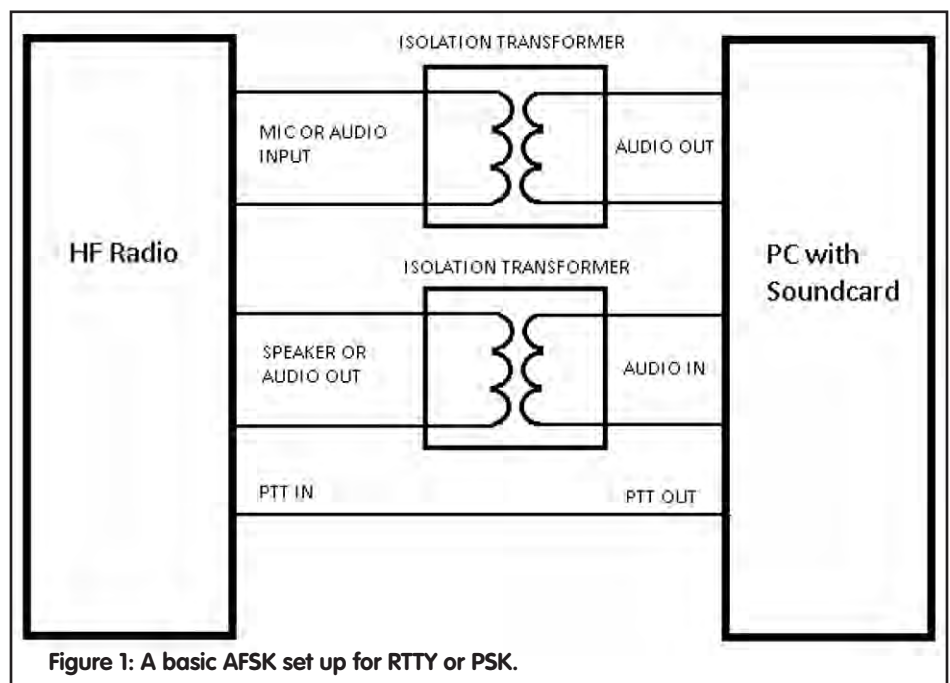


Figure 1: A basic AFSK set up for RTTY or PSK.

## CHALLENGES

The biggest hurdle to overcome is simply being able to send and receive your digital mode signals reliably. Plan on making plenty of non-contest QSOs to get the idea of tuning and using the macro functions. This will also let you finetune the settings for your transmit and receive audio levels. Once your soundcard interface or external TNC is operational and you are comfortable with its operation, you are ready to move on to contesting.

When it comes to tuning RTTY signals during contests, the bands will be full of closely spaced signals. To separate these signals a filter with a 250 to 500 Hz bandwidth is essential. Most modern rigs are equipped with these narrow filters but external audio or DSP filters can be used as well.

Another pitfall experienced by many newcomers to the digital modes is RF getting picked up by the interface cables. Receive audio, transmit audio or PTT lines can seem like magnets for attracting stray RF and care should be taken during installation or construction to minimize RF pickup. Isolation transformers, shielded cables and liberal use of toroids is highly recommended.

When considering contesting, especially the digital modes, one must not lose sight of the power ratings of transmitters, amplifiers, baluns or even feedlines. RTTY and PSK are both considered 100% duty cycle modes. It may be necessary or even prudent to consider reducing power output away from maximum. If your station equipment is not rated for 100% duty cycle at the power levels you plan on operating, turn the power back.

If using AFSK for RTTY and PSK, one must also pay particular attention to the drive level applied to the microphone circuits. Overdriving the input will result in significant distortion of your signal and your fellow contesters will not appreciate the spurious signals you are transmitting on the adjacent frequencies.

## MAIN CONTESTS

For virtually every major CW and voice contest, there is an equivalent RTTY contest. The CQ organization sponsors RTTY contests in the popular WPX and WW formats similar to the CW and SSB events. Of course, the ARRL starts every year with their very popular RTTY Roundup. The National Contest Journal (NCJ) offers RTTY versions of the popular North American QSO Parties and Sprints. If you enjoy the Worked all Europe CW/SSB contests, you will definitely want to add the WAE RTTY Contest to your calendar. PSK contesting is continuing to grow in popularity with the PSK Rumble in early October being one of the favourites. For an extensive list of digital contests, please look at <[www.qsl.net/y1tdz/contests\\_files/RTTY.html](http://www.qsl.net/y1tdz/contests_files/RTTY.html)>.

As always, the WA7BNM's Contest Calendar is an invaluable source of contesting data and it can be found online at:

[www.hornucopia.com/contestcal/weeklycont.php](http://www.hornucopia.com/contestcal/weeklycont.php)

## TECHNIQUES

An essential ingredient to successful digital contesting is setting up and using macros. A macro is essentially a preprogrammed text string that is transmitted at the push of a button.

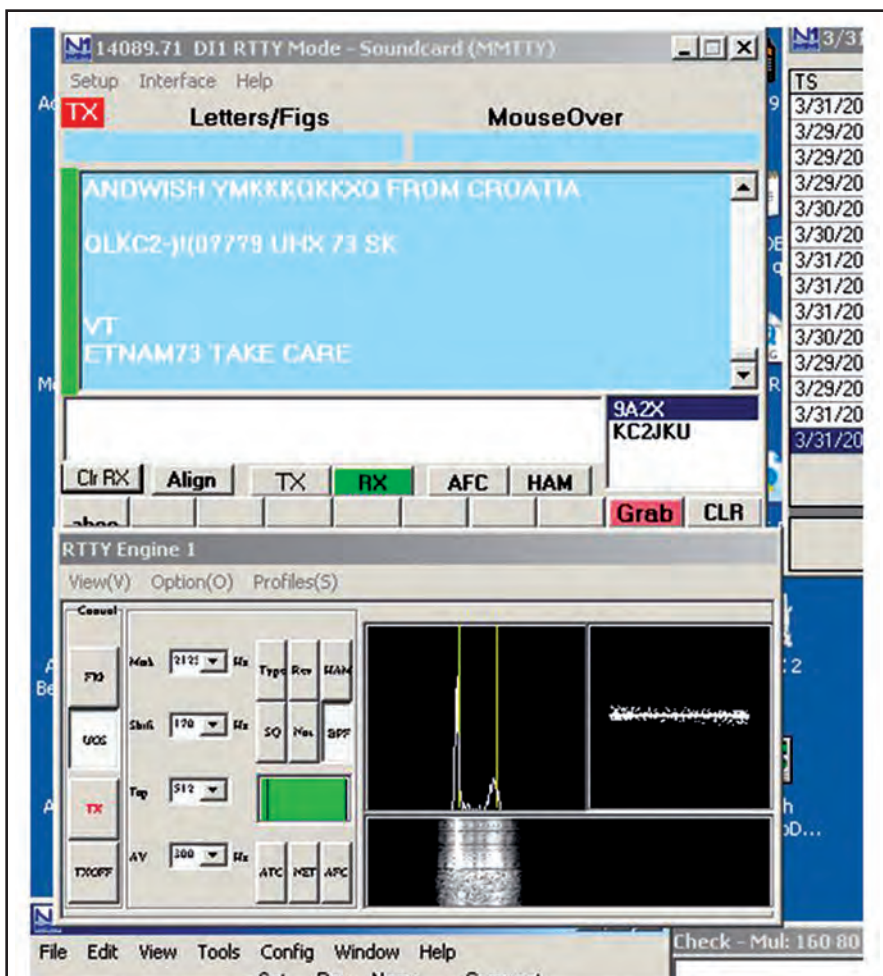


Figure 2: A typical screenshot of a decoder window where the received and sent text is displayed.

There are a few characteristics of macros that can make them winners or real stinkers. In a contest, emphasis is on speed and completing the exchange as quickly as possible. Unnecessary words, characters or potentially confusing text strings all serve to slow the exchange down.

The Contest Group du Quebec has some excellent suggestions on optimizing macros on their website at:

[http://contestgroupduquebec.com/index.php?option=com\\_content&task=view&id=23&Itemid=32](http://contestgroupduquebec.com/index.php?option=com_content&task=view&id=23&Itemid=32)

Keep macros short. Uses of the typical CW abbreviations such as DE or TU are very acceptable. However, use 599 instead of the CW form 5NN if a signal quality is required in the exchange.

When calling a running station, I would suggest sending only your call two or three times and dispense with the "W1XYZ DE ..." preamble. The running station knows who they are and this just serves to lengthen the QSO. Some stations find adding a carriage return at the start of their call will help separate them from other possible callers.

One no-no is adding multiple carriage returns at the end of your transmission. I can tell you it is very frustrating to see an exchange or call sign, scroll quickly up the display and off the screen before you have entered the information.

When you finally are comfortable answering CQ's, it will be time to find a frequency and try your hand at running. When calling, always start with CQ, followed by the name of the contest, then your call twice followed by a final CQ. The final CQ let's those



# THE OTTAWA AMATEUR RADIO CLUB *HAMFEST*



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Web address: <http://www.oarc.net/fleamarket>

Talk-in on VE2CRA, 146.94–

tuning across the frequency, who may have missed the first part of your transmission, know you are calling CQ. For example, "CQ WPX de VE4EAR VE4EAR CQ".

When answering a caller, start the exchange with their call, followed by the required exchange, and finish with their call again. This is helpful since many stations may still be calling you when you start sending your exchange. Hopefully, the pileup will end before you finish and the recipient will see their call and respond.

If you ever develop a serious interest in contesting, you will undoubtedly investigate the possibility of operating SO2R or Single Operator 2 Radio. While operating two radios simultaneously, each on different bands, is a chore on SSB and is downright impossible on CW (my feelings only), it is a relatively easily achievable goal in digital contesting. Digital contesting is an excellent training environment for perfecting your station and SO2R operating skills.

When it comes to tuning signals during contests, the secret is to transmit exactly on the running station's frequency. Make sure your RIT or XIT functions are turned off! If you are too far off frequency, the receiving station will have difficulty decoding your signal and may not "print" anything but garbage. The receiving station may have to manually shift the receive frequency (not the transmit frequency!) and this takes time and may require one or more transmissions on your part. Most soundcard decoding software has a finetune function where it will shift the receive tones to try and decode the incoming signal. If you are not too far off frequency, this will usually work however the run station has to ensure his frequency decoders are reset after the QSO, ready for the next caller.

What happens when you are on the receiving end of a pileup? Similar to a CW pileup when everyone is zero-beat, decoding becomes difficult or impossible. Every operator has their favourite

technique for busting a CW or SSB pileup and digital modes are no different. During contests, it seems to be the most effective if you are the first station or the last station to be decoded.

## **WHY?**

So why consider digital contesting? Everyone has their own specific hook for getting into this mode. Perhaps you want to increase your DXCC or WAS totals in the digital modes. Contests often bring out many rare countries and it is a great way to add to these totals. Digital contesting is a great way to learn and develop your SO2R operating skills. Controlling two radios simultaneously is far easier when the computer does the listening and decoding for you. Unless you live alone, your other family members may enjoy the relative peace and quiet of this mode without being subjected to hearing "CQ contest, this is VE4EAR..." all night long. Hope to "SEE" you in the next contest!

## **ABOUT THE AUTHOR**

Ed Richardson graduated from the University of Manitoba in 1984 in Electrical Engineering and has worked designing LNA, oscillator, filter and amplifiers in the 2.5 to 38 GHz bands. Since 1998, he has been the Communication Systems Engineer for the City of Winnipeg, supporting all the City's two-way radio, mobile data, terrestrial microwave and 911 centres infrastructure.

Ed obtained his Amateur Digital Operator's Certificate in 1983. His Amateur interests originally started with packet radio and has now grown to include a passion for HF contesting and DX'ing. He is currently the President of the Manitoba Repeater Society and is also a member of RAC, the ARRL and Winnipeg ARES; professionally he is a member of APCO, MTUG and the APEM. One of a team of Instructors offering Basic Amateur Radio classes in the Winnipeg area. Ed is married with three children and a supportive wife, Jennifer.



# PUBLIC SERVICE / ARES

Summer is here. The leaves are out, the flowers are blooming and in a couple of weeks, students will be on summer holidays. Will the holidays affect your ARES group staffing? Do you have any time periods that there may not be enough operators available? Maybe it's time for your group to consider looking at implementing mutual aid with adjoining groups. This month's column starts with an in-depth article "District Mutual Aid Program (DMAP) For ARES: Are Your Groups Ready?" that deserves your consideration.

The Surrey Emergency Program Amateur Radio group reports on how they reached out to young people, presenting workshops to Elementary Schools, Libraries and a local museum.

Congratulations to the Sudbury ARES Unit and the Avalon Amateur Radio Club for receiving special awards for the service that they provide.

Work continues with the ARES Training System Working group on developing a training matrix as a basis for future training plans. Bi-weekly conference calls enable across-Canada participation in the process.

*73 to all and have a great summer. – Hew Lines, VA7HU – RAC NTS Coordinator*

## DISTRICT MUTUAL AID PROGRAM (DMAP) FOR ARES: ARE YOUR GROUPS READY?

**Something for all ARES Districts to consider adopting.**

*DEC Michael Hickey, VE3IPC  
Ontario Section Assistant Manager*

The Eastern Ontario (Seaway & Capital) ARES District has been developing a Mutual Aid manual for ARES for the past seven years. It first grew from a Protocol, to a Plan, and became the Program that it is now. This all started back in February 2005 when the new District Emergency Coordinator (DEC) Michael, VE3IPC, then held the first District conference (then St. Lawrence and Ottawa Districts) consisting of the leadership teams of five ARES groups that did not know much about each other, were at different levels of evolution and some were going in different directions.

At the first conference in 2005 each Emergency Coordinator (EC) introduced their group and described their main activities for the past year. By the time the

final EC had presented their group's disposition, it became clear that a common theme had emerged: that of each group not having enough boots on the ground to sustain operations for more than one shift. This then became the main focus for the DEC and the groups within the District for the next eight years: developing a Mutual Aid plan. This would provide the groups with a process to draw on each other's capabilities.

The first step was for each group to agree to become willing participants of the District's Mutual Aid call out list, which is kept separate from the District Mutual Aid Program (DMAP) manual.

Since no other Mutual Aid for ARES manual seemed to exist in Canada, the District needed to start the process of developing one from scratch and evolve it



**Doug Mercer, VO1DTM**  
Box 1042  
84 Main Road  
Goulds NL A1S 1H2  
T. 709-364-4741  
E: vo1dtm@rac.ca



*Prescott-Russell ARES group EC / ADEC for Eastern Ontario ARES – Lance, VA3LP, working as the talkin Net Control.*

one step at a time. Each step is approved by the ECs at each annual ARES District conference. In doing this, the groups throughout the District were involved in the decision process and had a "buy in" for any changes. Thus, the now mature document contains a complete set of Standard Operating Procedures (SOPs) and Guidelines, which have been tested in the past three years through exercises, both deployed and tabletop, so we know that it provides the necessary framework that clients can see will allow cross-group utilization of resources in a safe and secure manner.

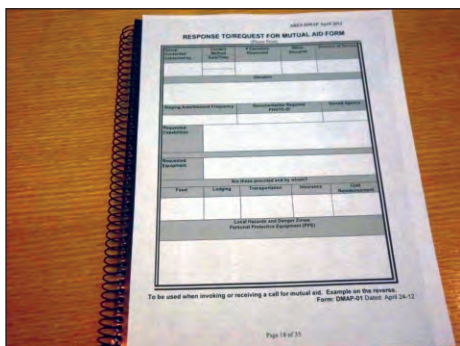
Once the Mutual Aid was well enough established in earlier years, this then went a long way to helping each group have more of the same focus and direction with similar enough procedures. The process is easily adapted into existing group internal procedures making it much easier than before for one ARES group to be able to parachute into another ARES group's emergency operation, in a Mutual Aid call for help.

The current DMAP manual version 2.0 is being revised with more changes such as: grammar and typo corrections; a more consistent numbering system that helped with some better page layout; and a few minor changes to the SOP in a couple of the DMAP forms. The result of all this will be the DMAP manual version 3.0 when all the changes have been completed and sent for approval by the group ECs.

*ARES District Mutual Aid tabletop exercise participants at Ottawa City Hall.*







DMAP-01 form – from (Eastern Ontario ARES) District Mutual Aid manual version 2.0.

*Writing a DMAP manual that has several SOPs and guidelines built in is great, but do these work, you may ask? The answer is YES and here is how we know.*

The ARES District first had a tabletop exercise in April 2009 conducted by Assistant DEC Lance, VA3LP, that would impress upon all attendees how easily any group can become overwhelmed even during the first shift, which would necessitate an early invocation of the Mutual Aid Program, in a call for help.

In April 2010, the District EC tested the DMAP forms as part of an exercise with each of the group ECs by phone to see if the DMAP-01 form (situation and what are the needs) and the DMAP-02 form (list of what resources is being promised and from which group in response) would work as well as expected at both ends of the phone. They did work very well. Then this exercise turned into a fully deployed Mutual Aid exercise for each member of the leadership team of each ARES group that had planned to attend the ARES District Mutual Aid conference. Each filled in their DMAP-04 form (personal info) before leaving home and brought their personal "Go Kit".

A Net Control was established by the District Exercise Manager Mike, VE3FFK, to test out the Mutual Aid coordination of all deployed volunteer radio ops coming in from several parts of Eastern Ontario to the staging area in Ottawa.

Afterwards everyone would proceed to the ARES District conference for an exercise debrief. All went well except there were some serious challenges with the staging reception layout and procedures and with briefing. It is noteworthy to indicate that there was not enough time given for full thought and proper preparations for staging and briefing.

Eastern Ontario (Seaway & Capital) ARES District EC Michael, VE3IPC.

A complete and comprehensive exercise report is available upon request from DEC Michael Hickey, VE3IPC, at the contact information provided below.

In April 2011, the ARES District team, having evolved the DMAP staging reception area and briefing layout and procedures based on the 2010 lessons learned, proceeded with conducting another deployed Mutual Aid exercise. This time they exercised the receiving of all radio ops responders deploying again from several parts of Eastern Ontario to Ottawa and once again set up a Net Control, but this time NC was tasked by District Exercise Manager Mike, VE3FFK, to work with two ICS forms (ICS-213 and ICS-214) to see how these would work.

The exercise had some minor challenges but the DMAP SOPs for staging reception and briefing worked well. The only problem with the SOP was that it failed to ensure that the volunteers, who had been briefed using the DMAP-05 form (deployment briefing info), returned with it to the staging reception clerk to log in that each had been briefed and also that the deployment location of each Amateur volunteer was properly recorded into the DMAP-03 form (tracking volunteer radio ops). A complete and comprehensive recently written exercise report is available upon request from the DEC.

In April 2012, with lessons learned from past deployed exercises, it was now time to hand all this over to all the ARES groups' leadership teams by way of having each participate in the newly created DMAP tabletop exercise. This was designed to give each a "hands on" personal experience of each aspect of the DMAP set of SOPs so that they can take this to their home turf with more confidence and train each of their group leadership team and then exercise their entire group.

Ideally, each member of their group will become an expert at receiving a neighbouring ARES group in a deployed exercise and later in a real event that would cause the invocation of the DMAP in a call for help. Unless each ARES group exercises this until their group has

become an expert, they will not be sufficiently prepared for when the time comes that they need to make that call for help and set up their staging reception and briefing area and so forth. Full details of this unique DMAP tabletop exercise will be found in the exercise "playbook" manual that can be requested from the DEC (VE3IPC).

In order to be able to carry out such a training tabletop exercise, the ARES District exercise team needed to create a DMAP exercise "playbook". With a few lessons just learned from the April 28 tabletop exercise in Ottawa, the DMAP "playbook" is being tweaked before making it available to each ARES group within our District. In addition, the current DMAP manual will soon be ready for examination and approval by the ECs before being officially released as version 3.0.

Special invited guests who attended and participated in the tabletop exercise were:

- New Quebec Section ARES SEC and new Deputy Director Normand, VE2NHK
- President of the Ottawa ARC and new Ontario North/East Deputy Director Glenn, VE3XRA
- Loyalist District EC Bill, VA3WOW, who has attended for the past three years

The Eastern Ontario ARES District is willing to share the benefits of our experience with your ARES District. Any ARES District EC or ARES Group EC that would be interested in having Mutual Aid for ARES in their District may request both the DMAP manual and the DMAP exercise playbook from the DEC for local use. After all, we all do need to be prepared – just in case.

**Please note:** Upon your close examination of the DMAP manual, many of the SPOs and guidelines can easily fit into your local ARES Group's Operation Manual. Do check it out!

#### Credits:

Many thanks go to: the ECs that have given their inputs over the past many years; ADEC Lance, VA3LP, for his many contributions and his dedication; and AEC Mike, VE3FFK, for past three years as District Exercise Manager. Photos for this article were provided by Carole, VE2NDJ.

#### Why does your ARES District need Mutual Aid?

Active Amateur Radio Clubs see their membership shrinking, as do most ARES groups, so Mutual Aid for ARES makes perfect sense. Get yours today for a stronger District response capability in joint support Mutual Aid.

Submitted by DEC Michael Hickey, VE3IPC  
Ontario Section Assistant Manager  
Ve3ipc@gmail.com – 613-679-4474





# THE SURREY EMERGENCY PROGRAM AMATEUR RADIO AT THE SURREY MUSEUM



SEPAR members in action at the Surrey Museum (wearing Emergency Communication vests): left photo Don, VA7GL, Kyle (speaking to Howard, VK4BS) and Marley – D-Star; at centre Brett, VE7GM, Jana and Angela – sound waves/mechanical vibration experiment; at right Rob, VE7CZV and Walter, VE7SM, Natasha, Dominic, Chaitanya and Bobby – Morse Code. SEPAR members not shown: Jay, VE7OFH, John, VE7TI, Jim, VE7HUR, Alan, VA7BIT, Dixie, VA7DIX, Jinty, VA7JMR, Fred, VE7IO, Marcy, VE7JT and Ed, VE7AFC.

Kids can discover Amateur Radio at the Surrey Museum located in Cloverdale, British Columbia.

On March 20, the Surrey Museum and the Surrey Emergency Program Amateur Radio (SEPAR) hosted an Amateur Radio emergency communications workshop for kids. Since the start of our project in the spring of 2010, SEPAR has presented its Amateur Radio Community Workshop to six Elementary classrooms, two Libraries and the Surrey Museum.

Here are the Workshop statistics:

1) We had 17 youths between ages 9 and 15 years registered for the Surrey Museum workshop.

2) Previous workshop DX contacts were through IRLP. We used D-Star to contact Howard, VK4BS, for the Surrey Museum.

3) Our new SEPAR communications trailer was on site.

4) The SPARC Radio Museum ([www3.telus.net/radio\\_museum/](http://www3.telus.net/radio_museum/)) were invited to set up a display to promote the Radio Museum and SEPAR workshop.

5) We were guided by the Surrey Museum Publicist on how to format a Public Service Announcement (PSA). Once the PSA had been completed, the Publicist submitted it to *Surrey Leader*, *Cloverdale Reporter* and *Surrey Now*.

The PSA is printed at no cost should newspapers decide to publish the article. All three newspapers printed our article.

6) The Arctic Amateur Radio Club read the SEPAR newspaper article and we received an inquiry.

7) We received worldwide publicity by the Southgate Amateur Radio News RSS Feed when they posted our newspaper article on their website.

Our following workshop was held on May 5 with the Guildford Recreation Centre and was a lead into "Emergency Preparedness Week".

Our UK contact operator is a RAYNET (Radio Amateurs' Emergency Network) member which tied in nicely with the Emergency Preparedness theme.



Seventeen registered, a mix of youth and adults. Interest was high, questions were very engaging and comments like "we wish your two-hour workshop was longer" were received by adult participants. Our next workshop will be on July 12 with the City Centre Library.

SEPAR is a registered society with funding coming from Lotteries and the City of Surrey. In the September & October 2010 issue of *The Canadian Amateur* you will find an article which describes the beginnings and development process of our workshop in partnership with the School District of Surrey.

SEPAR offers a free Amateur Radio Workshop four times per year. For more information contact Marcy Lui, VE7JT at <louie\_family@shaw.ca> or Fred Orsetti, VE7IO at <ve7io@separ.net> or visit the SEPAR website at <[www.separ.net](http://www.separ.net)>.

– Marcy Lui, VE7JT and Fred Orsetti, VE7IO

*Rachael participating in a previous SEPAR workshop at Don Christian Elementary School. Her picture appeared in the Surrey Now, Cloverdale Reporter and the Surrey Leader newspapers.*

THE SURREY MUSEUM

## KIDZ BIZ

Event at Surrey Museum

### Kids will Ham it up, radio style

In the event of hurricanes, fires, floods, earthquakes and other disasters, you can count on amateur (or Ham) radio to provide vital links to agencies and city services such as fire, police and ambulance.

On Tuesday, March 20, local kids can join Surrey Museum and Surrey Emergency Program Amateur Radio Society (SEPAR) in an amateur radio emergency communications workshop at the museum, at 17710 56A Ave.

The session (from 2 to 4 p.m.) will focus on how amateur radio provides communities with emergency communications when commercial systems are not operational.

The hands-on workshop is designed for kids age nine and older. Admission is free, but space is limited; pre-register by calling 604-592-6956.

Workshop participants will talk to people in other countries, experience digital communications without the internet, learn how radio waves travel, simulate a ground control/International Space Station contact, try Morse code and watch

videos. Also, kids will learn that new technology is not always superior to old technology and is anything but obsolete.

SEPAR offers its free Amateur Radio Workshop four times per year. For bookings or more information, contact Marcy Lui (VE7JT) at [louie\\_family@shaw.ca](mailto:louie_family@shaw.ca) or Fred Orsetti (VE7IO) at [orsetti@telus.net](mailto:orsetti@telus.net).

Rachael Storie sends a digital message across the globe during a recent workshop hosted by SEPAR (Surrey Emergency Program Amateur Radio Society).



## SUDBURY ARES UNIT WINS CIVIC AWARD



The Sudbury, Ontario unit of the Amateur Radio Emergency Service (ARES) was recognized for their contributions and volunteerism to the community by winning a Civic Award from the City of Greater Sudbury.

The award presentation took place on April 19, 2012 at the Tom Davies Square at City Hall.

Present at the award ceremony were (from left): Greater Sudbury Mayor Marianne Matichuck; Ward 11 Councillor Terry Kett; EC Alan, VA3AJV; Peter, VE3PJA; Glenn, VE3GMI; Vic, VE3KBU; Jenny, VE3HLP; Catharine, VE3CYM; AEC Marc, VE3SNA; Doug, VE3DNS; Ed, VE3VPD; Gord, VA3GJJ; Wayne, VE3THN; and Art, VE3COG. Absent from the photo but celebrating with us was Lynn Fortin, CEMC.

## AVRAC RECEIVES AWARD FROM RED CROSS



The Newfoundland and Labrador Branch of the Canadian Red Cross recently acknowledged the Avalon Radio Amateur Club (AVRAC) with a special award of service. The presentation was made by NL Lieutenant Governor John Crosbie at Government House in St. John's, Newfoundland.

AVRAC has had a long-term affiliation with the Canadian Red Cross providing emergency communication in times of environmental disaster and other such crisis. One example of the invaluable service AVRAC provides to the Red Cross occurred during the September 11, 2001 crisis when the local Red Cross provided support and accommodation to the many airline passengers who were diverted to YYT with the closing of US airspace.

AVRAC operates Club Station VO1CRC from the Red Cross building, VO1ERV, in the emergency response vehicle, and repeater VO1RCR 147.345+ in the metro area.

Red Cross Regional President Gary Follett was at Government House to assist Lieutenant Governor Crosbie with the presentation.

Present at the award ceremony were (from left): Lorne Harnum, VO1DOG, Tom Turner, VO1TV, Dan Payne, VO1XH, Paul Green, CO1PX, Lieutenant Governor John Crosbie, Bob Turnbull, VO1RWT and Rick Turner, VO1ZX.

– Don Payne, VO1XH – AVRAC Director

EC Alan, VA3AJV and the group would like to thank our nominator Lynn Fortin, CEMC, at the Greater Sudbury Emergency Services for nominating our group for this award.

It is a great honour and accomplishment to receive such an award, and it's a milestone we can all be proud of!

Keep up the great work and thanks for your many hours of volunteering and continued support of the community and ARES!

Congratulations to the Sudbury ARES!

EC Alan Viitala, VA3AJV – Sudbury ARES

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# VE2OJ CONTEST CLUB ON TOP BAND

**John Moffat, VE3NJ and  
Richard Ferch, VE3KI**

With the exception of the ARRL Field Day, many of the entries in most contests are from single-operator stations operating from home or from multi-operator stations working from one of the participants' home locations. However, the Outaouais Contest Operators Association, using the call sign VE2OJ, has usually travelled to one of the participants' cottages located in West Quebec within a few hours drive of Ottawa to operate in the contests. We have always enjoyed the excitement of journeying to a "not-too-far-away" location to be together. Whereas many groups have focused on major multi-band contests, such as CQWW DX or CQ WPX, we have chosen to concentrate on two of the major 160m CW contests, namely the ARRL 160m Contest in December and the CQ 160m Contest in January.

The 160 metre band – or "top band" as it is also known – has several characteristics that set it aside from the higher bands with which most HF operators are familiar. The first is the sheer size of the antennas. A half-wave dipole is 260 feet long and for best results it should be as high as possible. A full-size, quarter-wave vertical antenna would be 130 feet tall and again for best results it would require a number of comparably long radials. While it is possible to use antennas that are less than full size, fitting a 160 metre antenna into an urban or suburban lot is a challenge and, until very recently, none of the members of the group has had an antenna at home capable of transmitting effectively on top band. Operating from a cottage location has given us room to install full-sized antennas for this band.

Another difference is propagation. In many ways, 160 metres is a kind of inverse to the 10 metre band. Propagation is best during sunspot minima, just the opposite of the higher frequency bands. Regardless of the solar cycle, during the daylight hours only nearby stations can be reached and the band only comes alive during the hours of darkness. Therefore, we have had to arrange night-time shift operation so that at least one and preferably two operators are available at all times through the night.

Atmospheric noise is a significant problem on 160 metres. Especially during summer, static crashes from thunderstorms anywhere within hundreds or even thousands of kilometres can be deafening. Combine this with the short duration of darkness in summer and you can see that the best season for 160 metres is winter.



**Arn, VE2SD, John, VE3NJ, Henry, VE3GNW and Grant, VE2FLD in December 1988.**

One method for dealing with atmospheric noise that is popular with 160m operators is to use a directional receive antenna. Perhaps the best known of these is the Beverage antenna, named after its inventor, Harold Beverage. This is essentially a long, low wire, at least one-wavelength long and just high enough not to be snagged by passing persons or wildlife (we use "one and a half deer height" as our guideline). When properly terminated and fed, this antenna does not respond to noise from unwanted directions, thus improving the signal-to-noise ratio. However, it is quite inefficient and therefore cannot be used as a transmitting antenna; and of course it requires a lot of real estate.

There are four major single-band contests on 160m: the ARRL 160m Contest (CW only); the CQ WW 160m contests (one on CW and one on SSB); and the Stew Perry Top-Band Distance Challenge (CW). Our group has never been interested in the SSB Contest. The Stew Perry is an interesting contest with unique rules, but it always takes place on a weekend either just before or during the Christmas holidays (usually the same weekend as the RAC Winter Contest), when it is hard to get a group together to take a weekend away from their families. Therefore, we have specialized in just two contests: the ARRL 160 and the CQ WW 160 CW.

It all began for me with a phone call in the fall of 1984. "Can you get a leave pass from your wife for a weekend?" It was Arn Petch, VE2SD, from across the Ottawa

River in Hull, Quebec. He was inviting me to join a group of local Amateurs for a weekend of radio contesting, on-air ragchewing and camaraderie. This group had been operating at least since the late 1970s, and possibly before. So began an almost continuous association with the VE2OJ group.

In preparation for the contests each winter, a subset of the group convenes at the chosen location in the fall to check out and, as necessary, erect or repair the antenna(s). With everything ready the full group gathers again on the first weekend in December for the ARRL 160m CW Contest and again on the last weekend in January for the CQ 160m CW Contest.

We have always gone to the cottage of one of the participants rather than use a home QTH. For many years the group operated at Grant, VE2FLD's cottage on Johnson Lake, 20 kilometres north of Shawville, Quebec. Because Grant and his wife started going south for a yearly January winter holiday we missed the CQ contests for several years so in December 1999 we moved our operation to Craig, VE3OP's cottage near St. Pierre de Wakefield, in the Gatineau hills north of Ottawa. During this time another participant, Brice, VE3EDR, invited us to go to his cottage on the shores of the Ottawa River just west of Fort-Coulonge, and we have operated from there since December 2002.

We have always been fortunate to have had access to a cottage in Quebec that is close to Ottawa. Because of the cold



weather in December and January, there has usually been ample snow. Although we have never actually been snowed in, the presence of snow and the distance from the city have given us a feeling of isolation that we would not have had if operating from a home QTH; this has made it feel a little like a "mini DXpedition". This was especially true in the earlier days when we were often the only Quebec station participating in the contests and were thus sought out, much as a rare DX station would have been.

The relative inactivity of the 160 metre band during the daylight hours has given us "permission" as well as the opportunity to participate in unrelated activities during the day on Saturday without seriously affecting our final contest score. These activities have ranged from outdoor activities such as skiing, walking, taking photographs, trying out a new high-band antenna etc, to indoor activities such as getting on other bands for a ragchew or working some DX, playing some musical instruments, discussing recent articles from TCA, QST or other journals, preparing the next meal, or even having a nap. An activity that Arn never passed up was to shut down the 160 metre operation at 19:30 on Saturday evening for an hour so he could take his weekly spot as the control station for the Quebec Radio Net. Meals have always been an important social aspect; in the earlier days Grant acted as a formal host, taking care of all cottage matters as well as providing the meals. In more recent years we have shared this chore – the preparation and the cleanup afterwards as well as the enjoyment of the food.

At each cottage we were fortunate to have ample room to erect the larger antennas required for 160m operation. At Grant's, we had the luxury of a full-sized dipole in inverted V configuration with the apex at about 80 feet and the ends at about 20 feet in height. One year we went to the trouble of erecting a Beverage but the noise level at the remote cottage location was sufficiently low that we weren't able to see much difference. At Craig's we used a similar dipole antenna, but did not have a Beverage. At Brice's cottage we have used a folded Inverted L, fed at about eight feet above ground, as the transmit antenna, plus a Beverage pointed roughly northeast (towards Europe) as an additional receive antenna.

We have used a variety of rigs including a Kenwood TS-450, a Ten Tec Omni VI, a Yaesu FT-ONE, a Yaesu FT-1000D, an Elecraft K3 and a Yaesu FT DX 5000MP. We have developed a taste for having the capability provided by dual simultaneous receivers, the main receiver on the transmitting antenna and the secondary receiver on the Beverage.

We have also come to depend on signal processing and filtering. This is a far cry from contesting in the 1960s and earlier when, because of the relatively wide bandwidth of the receivers, operators had to develop "tuned ears", i.e., the ability to concentrate on one signal apart from the cacophony of signals that were bombarding their ears.

On those occasions, particularly since the year 2000, when we have been able to use a high-power amplifier, we have enjoyed the ability to hold a frequency when calling CQ and to break pileups more quickly when searching and pouncing. Currently, we are using an Ameritron AL-80B. One other piece of equipment we have made use of is a headphone distribution amplifier that allows several people to listen simultaneously on their own headphones while letting others sleep.

Until December 1991 we submitted handwritten logs. We tried to use the "official" log sheets supplied by the contest organizer. For dupe sheets, we created a dupe sheet on two separate 11" x 17" sheets. In landscape format, each sheet had five rows approximately two inches high. Each row contained all the stations worked from that numbered call area. One sheet had call signs from Districts 1 to 5 and the second sheet from 6 to 0. Each row was divided into 26 columns, one for each letter of the alphabet. Call signs were entered in these columns according to the first letter of the call sign suffix. The top of each box was used to record US call signs while the bottom was for non-US call signs

including Canadian and foreign. The call sign W1AW, for instance, would be written in the row labelled "1" and in the column labelled "A". This sheet allowed us to keep the call signs of the stations worked in an approximate alphabetic order so the logger could quickly confirm if any particular station had already been worked. Nowadays, of course, this is unnecessary, as the computer does the duplicate checking for us.

Originally, all the operating was done manually using a keyer and paddles so that two operators were involved – one for operating and one for logging and duping. Since December 1991, we have gradually incorporated computerized logging and keying, first with a custom-written logging and duping program, then with commercial software starting with CT, then Writelog, and for the past 7 years, N1MM Logger. With the help of computer keying from the logging program, one operator can easily manage all the tasks.

In the early years we managed about 200 to 250 QSOs in about 50 different states, provinces and countries, also referred to as "multipliers". In spite of our comparatively low performance we usually achieved first place multi-operator in Quebec and occasionally in Canada. Part of the reason for low QSO counts is that we usually spent the bulk of the contest in "search-and-pounce" mode, crawling up and down the band searching for stations that we had not already worked. Between 1994 and 2003 our performance was significantly improved, yielding 500 to 800 QSOs and about 70 multipliers. This improvement in score is attributable partly



*Mike Kelly, VE3FFK and Rich Ferch, VE3KI, from the loft in January 2005.*

to having an amplifier, but mostly to spending significant amounts of time calling CQ. We did not significantly improve our standing, either in Canada or worldwide, but it gave us the taste for better performance. Since 2004, we have averaged between 1000 to 1400 QSOs and 80 to 120 multipliers. This has improved our standing to within the top ten in North America, and in December 2005 we placed 6th in the world.

But we are not in it only for the results! It was mentioned above that we have lots of fun. We also have learned many lessons. A number of events come to mind to illustrate this point and a few of these stories are told in the paragraphs below.

On one of these antenna erecting expeditions to Grant's cottage we decided to try to improve the height of the apex of the inverted V dipole. This was located in a tall pine tree right in front of the cottage. Grant had a sling shot and a lead ball with a wire hook for tethering it to a fish line. Arn and I were on the sloped shingled roof. We carefully laid out a generous amount of fish line in a zig-zag pattern on the roof so that it could play out without getting tangled or knotted. The first shot from the sling shot was magnificent. We hadn't noticed, however, that part way along the line, not far from where we were standing, it had become snagged under the corner of a shingle; when the available line ran out the ball stretched it out tight then it boomeranged directly back at Arn, who was still holding the sling shot. Fortunately it didn't hit him. How not to shoot a line – we never made that mistake again!

One year we were trying to raise one of the ends of the inverted V. From the apex one side of the transmit antenna stretched out over a frozen swampy area. As we crossed the shallow swamp to get to the far support, my foot went through the ice. This was quite unexpected as the temperature had been at about -25C for some time. As my foot went down I could feel the cold water running into my boot. I quickly extracted my boot and headed for the cottage. In the one minute it took to reach the door my pants were frozen solid. I learned to take the route on solid ground if at all possible!

In the years prior to adopting computerized logging software, we used handwritten logs. Usually, Arn would send the required cash and a self-addressed envelope to the contest sponsor and they would send log sheets and a summary sheet to be filled out with the contest entry. In the fall of 1988, Arn wrote to Donald McLennan, N4IN, the coordinator of the CQ 160m CW Contest, to obtain the required paperwork. We had not participated in the CQ Contest for some

reason for the past couple of years so when we received our envelope it came with the note shown above and the return of our \$5. Donald was such a gentleman.

One Saturday night during the December contest in 1995 I was logging for Gerry King, VE3GK. Conditions were not great and it had been 10 or 15 minutes since our last contact. My wandering mind was interrupted when Gerry sent an exchange "SH1T TU 599 QUE", <several seconds' pause>, "QSL GL 73 DE VE2OJ TEST". I slowly turned my head toward Gerry for confirmation as I had not heard the station he supposedly worked. A grin slowly appeared and I knew that I had been "duped". There was no station; he had tricked me! He said that at other times he had actually heard other stations jump in after his "QSO" and call this mysterious station. He told me that sometimes he used popular vacuum tube numbers like 5U4GB for his phony QSOs.

One year I had to leave on Saturday afternoon to attend my boss's retirement dinner. I promised to get back as soon after as I could to help with the operation. When I got back in the late evening I was greeted by two very happy but quite tired operators. They told me that the band had miraculously opened up not long after I had left and stayed that way until shortly before I returned. They showed me the log on the computer: it contained several hundred contacts from all over North America and even Europe. After several minutes of amazement on my part they had to admit that it was all a lie. Right after I had left they had made a separate copy of the log on the backup computer and had busied themselves by typing in call signs (none of which had been worked). My 2 metre communications with them during my trip back had alerted them of my imminent arrival and they had copied this fake log onto the logging computer to be ready for their trick. In my desire for greatness for the group I had been prepared to believe them. That year the bands were very poor and we had anything but a stellar performance.

One year during the middle of the night we were chasing a station from Manitoba when the VSWR was noticed to be quite high. After inspecting the connections we ventured outside only to find that our Inverted L had collapsed and was lying on the ground. We rounded up the troops and we all went out into the dark cold to rescue the antenna and the contest. Some time later the cold operators returned inside and carried on with the contest. Of course, by that time the station we were chasing was long gone from the frequency.

VE2OJ,

Every one in the CQ 160 Meter contest will be so pleased to get your VE2 multiplier, it should not cost you anything to receive some log sheets and a summary sheet. Hope you enjoy the contest. Season's greetings!

73 *Don*  
Donald McLennan, N4IN

One year at Brice's cottage while we were setting up the station on Friday afternoon one of the operators was attacked by a mouse trap. He had not seen the trap on the floor by the wall and had placed his foot on it, setting it off. The sound of the trap and the startled operator caught us all by surprise. We learned after that to release the traps when we arrived to avoid a repeat of this adventure.

Although the thrust in the more recent years has been toward greater numbers of QSOs and multipliers, higher scores etc, we have also managed to keep the goal of having fun in our sights and there is no plan to abandon this goal in the near future. We look forward to each new contest season with similar enthusiasm as in previous years, confident that we will be rewarded with lots of fun operating and more great memories.

## ABOUT THE AUTHORS

John received his Amateur licence at age 17 in June 1964 and the Advanced in April 1966. His primary operating interest has been HF CW, although he also has operated HF SSB and VHF FM. Over the years he has operated HF CW and SSB mobile and VHF FM bicycle mobile. In the 1990s he was a member and on the Executive of the Ottawa Valley Mobile Radio Club and was involved in the teaching of their Amateur Radio course. He has been a member of the VE2OJ Outaouais Contest Operators Association since 1984, taking over the reins when Arn, VE2SD passed away in 1989.

Richard was first licensed in 1978. He served on the RAC Executive during 2006-2011 as Vice-President Regulatory Affairs and is currently on the Executive of the Quarter Century Wireless Association's Chapter 70. His main Amateur Radio operating interests are HF CW and RTTY contesting and DXing. He has been a member of the VE2OJ group since 2002.





# THE SPORTS PAGE

## — THE CANADIAN CONTEST SCENE

### RSGB IOTA CONTEST

Here is something for the East and West Coasters: rule changes in the August Islands contest.

Here are the main changes for 2012:

- The World Multi-Operator category has been discontinued.
- Island Multi-Operator stations must observe a "6 band/mode changes per hour" rule.
- Island Multi-Operator stations must identify Run and Multiplier stations in their log.
- The score for World to World QSOs has been reduced from 3 points to 2 points.
- Island Stations now receive more points for World Station QSOs.
- The score for Island Stations contacting their own Island has changed.
- Low Power Island expedition stations can now choose any antenna that they want.

### WRTC-2014 UPDATE

There are now 21 final qualifying contest scores available. Here are the present official totals as of May for Eastern Canada and Western Canada:

Eastern Canada +	Official Points
VY2ZM	10,000
VE3DZ	8,437
VE2XAA(SK)	6,625
VE3EJ	5,900
VE3AT	5,507

Western Canada +	Official Points
VE7CC	10,183
VE5ZX	8,141
VA7ST	6,724
VE4EAR	5,216
VE6TL	5,098

At the time this column is being written 10 more contests have taken place and someone has attempted to use all 31 sets of numbers, both final and claimed, to forecast further down the road.

Eastern Canada +	Points + Claimed
VY2ZM	11,263
VE3DZ	10,541
VE3EJ	10,331
VA3DF	7,472
VA2WDQ	7,359

Western Canada +	Points + Claimed
VE7CC	10,838
VE5ZX	9,597
VE6EX	8,299
VA7ST	8,279
AL7IF	7,961

It looks like the two leading contenders for both sections are well settled in their positions, with others close behind, but be aware that not all the contenders publish their claimed scores! VE3AT is one example and there are bound to be more.

Note that others as well as Canadians are part of the two sections, such as AL7IF. As the horse race continues, watch out for further news or get it straight from the horse's mouth at <[www.wrtc2014.org/competitors/qualification-standings/](http://www.wrtc2014.org/competitors/qualification-standings/)>.

I hope you have enjoyed this special Contesting issue of TCA.

73 Bob, VE3KZ



### NCJ JULY NORTH AMERICAN QSO PARTY, RTTY

Call	QSO	Mult	Score
VA1CHP	492	121	59,532
VE3JI	341	114	38,874
VA7KO	328	117	38,376
VA7ST	351	103	36,153
VE3CX	322	92	29,624
VE7BC	310	91	28,210
VA7AM	269	95	25,555
VE6SQ	254	86	21,844
VE7IO	260	84	21,840
VA2UP	249	82	20,418
VA3DF	198	73	14,454
VE3YF	155	63	9,765
VE6AX	122	60	7,320
VE2FXL	113	46	5,198
VA5LF	111	44	4,884
VE3IAE	98	46	4,508
VA3WR	69	49	3,381
VE3FJ	87	29	2,523
VE7BGP	54	38	2,052
VA3FN	54	30	1,620
VE7FCO	31	19	589
VO1BQ	21	14	294
VE3VID	7	7	49



Bob Nash, VE3KZ  
5260 14th Sideroad, RR6  
Milton, ON L9T 2Y1  
Tel. 905-878-7382  
Email: ve3kz@rac.ca

Contest results courtesy of the Maritime Contest Club team

### NCJ August North American QSO Party, SSB

Call	QSO	Mult	Score	Cat
VY2TT (K6LA)	710	119	84,490	SO
VE2XAA	657	119	78,183	SO
VE3FWA	507	113	57,291	SO
VA3GKO	439	109	47,851	SO
VE3WRL	435	86	37,410	SO
VE1SKY	315	104	32,760	SO
VE7BC	383	85	32,555	SO
VE3CX	424	76	32,224	SO
VA2OP	310	86	26,660	SO
VE3RZ	304	81	24,624	SO
*VA3DF	277	81	22,437	SO
VE1BVD	166	74	12,284	SO
VE3TW	148	70	10,360	SO
VE4EAR	136	65	8,840	SO
VE3IAE	148	59	8,732	SO
VE3NR	148	58	8,584	SO
VE7WO	175	43	7,525	SO
VE3KZ	92	51	4,692	SO
VE3TKN	90	50	4,500	SO
VE7NA				
(VA7DSW, VE7BGP)	87	51	4,437	M/2
*VA3WR	74	52	3,848	SO
VE3WBT	81	45	3,645	SO
VA7IR	67	44	2,948	SO
VE3KPP	46	28	1,288	SO
VE3TU	36	27	972	SO
VA2LPQ	41	17	697	SO
VE3NCQ	22	15	330	SO
VA2FSQ	15	12	180	SO
VE8DW	9	9	81	SO
VE2GLA	9	7	63	SO
VE2FXL	4	3	12	SO
*QRP				

### NCJ AUGUST NORTH AMERICAN QSO PARTY, CW

Call	QSO	Mult	Score
VE3DZ	799	228	182,172
VE3EY	742	207	153,594
VE3JM	750	181	135,750
VE3OI	666	174	115,884
VE2XAA	637	171	108,927
VE3RZ	588	167	98,196
VE3CX	455	148	67,340
VA7ST	473	132	62,436
VA3DF	309	141	43,569
VE3GFN	293	120	35,160
VE3TW	278	116	32,248
VE4EAR	249	123	30,627
VE3UTT	272	112	30,464
VO2FF	295	92	27,140
VE7WO	265	85	22,525
VE3NR	225	99	22,275
VE3FWA	261	83	21,663
VA7RN	192	87	16,704
VE7JKZ	191	78	14,898
VE3RCN	157	84	13,188
VE9HF	147	86	12,642
VA5LF	150	82	12,300
VE3EJ	126	83	10,458
VA3SB	136	73	9,928
VA3WR	100	64	6,400
VE3FJ	119	46	5,474
VA2WA (VA2WDQ, op)	106	50	5,300
VE7BGP	66	44	2,904
VE2FK	61	37	2,257
VA3FN	52	34	1,768
VE3WDM	43	29	1,247

**DL-DX RTTY 2011**

Call	QSO	DXCC	Area	Score	Class
VA2UP	268	65	36	356,530	SOAB 6 HR
VE3UTT	176	46	27	175,200	SOAB 6 HR
VA7ST	195	33	46	169,850	SOAB
VA7KO	137	23	31	83,700	SOAB 6 HR
VE3IAE	104	27	15	59,640	SOAB LTD 6 HR
VE6SQ	41	10	16	11,050	SOAB LTD
VE2FK	16	8	6	2,940	SOAB 6 HR
VE3XAT	18	5	7	2,460	SOAB 6 HR

**RSGB IOTA CONTEST 2011**

Call	QSO	Mult	Score	Category
VC1D	1720	300	3,571,200	IOTA DXPN MS MIX 24H HP
VC1Z	921	173	1,065,507	IOTA DXPN MS MIX 24H HP
XM2I	931	178	1,031,154	IOTA DXPN MS MIX 24H HP
VE3ZZ/VY2	554	141	660,726	IOTA FIX SOA MIX 24H HP
VE2XAA	556	135	489,240	WORLD SOA MIX 12H LP
VE1DT	454	88	274,032	IOTA FIX SOU CW 24H HP
VE1AL	329	86	218,010	IOTA FIX SOU CW 24H LP
VE1RGB	361	83	205,425	WORLD SOA CW 24H LP
VE3UTT	182	91	179,634	WORLD SOA CW 12H HP
VE3IAE	238	80	155,040	WORLD SOU MIX 24H LP
VE3FWA	233	80	150,960	WORLD SOA MIX 24H HP
VA2WA	337	67	137,685	WORLD SOU CW 12H HP
VE2FXL	243	70	121,590	WORLD SOA MIX 12H HP
VE2FK	244	62	117,552	WORLD SOA CW 12H HP
VO1TA	416	41	102,336	IOTA FIX SOU MIX 12H LP
VE3NR	133	66	88,902	WORLD SOU MIX 12H LP
VE3FH	168	51	68,544	WORLD SOU CW 24H LP
VE3DZ	186	48	61,344	WORLD SOU MIX 12H LP
VE1ZD	147	46	55,614	WORLD SOA SSB 12H LP
VE3NEA	65	50	48,150	WORLD SOA CW 12H LP
VA7DZ	186	41	47,970	IOTA FIX MS MIX 24H LP
VE4AEO	137	44	47,652	WORLD SOU CW 12H LP
VE3FJ	123	38	33,630	WORLD SOU CW 12H LP
VA7ST	156	33	31,284	WORLD SOU CW 12H HP
VE2AWR/M	134	33	29,106	IOTA FIX SOU MIX 12H LP
VE3VHB	34	33	16,830	WORLD SOA MIX 24H HP
VE3CX	50	24	11,376	WORLD SOU MIX 12H HP
VE6TL	28	15	4,140	WORLD SOU MIX 12H HP
VA3GUY	31	11	3,135	WORLD SOU CW 12H LP
VE2KY	23	10	1,890	WORLD SOU SSB 24H LP
VE7RSV/P	48	7	1,764	IOTA DXPN SOU SSB 24H LP
VE7WO	48	7	1,680	WORLD SOU CW 12H LP
VE7NA	11	4	372	IOTA FIX MS MIX 24H LP
VA3RKM	3	0	0	WORLD SOU CW 12H QRP

**CQ WW VHF CONTEST 2011**

Call	QSO	Grid	Score	Class
VE7OXG	196	48	13,536	All band
VA2EW	147	81	11,907	6 M
VE3ZV	113	75	10,650	All band
VE5UF	117	79	10,112	All band
VE1SKY	121	64	7,872	All band
VE9AA	99	66	6,930	All band
VO1KVT	145	43	6,235	6 M
VE3HHT	31	26	1,196	Multi-Op
VE2HAY	26	19	570	All band
VE3IAE	22	18	396	6 M
VA7FC	27	10	380	All band
VE3TLT	16	12	288	QRP
VE2HIT	12	12	144	6 M
VE3VCF	13	10	140	All band
VA2RIO	6	6	36	6 M
VE3GTC	6	6	36	Hilltopper
VE4EAR	5	4	28	All band
VE1JF	4	4	16	6 M
VE3RKS	3	3	9	6 M

**10 GHz AND UP 2011**

Call	QSO	Score	Category
VE3NPB	74	11,319	UP
VE3SMA	75	10,580	UP
VE3FN (+VE3XV, VE3XR)	26	10,569	UP
VE3ZV	63	9,942	UP
VE3FHM	70	9,704	UP
VE3KH	42	6,495	10G
VE3MSC	30	4,819	10G
VE3CRU	11	1,701	10G
VE3NYZ	10	1,663	10G
VE3HHT	7	1,359	10G
VE3OIL	5	643	10G
VE7FYC	3	306	10G

**KANSAS QSO PARTY 2011**

Call	QSO	Mult	Score	Category
VE3KZ	325	102	81,494	SOHP
VE3GXW	88	49	10,049	SOLP
VA3GKO	81	46	7,652	SOLP
VE4EAR	57	34	4,994	SOHP
VE3QZ	32	23	1,672	SOHP
VE3BQ	24	11	728	SOLP
VE9ML	13	8	288	SOHP
VA7KO	4	4	48	SOLP

**YO DX HF CONTEST 2011**

Call	QSO	Mult	Score	Class
VE2/YO3ND	596	167	382,096	SOAB CW HP
VE9HF	215	79	64,385	SOAB MIXED HP
VA3AR	162	83	54,199	SOAB CW HP
VE2AWW	100	55	23,705	SOAB CW HP
VE3KAO	41	27	3,942	SOAB CW LP
VE3CX	28	21	2,898	SO 20M
VA2AAB	24	14	1,680	SOAB SSB LP
VA3RKM	14	12	600	SOAB CW LP
VE4EAR	11	11	550	SOAB MIXED HP
VE1ZA	3	3	36	SOAB SSB LP

**WAE DX CW 2011**

Call	QSO	Mult	QTC	Score	Class
VY2ZM	2,073	495	2,058	2,044,845	SO HP
VE3AT	1,813	441	1,818	1,601,271	SO HP
VA2EW	1,312	385	1,307	1,008,315	SO HP
VE3FWA	1,180	337	1,202	802,734	SO HP
VE3DZ	1,017	319	1,035	654,588	SO LP
VE2XAA	932	327	949	615,087	SO HP
VE7CC	692	219	719	309,009	SO HP
VE3RZ	499	272	496	270,640	SO HP
VE3CX	505	174	514	177,306	SO HP
VE3OSZ	331	239	336	159,413	SO LP
VE3TG	291	186	298	109,554	SO LP
VE6TL	292	143	289	83,083	SO HP
VE2FK	235	167	236	78,657	SO HP
VE1DT	208	176	209	73,392	SO HP
VE3UTT	204	176	199	70,928	SO LP
VE3NR	217	160	206	67,680	SO LP
VE9HF	283	215	0	60,845	SO HP
VA7ST	214	138	224	60,444	SO HP
VE5MX	248	114	250	56,772	SO HP
VE1ZA	187	150	187	56,100	SO LP
VE3IAE	196	132	199	52,140	SO LP
VE3TW	166	131	174	44,540	SO HP
VE3EY	237	84	244	40,404	SO LP
VE4YU	124	100	121	24,500	SO LP
VE2AXO	98	120	90	22,560	SO LP
VE1OP	119	90	125	21,960	SO HP
VE4AEO (VE3KI)	100	76	93	14,668	SO LP
VE3EJ	60	100	39	9,900	SO HP
VA3PL	47	80	45	7,360	SO HP
VA3SB	47	64	46	5,952	SO LP
VE7WO	92	56	0	5,152	SO LP
VA1CHP	52	50	50	5,100	SO LP
VA3GUY	74	54	0	3,996	SO LP
VA3RKM	38	57	10	2,736	SO LP
VE4EAR	25	32	26	1,632	SO HP
VA3FN	24	36	5	1,044	SO LP
VE7BGP	29	28	0	812	SO LP
VA3ATT	15	32	0	480	SO LP
VE3RCN	17	23	0	391	SO LP
VE2GLA	14	24	0	336	SO LP

**ARRL UHF CONTEST 2011**

Call	QSO	Mult	Score	Class
VA3ST	73	43	10,836	SO HIGH
VE7DXG	87	29	8,787	SO HIGH
VE3CRU/R	47	20	3,240	Rover
VE7FYC	48	16	2,736	SO LOW
VE3HHT	17	15	765	SO LOW



**IARU HF WORLD CHAMPIONSHIP 2011**

Call	QSO	Mult	Score	Class	Power
VY2ZM (K1ZM, op)	2,695	268	2,989,540	SO MIXED	HIGH
VE3EJ	2,537	274	2,544,638	SO MIXED	HIGH
VE3DZ	1,560	232	1,196,192	SO MIXED	LOW
N2WQ/VE3	1,007	192	673,920	SO CW	HIGH
VA1CHP	1,099	149	531,632	SO CW	LOW
VE1RGB	859	174	492,072	SO CW	LOW
VE1DT	684	151	359,380	SO CW	HIGH
VA7ST	928	121	351,626	SO CW	HIGH
VE7XF	668	151	339,448	SO CW	HIGH
VC9M	699	143	330,044	M/S	HIGH
VE3EY	739	138	322,230	SO CW	LOW
VO1MP	1,078	62	277,140	SO CW	HIGH
VE1ZA	545	139	237,690	SO MIXED	LOW
VE3IAE	543	113	191,987	SO CW	LOW
VE4YU	539	117	191,529	SO MIXED	LOW
VE7CT	407	138	183,816	SO MIXED	HIGH
VE2AWR	548	102	176,562	SO MIXED	LOW
VE2NGH	471	103	157,796	M/S	HIGH
VE3UTT	454	91	138,320	SO CW	LOW
VE3FH	357	116	127,252	SO CW	LOW
VA7KO	495	79	119,132	SO CW	HIGH
VE7IO	637	62	115,444	M/S	HIGH
VE7JKZ	421	84	110,208	SO CW	HIGH
VE2FXL	298	105	101,430	SO MIXED	HIGH
VE3GTC	355	94	100,580	SO CW	QRP
VE3TW	320	98	94,962	M/S	HIGH
VE3CX	279	95	76,570	SO MIXED	HIGH
VE9MY	198	121	75,988	M/S	HIGH
VE5MX	347	67	74,169	SO CW	HIGH
VE3OM	215	108	70,740	SO CW	LOW
VE7TG	257	89	68,174	SO MIXED	HIGH
VA3GKO	242	92	65,504	SO SSB	LOW
VO1HP	215	80	54,880	SO CW	HIGH
VE2GHI	253	66	50,820	SO CW	LOW
VE7MID	229	66	44,550	SO CW	LOW
VA7RN	200	68	42,092	SO CW	HIGH
VE1JS	153	71	35,713	SO MIXED	LOW
VE2HIT	202	80	34,880	SO SSB	LOW
VA2TTA	262	44	32,340	SO CW	HIGH
VE2EZD	159	56	26,096	SO CW	HIGH
VA6AM	204	42	25,284	SO CW	LOW
VE1SQ	122	53	22,684	SO SSB	LOW
VE3XB	197	38	21,204	SO CW	HIGH
VE3FJ	146	43	20,511	SO CW	LOW
VE3MCF	107	48	15,744	SO SSB	LOW
VE3XAT	93	53	14,787	M/S	HIGH
VA7DZ	147	34	14,518	M/S	HIGH
VA3RJ	106	45	13,275	SO CW	QRP
K2NV/VE3	97	39	11,895	SO CW	LOW
VA3EC	117	25	11,100	SO CW	HIGH
VA7ZT	101	33	10,329	SO MIXED	LOW
VY2LI	73	30	7,710	M/S	HIGH
VE2KOT	82	27	6,237	SO CW	LOW
VE3TLY/VE2	56	41	5,043	SO SSB	LOW
VE3MWA	66	26	4,992	M/S	HIGH
VE2DJN	99	20	4,880	SO CW	QRP
VA3TTU	51	35	4,585	SO SSB	HIGH
VA7IR	58	25	4,375	SO SSB	QRP
VA3WPV	50	28	3,332	SO SSB	QRP
VE8GER	38	26	2,626	SO SSB	LOW
VE2KY	36	18	2,376	SO SSB	LOW
VE6CMV	37	22	2,354	M/S	HIGH
VA3RKM	32	18	1,620	SO CW	QRP
VE3WDM	33	17	1,615	SO CW	QRP
VE2FK	45	11	1,551	SO CW	LOW
VE3SKX	34	14	1,456	M/S	HIGH
VA7MM	33	12	1,272	SO CW	LOW
VE2QV (VE2FFE, op)	32	12	1,236	SO CW	LOW
VA2RIO	27	21	1,197	SO MIXED	LOW
VE7BGP	20	12	720	SO CW	LOW
VA7HZ	20	13	624	M/S	HIGH
VE7NI	20	6	336	SO CW	LOW
VE2GLA	8	7	140	SO MIXED	LOW
VA3FN	6	2	26	SO CW	LOW
VE3LM	2	2	12	SO SSB	LOW

**SAINT LAWRENCE VALLEY REPEATER COUNCIL  
DONATES \$1000 TO RAC**

Radio Amateurs of Canada has received a \$1,000 donation for general revenues from the Saint Lawrence Valley Repeater Council. The SLVRC has been active for more than 35 years in coordinating and assigning VHF and UHF frequencies for repeater and linking systems in South Eastern Ontario and North Eastern New York State. The council has met regularly over the years and has featured presentations from repeater operators on the status of their systems and advents of new technology such as Packet Radio, APRS, IRLP, Echolink and D-Star Internet networked systems. The SLVRC has also supplied much of the information to the ARRL for their Repeater Directory for systems in the SLVRC geographic area and systems in Northern Ontario.

At the last SLVRC meeting on May 12, and after reviewing the Council's financial status, it was determined there was surplus money to the needs of the council, which accrued over the years from membership dues and revenue obtained from the ARRL for submitting annual repeater information. As a consequence, it was proposed by the Executive and approved by the SLVRC membership attending the meeting, that \$1,000 be sent to RAC to be used by the organization as needed for the betterment of Amateur Radio in Canada.

The RAC Executive and Board of Directors thank the Saint Lawrence Valley Repeater Council for this generous donation.

The SLVRC website can be found at <[www.slvrc.org/](http://www.slvrc.org/)>.

*(Prepared by Norm Rashleigh, VE3LC)*

**SARTG WW RTTY CONTEST 2011**

Call	QSO	Mult	Score	Category
VE7CC	1037	247	3,324,620	SOAB
VA2UP	1085	227	3,301,715	SOAB
VA7ST	371	131	596,705	SOAB
VA7KO	370	79	366,560	SOSB 20M
VE3VID	233	107	347,750	SOAB LP
VE7IO	270	100	316,500	SOAB
VE7BSM	215	84	200,760	SOAB LP
VA2UP	264	60	199,800	SOSB 40M
VE2EBK	229	61	179,035	SOSB 20M
VE3FH	143	87	156,600	SOAB LP
VY2MP	146	79	141,015	SOAB LP
VE2FU	58	35	26,075	SOAB
VE2FU	50	27	17,280	SOSB 40M
VA3TTU	40	26	15,340	SOSB 20M
VE7HBS	88	17	14,790	SOSB 20M
VE3AJ	22	15	4,725	SOSB 20M
VA5RI	15	18	3,060	SOAB LP
VE6DJT	9	9	990	SOSB 20M

**SCC RTTY CHAMPIONSHIP 2011**

Call	QSO	Mult	Score	Category
VE7CC	754	208	380,640	SO Assist
VE2FXL	423	172	185,416	SO Assist
VE2EBK	310	156	119,652	SO Assist
VE3KAO	250	146	91,834	SO LP
VA7ST	196	112	47,712	SO HP
VE3FH	161	112	45,024	SO LP
VE2FK	162	74	30,858	SO Assist
VE3IAE	150	87	30,537	SO LP
VE3TES	157	81	28,593	SO Assist
VA2UP	136	75	26,775	SO Assist
VE5MX	177	64	26,752	SO Assist
VE6SQ	68	52	7,696	SO LP
VE4EAR	63	51	7,650	SO HP
VE7HBS	63	36	4,212	SO HP
VE3VID	14	13	520	SO LP

## CONTEST CALENDAR FOR MAY, JUNE AND EARLY JULY 2012

Contest Name	Start	End	Web Address
Canada Day Contest	0000z July 1	2359z July 1	<a href="http://www.rac.ca/service/infocont.htm">http://www.rac.ca/service/infocont.htm</a>
MI July 4th QRP CW Sprint	2300z July 4	0300z July 5	<a href="http://www.qsl.net/miqrpclub/">http://www.qsl.net/miqrpclub/</a>
Venezuelan Independence Day	0000z July 7	2359z July 8	<a href="http://www.radioclubvenezolano.org/rules.htm">http://www.radioclubvenezolano.org/rules.htm</a>
DL-DX RTTY Contest	1100z July 7	1059z July 8	<a href="http://drcg.de/index.php?lang=en">http://drcg.de/index.php?lang=en</a>
QRP ARCI Summer HB Sprint	2000z July 8	2359z July 8	<a href="http://www.qrparci.org/">http://www.qrparci.org/</a>
FISTS Summer Sprint CW	0000z July 13	0400z July 13	<a href="http://www.fists.org/sprints.html">http://www.fists.org/sprints.html</a>
IARU HF World Championship	1200z July 14	1200z July 15	<a href="http://www.arrl.org/iaru-hf-championship">http://www.arrl.org/iaru-hf-championship</a>
NAQCC Sprint	0130z July 18	0330z July 19	<a href="http://naqcc.info/">http://naqcc.info/</a>
CQ WW VHF	1800z July 21	2100z July 22	<a href="http://www.cqww-vhf.com/">http://www.cqww-vhf.com/</a>
NA QSO Party RTTY	1800z July 21	0600z July 22	<a href="http://www.ncjweb.com/">http://www.ncjweb.com/</a>
RSGB IOTA Contest	1200z July 28	1200z July 29	<a href="http://www.rsgbcc.org/hf/rules/2012/riota.shtml">http://www.rsgbcc.org/hf/rules/2012/riota.shtml</a>
ARLHS Lighthouse/Lightship Week	0001z Aug 1	2400z Aug 8	<a href="http://arlhs.com/activations.html">http://arlhs.com/activations.html</a>
TARA Grid Dip Digital Contest	0000z Aug 4	2400z Aug 4	<a href="http://www.n2ty.org/seasons/tara_grid_rules.html">http://www.n2ty.org/seasons/tara_grid_rules.html</a>
10-10 Int. Summer SSB	0001z Aug 4	2400z Aug 5	<a href="http://www.ten-ten.org/">http://www.ten-ten.org/</a>
ARRL UHF Contest	1800z Aug 4	1800z Aug 5	<a href="http://www.arrl.org/august-uhf">http://www.arrl.org/august-uhf</a>
NA QSO Party CW	1800z Aug 4	0600z Aug 5	<a href="http://www.ncjweb.com/">http://www.ncjweb.com/</a>
WAE DX Contest CW	0000z Aug 11	2359z Aug 12	<a href="http://www.darc.de/referate/dx/contest/waedc/en/">http://www.darc.de/referate/dx/contest/waedc/en/</a>
MDC QSO Party	1600z Aug 11	0400z Aug 12	<a href="http://mdcsoparty.w3vpr.org/">http://mdcsoparty.w3vpr.org/</a>
MDC QSO Party	1600z Aug 12	2400z Aug 12	<a href="http://mdcsoparty.w3vpr.org/">http://mdcsoparty.w3vpr.org/</a>
NAQCC Sprint	0130z Aug 14	0330z Aug 15	<a href="http://naqcc.info/">http://naqcc.info/</a>
SARTG WW RTTY	0000z Aug 18	1600z Aug 19	<a href="http://www.sartg.com/contest/wwrules.htm">http://www.sartg.com/contest/wwrules.htm</a>
ARRL 10 GHz Cumulative	0600 Aug 18 *	2400 Aug 19 *	<a href="http://www.arrl.org/10-ghz-up">http://www.arrl.org/10-ghz-up</a>
KCJ Contest	1200z Aug 18	1200z Aug 19	<a href="http://www.kcj-cw.com/e_index.htm">http://www.kcj-cw.com/e_index.htm</a>
Russian Districts Contest	0800z Aug 18	0800z Aug 19	<a href="http://rdaward.org/indexeng.htm">http://rdaward.org/indexeng.htm</a>
NA QSO Party SSB	1800z Aug 18	0600z Aug 19	<a href="http://www.ncjweb.com/">http://www.ncjweb.com/</a>
Kansas QSO Party	1400z Aug 25	0200z Aug 26	<a href="http://www.ksqsoparty.org/rules/">http://www.ksqsoparty.org/rules/</a>
Kansas QSO Party	1400z Aug 26	2000z Aug 26	<a href="http://www.ksqsoparty.org/rules/">http://www.ksqsoparty.org/rules/</a>
Hawaii QSO Party	0400z Aug 25	2200z Aug 27	<a href="http://www.karc.net/">http://www.karc.net/</a>
Ohio QSO Party	1600z Aug 25	0400z Aug 26	<a href="http://www.ohqp.org/adminRules.htm">http://www.ohqp.org/adminRules.htm</a>
SCC RTTY Championship	1200z Aug 25	1159z Aug 26	<a href="http://lea.hamradio.si/scc/rtty/rtty.htm">http://lea.hamradio.si/scc/rtty/rtty.htm</a>
YO DX HF Contest	1200z Aug 25	1200z Aug 26	<a href="http://www.radioamator.ro/contest/">http://www.radioamator.ro/contest/</a>
Russian RTTY WW Contest	0000z Sept 1	2400z Sept 1	<a href="http://www.qrz.ru/contest/detail/93">http://www.qrz.ru/contest/detail/93</a>
All Asia SSB Contest	0000z Sept 1	2400z Sept 2	<a href="http://www.jarl.or.jp/English/0-2.htm">http://www.jarl.or.jp/English/0-2.htm</a>
Tennessee QSO Party	1800z Sept 2	0300z Sept 3	<a href="http://tnqp.org/wp/">http://tnqp.org/wp/</a>
MI Labour Day QRP Sprint	2300z Sept 3	0300z Sept 4	<a href="http://www.qsl.net/miqrpclub/">http://www.qsl.net/miqrpclub/</a>

*Note: In the chart above an \* indicates Local Times*

Check these online sites for more contest information: <[www.hornucopia.com/contestcal/weeklycont.html](http://www.hornucopia.com/contestcal/weeklycont.html)>; <[www.contesting.com](http://www.contesting.com)>; <[www.sk3bg.se/contest/](http://www.sk3bg.se/contest/)>; <[www.arrl.org/contests/calendar.html](http://www.arrl.org/contests/calendar.html)>; <[www.arrl.org/contests/rate-sheet/about.html](http://www.arrl.org/contests/rate-sheet/about.html)>; and <[www.cq-amateur-radio.com/awards.html](http://www.cq-amateur-radio.com/awards.html)>.  
The "Contest Calendar" is presented as a guide only. RAC and TCA do not necessarily endorse or support any of the above contests or the accuracy of the information.  
Bands: The 30, 17 and 12m bands are never used in any contest.

## RAC ONLINE STORE: RAC – CAFÉPRESS SITE

[http://www.cafepress.ca/rac\\_radio](http://www.cafepress.ca/rac_radio)





# SECTION NEWS

## THE RAC FIELD ORGANIZATION FORUM

### MESSAGE FROM THE RAC CHIEF FIELD SERVICES OFFICER

With summer in full swing, I hope you have found time to spend with friends and family. As I write this message it's May 23 and yesterday we enjoyed 22 degree temperatures in St. John's, which is unusually hot for May. I hope as you read this it is at least 22 degrees or warmer.

#### ARES Deployment Vests

I have a good supply of vests available to ARES members at the low cost of \$35.99. These vests have lots of pockets and fit up to 5X. You can see a picture of the vests on the RAC website at <[www.rac.ca/fieldorg/aresvests.htm](http://www.rac.ca/fieldorg/aresvests.htm)>.

I am also currently negotiating with a supplier for an ARES deployment cap. They will be "safety green" like our vest and will have a fluorescent band. I'm not sure what the cost will be yet.

#### ARES ID Cards

When you are deployed in the public service, it's crucial that you carry the proper credentials.

Our ID Cards carry the information necessary when crossing a police line or generally entering any restricted area.

We now print these cards "in house" with a 48-hour turnaround so if you are an ARES team member and don't have a card simply apply online.

If you have a card that is expired, simply re-apply as if you are applying for a new card with up-to-date information.

#### ARES Merchandise at CafePress

I have just requested that additional ARES merchandise be made available at CafePress along with all RAC merchandise.

Look for caps, t-shirts, denim shirts, polo shirts, clocks, drink ware, ladies ARES shirts along with other items sporting the ARES logo.

Credentialing items like vests and ID cards will only be available from the CFSSO as well as pins, crests, door magnets etc.

#### Ontario Restructuring Commission

I would like to say thank you to the Ontario Restructuring Commission under the guidance of Director Bill Unger, VE3XT. They have led the work of revamping the Ontario Section to better ensure member experience and to give our new Ontario Section Managers an opportunity to get out to as many Club meetings as possible.

The restructuring is to ensure that communication to and from the RAC Executive and Board is as effective as possible. To assist with this important goal, watch for regular teleconferences with the Executive and Board open to Club Presidents and members coming early this fall. Your thoughts and ideas are important to us!

As I said earlier, get out and enjoy our beautiful summer with your families, and as you venture into unfamiliar parts of Canada, stay safe.

Have a great summer!

*Doug, VO1DTM CEC  
Chief Field Services Officer*

The Coast Emergency Communication group sent members to a training day with the Comox Valley Ground Search and Rescue team. Valuable information was shared and it was time well spent. The efforts are ongoing to enhance communication systems available to the ground search teams. Interagency training days such as these can only serve to meet that goal.

As this report is being written British Columbia is entering the freshet season. Snow packs in all regions of the Province are above average and there is concern of flooding in several locations. The warm weather is a few weeks late so that has given extra time to plan and prepare. ARES groups in various areas are keeping an eye on water levels. Hopefully the warm-up will be slow!

The work of the RAC Training Specification Group continues and headway is being made. This is a time consuming and slow process that needs to be done if we are to have a worthwhile ARES manual. BC's participation in this group continues.

There was a lot of activity during Emergency Preparedness Week, some of which has been reported online at <[www.va7mpg.ca](http://www.va7mpg.ca)> More information will be available in my next report.

There are still some positions available on the Section secretariat. If you are interested in helping please contact me. When I assumed this position I expected there would be some work, but I had no idea of the amount of work that goes on behind the scenes to make RAC a better organization. Headway is being made in many areas and the more hands that help, the lighter the load for all. I look forward to hearing from you. Enjoy the summer weather, stay safe and spend some time on the air.

**BC Public Service Honour Roll  
March 2012:**  
VA7MPG 77, VE7DXD 170



**CHIEF FIELD SERVICES OFFICER**

Doug Mercer, VO1DTM  
Box 1042  
84 Main Road  
Goulds NL A1S 1H2  
Tel. 709-364-4741  
Email: vo1dtm@rac.ca

and VE7WJ 100.

**April 2012:**  
VE7DXD 160, VE7MPG 219  
and VE7WJ 88.

**Official Bulletin Service**  
Bulletins relayed:  
March: 96  
April: 72

– 73, Paul, VA7MPG

### ALBERTA:

SM: Garry Jacobs, VE6CIA  
SEC: Curtis Bidulock, VE6AEW  
STM: Jack Humphries, VE6JRH  
OOs: Tom Martens, VE6TRM  
Don Momen, VE6JY

### MARCH-APRIL 2012 SM REPORT:

On March 17, Alberta SM, Garry, VE6CIA, put on an ARES presentation at the Three Hills Amateur Radio Club meeting. The meeting was also attended by a Field Officer from the Alberta Emergency Management Agency (AEMA), the Director of Emergency Management for Kneehill and the Director of Emergency Management for Hanna. Good information was shared between all groups and a new ARES section was created with EC Rolie, VE6SW, at the helm.

Another Amateur Radio course was offered in Red Deer on March 24-25 resulting in 14 people writing the exam and 13 obtaining their licence.

The Alberta Emergency Management Agency hosted a day-long seminar in Red Deer on March 28. Garry, VE6CIA, was invited to participate and make a presentation to the room full of Emergency Management people from different disciplines, municipalities and counties around Central Alberta. It was a great forum for explaining how Amateur Radio can assist in the area and I'm sure will be included in more Emergency Plans on a go forward basis.

### BRITISH COLUMBIA:

SM Paul Giffin, VA7MPG  
A/SM Ron McFadyen, VY1RM  
A/SM Neil King, VA7DX  
STM Al Ross, VE7WJ  
SEC (Yukon) Terry Maher, VY1AK  
OBM Bill Foster, VE7WWW

### MARCH-APRIL 2012 SM REPORT:

In March, the Surrey Emergency Program Amateur Radio Society presented an Amateur Radio workshop for kids at the Surrey Museum. This event was well received and is reported in the Public Service / ARES column on page 48.

In early April, the West Vancouver Yacht Club hosted their 46th Annual Southern Straits Sailing Race. This year's event went without incident, which was a change from 2010 which had several

serious events. Amateur Radio now plays a communications role. The Coquitlam Amateurs participated in the race again this year.

Emergency Management British Columbia recognized Amateur operators involved with emergency traffic during National Volunteer Week in April. Amateur operators are part of the Public Safety Lifeline Volunteer Program. The Provincial Emergency Radio Communications Service is the radio arm for Emergency Management British Columbia. For more information you can go to <[www.percs.bc.ca](http://www.percs.bc.ca)>.

In early April, the Island Trunk System on Vancouver Island added a repeater on the west coast. The repeater provides coverage to the Tofino,

Ucluelet, Bamfield and portions of the Pacific Rim National Park and is linked into the Island Trunk. This repeater has some unique operating features.

The repeater itself operates as a "normal" repeater. The signal is transferred from the repeater for a short Internet hop. From the Internet it enters the microwave system. Once on the east side of Vancouver Island it leaves the microwave system back to the Internet. Another short hop on the Internet then it goes 100 kilometres on a 5.8 GHz system to a repeater. This is a non-technical description, but the repeater works well into the system and provides a very important link. For more information on this system please see <[www.islandtrunksystem.org](http://www.islandtrunksystem.org)>.

The town of Eckville has approached ARES Red Deer for assistance in setting up emergency communications for their town. EC Jeff, VA6JL, is working with them to provide antennas on their tower and radios for use for disaster or exercises in the future.

The local Central Alberta Amateur Radio Club members were invited to attend a Volunteer Appreciation event sponsored by the Red Deer County on April 18. The club general meeting was postponed one week to accommodate this event.

The town of Hardisty has approached the Southern Alberta Repeater Association (SARA) for assistance and guidance in what is needed to provide emergency communications in their area should it ever be required. The SARA repeater linking gurus – Curtis, VE6AEW, Ray, VE6RHS and Kiernan, VA6IP – checked out the requirements and within several days had a temporary simplex repeater linked into the SARA system and set up to demonstrate what we can do for them. They plan on buying a VHF repeater and having it available to be linked into the SARA system when desired.

A young fellow who had self-studied, called Garry, VE6CIA and asked to take the Basic exam on April 23 in Red Deer. He obtained a mark of 90% and happily filled out his application for Amateur Certificate immediately. Well done.

New volunteers Jonathan Hamon, VA6JCH and Ian Burgess, VE6EMS, have offered to serve as EC and AEC under the direction of DEC Doug, VE6CID, for the southern area of Alberta. It's great to have new ARES activity anywhere going forward. Thanks for stepping up to the plate fellows.

#### SEC Report

*Curtis Bidulock, VE6AEW:*

I would like to welcome a few more Emergency Coordinators to the Section this month. The first is Gary, VE6GD, for ARES Camrose, who is joined by his AEC Gordon, VE6ORD. I would like to also thank Jim, VE6MO, for his assistance with supporting ARES in the area as an individual member, prior to the formation of the group.

The second is Larry, VE6LGB, for ARES Warner County, who is joined by his AECs Geoff, VA6GSM and Rob, VE6XMB.

#### Amateur Radio Emergency Service (ARES) Alberta

*ARES Wood Buffalo:*

This is the first time that Wood Buffalo ARES or anyone from the Fort McMurray area has been able to join in on VHF/UHF Nets around the province in over three years. Thanks to our two new repeaters that are linked 24/7 and have direct

IRLP and Echolink nodes from our site at VE6TRC on Stoney Mountain that covers a radius of approximately 100 kilometres.

We are looking forward to getting our repeater and UHF link at May Hills to complete a 450 kilometre RF Link to SARA and Edmonton. (*– Curtis Bidulock, VE6AEW*)

Thanks for the contribution Curtis. I appreciate your efforts and particularly given the super busy time of your life right now.

Have a great summer one and all.

*73, Garry Jacobs, VE6CIA*

#### MANITOBA:

SM: Jan Schippers, VE4JS

STM: Jan Schippers, VE4JS

SEC: Vacant

DECs: Jeff Dovyak, VE4MBQ (Capital Region and CanWarn); Gord Snarr, VE4GLS (South-East Central Region / South-West Region); Wayne Warren, VE4WVR (North Region and Special Projects); Vacant (North-Eastern Region); Vacant (North-West Region). EC Ron Willisroft, VE4QE (Selkirk and District)

#### MARCH-APRIL 2012 SM REPORT:

We can't build things as easily as in the past but at the March meeting of the Winnipeg ARC members had a great time constructing "Tape Measure" Yagis. These antennas are easily built and are ideal for quick deployment.

On Sunday, April 29 a group of 15 "hunters" headed out to the woods of Whittier Park to find the elusive fox in WARC's first Transmitter Hunt in a while. Thanks to Garth Blumm, VE4GWB, for spearheading this event.

#### Winnipeg ARES Report

*Jeff Dovyak, VE4MBQ*

Fourteen ARES members and affiliates provided approximately 120 person-hours of volunteer Amateur Radio communications support for the Scouts Canada Klondike Derby on March 3 and 4 at Camp Amisk. Some 410 scheduled communications were tracked in addition to approximately 100 unscheduled items that came up in addition to two dispatches for First Aid services. Special thanks to Bob Poole, VE4MAQ, for picking up and returning the ARES Boler to WFPS EMSB and for coordinating the event and to Glen Napady, VE4GWN, for setting up cross-band access to the VHF working frequency again. VE4 operators were: JHJ, CDM, GWN, WTF, MBQ, KAZ, TRO, GMB, GWB, KEH, CIB, CLK, MAQ and Jeffrey Kazuk. Rob, VE4RAI, was on call both days as our backup operator.

Our March General Meeting featured a presentation on the SPOT Satellite Messenger and related devices by Luke Dovyak WTF, Optics Lead Outfitter at

## WINNIPEG ARC CADET CLASS GRADUATES

In recent years the Winnipeg ARC has made several efforts to attract individuals, especially youth, into Amateur Radio.

Two courses were held for Air Cadets: one at the Seniors and one at the Red River College (RRC).

A condensed Basic course was offered to students already taking electronics at RRC.



At WARC's 2011 Field Day special invitations were sent to Navy Cadets. Those who attended were given opportunities to get on the air and get a unique Contact Card from WARC. The Winnipeg Senior Citizens Radio Club and WARC joined to host Kids Day and the Guides On The Air. WARC's latest initiative has been to offer the Introduction to Amateur Radio course to the Fort Garry Horse Army Cadets.

The following Cadets were presented Certificates of Completion from WARC by Chief Instructor David Rosner, VE4DAR, at a parade of 1226 Fort Garry Horse RCACC:

*Cdt Sheehan Andres, Sgt David Cormack, Cdt David Cummings, Cdt Gabriel Fontaine, Cdt Lucas Loane, Cpl Robert Main, Cdt George McFarlane, and Sgt R J Scott. Several Cadets expressed interest in getting the Basic Certificate from Industry Canada.*

We thank Capt. Marilyn Gass, Commanding Officer, for giving WARC the opportunity to conduct Cadet Course 1. These instructors and 2Lt Stephane Guindon made the course possible: Ruthie VE4CRS, Jim VE4CY, Bob VE4RCJ, Ed VE4EAR, Alex VE4AIM, Jim VE4SIG, Lior VE4DXR, David VE4DAR. Thank you for your time and efforts.

*– David Rosner, VE4DAR*

Cabelas. Now that Dick, VE4HK and Jim, VE4GZ, have completed the Winnipeg Emergency Management (WEM) Course, 65% of Winnipeg ARES membership have completed the WEM Course or equivalent.

Approximately 28 Amateurs participated in CanWarn Spotter Training on Saturday, March 24 in Selkirk. I would like to thank ARES Public Information Officer (PIO) Jim Sutton, VE4SIG, for sending out ARES Press Release 2012-01.

We have recently received some equipment donations for operational use thanks to:

- Mrs. Helen Deeley for donating the HTX-202 HT that belonged to her late husband Frank, VE4DEL
- Ray Eidse, VE4HF, for donating an HTX-202 HT
- Rolf Bandlow, VE4VZ, for replacing the memory battery in one of our HTs.

Ed, VE4EIH and Rosi, VE4YYL did a great job preparing for and running the Winnipeg ARES Silent Auction at the recent WARC Spring Fleamarket. Thanks also to Mariska, VE4MMG, Susan, VE4SYM and Glen, VE4GWN, for helping out at the table. It is almost impossible to properly thank all those who support Winnipeg ARES

operations by purchasing Silent Auction Tickets or donating items to the various prize lots. The winners of the Silent Auction Prize were:

- Lot #1 – Pat Haertel
- Lot #2 – Art, VE4ART
- Lot #3 – Greg, VE4GMB
- Lot #4 – Carol Bates
- Lot #5 – Grant, VE4GAS
- Lot #6 – David, VE4DAR
- Lot #7 – Grant, VA4GD
- Lot #8 – Gordon, VE4MSM
- Lot #9 – Lynda, VE4LYN

Lot #10 – went unclaimed and is to be used for our next Silent Auction.

The list of Prize Donors was still being compiled at Press Time.

Thanks to everyone who participated in Exercise #102, signal penetration testing at the Marathon Care Centre. In last year's Manitoba Marathon, operators shadowing key medical personnel were generally unable to access the Medical Net Repeater and found that using VHF simplex to connect with the Comm Centre was not always reliable. Our Bike Mobile operator also had difficulty in accessing the Medical Repeater when mobile in the Wolseley area. Thanks to Richard, VE4ESX,



for building a 2m Yagi and bringing it out for testing. Thanks also to Darcy, VE4DDW and Richard, VE4KAZ, for bringing out the portable UHF Repeater belonging to the Mobile Emergency Communication Group.

This year, to ensure that medical "shadows" in the Care Centre can connect with the Medical Net controlled from the Comm Centre, we are going to set up a passive VHF antenna system at the Care Centre and utilize the MEC Portable UHF Repeater just outside the Care Centre to connect to Net Controllers in the Marathon Comm Centre if necessary. At the test, we also tried alternating antennas for the Medical Repeater; thanks to University of Manitoba Amateur Radio Society for their ongoing support by allowing use of VE4UMR and also the temporary antenna swapping for the day. The 12 participants at the test were VE4s: ACX, AJO, SCH, STS, RST, ESX, CDM, DDW, KAZ, MBQ, Laurie Penton & Jeffrey Kazuk.

Since our March General Meeting featured a presentation on Call-Outs & Equipment it seemed only natural to continue in that vein for April as well which featured short presentations by five ARES members focusing on how they have personalized their emergency radio equipment. Presenters were: Kent, VE4KEH, Glen, VE4GWN, Garth, VE4GWB, Gerry, VE4GKS and Jim, VE4SIG.

I would like to welcome the newest Winnipeg ARES member Kurt Sargent, VE4CHT.

#### Traffic Totals

March: 11  
April: 2

#### ONTARIO:

SM: Allan Boyd, VE3AJB  
Email: ve3ajb@vianet.ca  
SEC: Scott Carter, VE3CGN  
Email: ve3cgn@gmail.com  
ASM: Michael Hickey VE3IPC  
Email: ve3ipc@aol.com  
STM: Vacant

#### MARCH-APRIL 2012 SM REPORT:

After many years of service a very dedicated Amateur has stepped down for personal reasons from the Field Services. Glenn Killam, VE3GNA, Section Traffic Manager for Ontario, oversaw the National Traffic System for Ontario and kept track of many messages and traffic nets. I know I speak for many Amateurs when I say that Glenn will be sadly missed. I want to thank Glenn for his dedication to the NTS for many years and wish him best on his new endeavours.

If anyone is interested in talking on the Ontario STM role please contact me. I thank you for your continued support as all your efforts are truly appreciated.

#### ACTIVITIES

##### GTA District (GTA West – Grand North):

Oakville ARES assisted Burlington ARES and TB Radio Communications with communications for the Chilly Half Marathon on Sunday, March 4. The event ran through the Lakeshore area of Burlington and raised funds for the Cancer Clinic at Joseph Brant Memorial Hospital. The following Oakville ARES members participated in the event: VA3NV, VE3OGP, VA3PRE, VE3DDL, VE3ROR, VA3WXR, VE3JUZ, VA3SBB and VA3CQC.

Both the Monday night Oakville ARES net and the Tuesday evening HRECT net continue to operate. Both nets have had a respectable number of checkins over the last few months. Net manager Peter, VA3PRE, is looking for volunteers to share the NCS duties for the HRECT net.

**Peel Region:** Richard Upfield, VA3RMU, reports that on Saturday, March 3, the Brampton-Caledon ARES group participated in a joint simulated exercise conducted by the Red Cross (Brampton office), joined by members of the Mississauga ARES and York ARES groups. We operated from four locations: a Red Cross shelter, the Red Cross OZONE Centre, Meals on Wheels, and a Net Control Station using both phone and packet communications. This involved a total of approximately 30 radio operators over a period of 9 hours (0800 to 1500 hours).

The exercise was an eye opener to the fact that many of our ARES members need further training in various aspects of participating in an emergency. The result of this is that we are now planning training that we expect will be conducted by all the ARES groups in our region so that we can all operate from the "same page" the next time that such an exercise is conducted.

**Mississauga ARES:** Mississauga ARES, along with members of Brampton ARES and York Region ARES, participated in a Region of Peel Red Cross SET on Saturday, March 2. From the Mississauga ARES perspective this SET was unique in that it was scheduled to run for 9 hours which would allow us to run three 3-hour shifts. In addition, the members from the various ARES groups were working side-by-side rather than each group working together.

The Red Cross initially planned the SET to exercise their volunteers in setting up and running an emergency shelter and requested a communications station in the shelter.

The Brampton ARES EC Richard Upfield, VA3RMU and Mississauga ARES EC, Daniel Goodier, VE3NI, seeing an opportunity to exercise the groups, added three additional

#### MARK YOUR CALENDARS

The RAC Simulated Emergency Test (SET) is set for October 13-14. This nationwide exercise is the chance to test your emergency operating skills and the readiness of your communications equipment and accessories in an emergency-like deployment. RAC Field Organization Leaders at the Section and local levels, along with many other volunteers who are active in public service and emergency communications, are developing simulated emergency scenarios in consultation with served agencies.

To find out how you can step up and be a part of the local or Section-level activities, contact your Section Manager. You can find contact information for all RAC Section Managers on page 4 of any issue of The Canadian Amateur. Additional contact information may also be found on the RAC website.

The Amateur Radio Emergency Service (ARES) and the National Traffic System (NTS) and members of the RAC Field Organization will participate and practice emergency operation plans, nets and procedures.

The RAC Simulated Emergency Test is an ideal opportunity to demonstrate the capabilities of Amateur Radio. Community and public service agency officials will learn first-hand by taking a role in the SET and by providing an objective evaluation afterwards from their perspective. Have designated stations originate messages on behalf of served agencies. Test messages may be sent simulating requests for supplies. Simulated emergency messages (just like real emergency messages) should be signed by an authorized official.

Formulate your plans around a man-made or natural simulated disaster. Possible scenes could be; a flood, a serious fire, a severe ice storm, a missing person, a serious accident (automobile, bus, aircraft), a broken gas line or any other imaginable disaster. Elaborate on the situation by developing a scenario to be implemented during the SET.

In consideration of local and Section-wide schedules with agencies and many others, RAC Field Organization Leaders have the option of conducting their local or Section-wide SET on another weekend in the fall season. Check with your local RAC Field Organization leadership for the exact date in your particular area. Your help is needed and the RAC SET is a great way to get involved in emergency communications.

For more information on guidelines, preparing and reporting for a SET, forms for RAC Field Leaders are posted on the RAC website at <[www.rac.ca/en/rac/public-service/ares/simulated-emergency-test/](http://www.rac.ca/en/rac/public-service/ares/simulated-emergency-test/)>.

stations to the communications part of the SET. Those stations were Net Control (NCS), OZONE (Ontario Zone Head Office), Mississauga Meals on Wheels, and of course the SET shelter location.

This SET proved to be very educational and will lead to more integrated SET where possible. The recurring comment from the feedback was that the members enjoyed working side-by-side with ARES members from other groups. The feedback also provided the basis for the group to develop a training plan going forward.

The participants from Mississauga ARES were: Michael Brickell, VE3TKI, John Duffy, VE3DRZ, John Lorenc, VA3XJL, Lorne Jackson, VE3CXT, Bob Boyer, VE3XBB, Bryan L Jay, VA3BLJ, Steve Kiss, VA3SKC, Thomas Gernon, VE3ETG, Paulo Lopes, VA3PGL, Earle Laycock, VE3XEL, Bob Hudson, VE3CWU, Reg Vertolli, VA3JQA, Peter Mosher, VA3PKM, Robert Emerson, VE3RHE, Emanuel Cortay, VA3IJI, Ed Spingola, VA3TPV, Basil Burgess, VE3JEB, Hector Martinez, VA3HNL, Thomas Gernon, VE3ETG, Barry

Leibner, VE3LBL, Brian Alexander, VA3AZA, Thomas Bernard, VA3TMB and Daniel Goodier, VE3NI.

##### Capital/Seaway District:

The SD&G ARES group is being created with efforts of the Cornwall ARES to expand throughout the United Counties of Stormont, Dundas & Glengarry – SD&G.

The expansion from the former "City of Cornwall ARES" continues. Following the EC's Skype meeting held earlier in 2012, the ARES leadership team had their first face-to-face meeting as AECs on March 27 at his home. It is envisioned there will be one AEC for each of the seven municipalities within SD&G with Earle, VE3IMP, working as the group's EC.

The equipment currently held at the City of Cornwall's two locations will be removed while the antennas remain. This will allow the group to deploy to any of the locations where we have previously agreed to provide emergency communications.

Each of the AECs below has agreed to review the proposed agreements with each of the seven municipalities. The EC plans to

write a letter to each Mayor with a copy to the Community Emergency Management Coordinator (CEMC or similar) in each of the municipalities within SD&G. That letter will be accompanied with the respective agreement.

SD&G-ARES current AECs are:

1) Bill Shearing, VE3UTG – Townships of North and South Dundas and the United Counties.

2) Ed Halliwell, VE3FHI, – Township of South Stormont

3) Doug Pearson, VE3HTR – City of Cornwall

4) Hal Green, VE3HWG – Township of South Glengarry

5) John Howieson, VA3JO – Township of North Glengarry.

Their alternates will be named in the near future.

The groups plan to provide emergency services to the Glengarry Hospital continue and association with the Cornwall Community Hospital (McConnell Street Site – the former Hotel Dieu hospital) continues.

The EMRG/Ottawa ARES group conducted its usual monthly test of their repeaters in East, Central, West and South Ottawa, plus UHF in central Ottawa and VE2CRA, the club repeater of the Ottawa ARC. The voice repeater tests were headed by Dave, VE3KMV, with the participation of Joe, VE3EUS, Bob, VA3QV, Arthur, VA3BIT, Mike, VE3KOY and Stuart, VE3SMF. The BBS and Winlink VHF gateways were also tested and found to be operational.

The Renfrew County East (RCE)-ARES group had a meeting with Admaston/Bromley Township's Emergency Management Group on Tuesday, April 3 so they could find out what ARES could do for them in the case of an emergency in their township. The meeting was called to order at 19.30 in the township offices. Community Emergency Management Coordinator (CEMC) Bill Boles introduced the members of his group. RCE-ARES meeting participants were: EC Ron, VE3JRN, AEC Jim, VA3JER and AEC Paul, VA3COG. Fred, VA3FPB, of the RCW-ARES group was also present. Fred gave a short talk on what ARES could do for the Township in the case of an emergency using his experience with the ice storm of a few years ago as a reference.

From within the township office these ARES members activated three repeaters using a handheld radio to demonstrate the group's communication accessibility. We identified what the Township needed regarding antennas and where they could be installed, plus they also discussed the subject of the municipality's need for Amateur radios and their cost. With the

meeting ending at 21:15, the Emergency Management Group agreed to discuss the ARES group's proposed suggestions and will get back to them with their questions, comments and or decision.

In his report on page 60 of the May-June 2012 TCA, RCW-ARES EC Bob, VE3YX, noticed that he had neglected to include the URL for the Outpost program. It can be found at <[www.outpostpm.org/](http://www.outpostpm.org/)>.

The Prescott-Russell ARES group provided communications support to the City of Clarence Rockland for its Annual Ride with Rendall bicycle race. This is a gruelling 85K race over multi-surface roads throughout the countryside. In the command post was our senior operator, Don, VE3RM, working Net Control with Deb, VA3VEG, as his logger. Her station logs will be used for years as excellent examples. Providing checkpoint security was Jim, VE3KV, Chris, VA3NKE, Ron, VA3RRZ, Harry, VA3ZAK and Henry, VA3OV. Riding in the sweep vehicle was Wenda, VE3WMT. In the lead vehicle providing APRS location data and continuous feed video was Jean & Jean, VE3OKK & VE3ZJS. Coordinating the event was EC Lance, VA3LP. Only one bike rider was seriously injured enough to be transported to a hospital. Everything went well and both the City and the race organizers expressed their gratitude for our support and are looking forward to the next race in August in Clarence.

We had two representatives attend the Seaway-Capital District ARES Meeting in Ottawa on April 28. Jean, VE3OKK and EC Lance, VA3LP, were both impressed with the exercise organized by the District ARES. This provided a much needed refresher on the process to ask for help from our mutual aid partners. It allowed each attendee to experience all of the steps in the District Mutual Aid Plan. Thanks to DEC Mike, VE3IPC and AEC (Ottawa ARES) Mike, VE3FFK, for organizing this for the groups' leadership teams.

Due to the loss of individual RAC member insurance, the members of our group have been very active in incorporating an Amateur Radio club here in Prescott-Russell.

Ron, VA3RRZ, Mark, VE3TKN and Normand, VA3NPL, have been on the leadership team to incorporate the club. As of this writing we now have a new club in Eastern Ontario called the Prescott-Russell Amateur Radio Club. The Club is in the process of acquiring insurance for Amateur Radio activities for the Club and its members. They are presently seeking members. If you are in Eastern Ontario, you are encouraged to come out and join the club. All Amateurs are

encouraged to come out every Thursday evening to Chamberlain Centre in Rockland to meet and greet your fellow Amateurs.

The EMRG/Ottawa ARES group conducted its usual monthly test of their repeaters in East, Central, West and South Ottawa, plus UHF in central Ottawa and VE2CRA, the club repeater of the Ottawa ARC. The voice repeater tests were headed by Dave, VE3KMV, with the participation of Bob, VA3QV, Arthur, VA3BIT, Ron, VA3ACZ, Tracy, VA3TXN, Mike, VE3KOY and John, VA3JBS. The BBS and Winlink VHF gateways were also tested and found to be operational.

The group hosted the annual meeting of ARES ECs and AECs from around the Eastern Ontario District. In addition to the usual sharing of information on what is happening in each group's area, a tabletop end to end mutual aid exercise was conducted. The date and venue for next year's meeting was also set, a record amount of lead time for the District. In parallel with the talkin for the meeting, a zero notice exercise was held for EMRG/Ottawa ARES members. We will look at holding more of these in coming months.

On April 28, Renfrew County West (RCW)-ARES group EC Bob, VE3YX, attended the Capital / Seaway ARES District meeting where an informative exercise of the DMAP District Mutual Aid Plan was held. The exercise provided a comprehensive run through of the process from initial alerting to on scene deployment. This exercise format will be used for an exercise of our own group.

From Friday April 27 through Sunday April 29, RCW-ARES shared a booth with the Renfrew County ARC at the Petawawa Civic Centre for an Outdoor show. This was our first attempt at a show like this from the Civic Centre. We were led to believe that we would be able to put mag mount antennas on the steel roof of the building, but when we arrived to set up, the story had changed. We put a mag mount 5/8 wave 2m antenna on the roof of a porch over an emergency exit. The antenna was only a couple of feet from the steel east wall of the building, but it was useful for operating with the repeaters east of us.

We put a mag mount 20m Hamstick on a fence rail which should have provided a reasonable ground plane but it didn't work at all. Toward the end of the show, we found that by disconnecting the coax shield at the mag mount, we could operate reasonably well on 40m. We have a permanent 2m Ringo Ranger mounted on the building, but it was at the opposite corner from our booth and not at all accessible.

On display we had brochures, magazines, QSL cards and a slide show of past ARES activities, but what seemed to get the most attention was Doug Wheelock's video of Ham Radio aboard the ISS which we had looping on a laptop. The turnout to the show was disappointing with only about 1800 people for the three days, but we had eight or 10 who showed an interest and may follow up.

Manning the booth were: Marilyn, VE3ZYY, Yvonne, VE3RYA, Lewis, VE3QJ, Tony, VA3HWH, Richard, VA3BIX, Rob, VA3AGN, Bernie, VA3SUR and Bob, VE3YX.

And yes it was VERY CCCCCCCold in the building!

The Renfrew County East (RCE)-ARES group was well represented by AEC Jim, VA3JER, who attended the ARES District Mutual Aid conference in Ottawa on April 28. The tabletop exercise was informative and helpful with the forms and how to use them (see page 46 for more information).

The Lanark North Leeds (LNL)-ARES group membership remains stable, the weekly net continues, plans are afoot to participate in the Kilt Run in Perth, the Ottawa Bicycle Club Annual Ottawa-Kingston Tour, Field Day, and weekly Saturday breakfasts in Perth. Other events will probably take place as well.

Our callout procedure with Rideau Lakes Township has been updated at their request. Several new arrivals (Amateurs) are likely to join our ranks shortly. We have received a donation of several repeaters and, as time permits, we will be upgrading several of our present sites. A 6 kW generator belonging to LNL-ARES is being donated to the Almonte Group in order to provide standby power at their Union Hall D-Star repeater site. (Norm, VE3VY, reporting for the LNL-ARES group EC.

The SD&G (formally Cornwall) ARES group close association with the SVARC continues. The group's last meeting took place on April 23, at the Cornwall Armoury.

SD&G-ARES expansion from the former "City of Cornwall ARES" is taking place. Following our local Skype meeting earlier in 2012 this announcement was well received at the April 2012 SVARC meeting.

SD&G-ARES group plans to provide emergency radio communications services to the Glengarry Memorial Hospital have begun. Our group's association with the Cornwall Community Hospital (McConnell Street Site – the former Hotel Dieu hospital) continues. Thanks go to the seven Amateurs who participated in the Comms exercise with the Glengarry Memorial Hospital on April 27 in Alexandria. During the exercise four methods were used



to demonstrate possible radio communication methods between the hospital and Ottawa. Following the exercise the group's EC Earle, VE3IMP, met with the CEMC for Alexandria in the Township of North Glengarry and a liaison has begun. This opens additional opportunities for SD&G-ARES

The group was well represented by AEC John, VA3JO at the annual ARES District Mutual Aid conference in Ottawa.

The Eastern Ontario ARES District Mutual Aid 2012 annual conference took place on April 28 at the Ottawa City Hall building from 1000 to 1700 local time, thanks to the Ottawa (EMRG) ARES group. This year we held a tabletop exercise as a follow-up to the April 2010 deployed exercise, testing all major aspects of the District Mutual Aid Program (DMAP) manual, and last year's April 2011 deployed exercise, testing in particular the staging area and briefing area of the DMAP that had challenges in 2010. With lessons learned from both 2010 and 2011 exercises, this one-time tabletop exercise was designed for all participants to experience all major aspects of the DMAP. For the complete report on the conference see the Public Service / ARES column on page 46.

Exercise organizers were; AEC Mike, VE3FFK and DEC Mike, VE3IPC. Exercise participants were: Ottawa ARC President & Deputy Director Glen MacDonald, VE3XRA, PR-ARES EC Lance, VA3LP, Jean, VE3OKK, Ottawa ARES EC Richard, VE3UNW, Loyalist DEC Bill, VA3WOW, RCE-ARES AEC Jim, VE3JER, RCW-ARES EC Bob, VE3YX, SD&G (Cornwall) ARES AEC John, VA3JO, Quebec SEC & Deputy Director Normand, VE2NHH, and a new Amateur and SEC helper Carole, VA2NDJ. The IMS presenter was Peter, VE3BQP.

Our thanks go to the Ottawa (EMRG) ARES group leadership for hosting the conference, and our many thanks go to the meeting facilitators: retired EC Ottawa (EMRG) ARES Peter, VE3BQP and Ottawa (EMRG) ARES AEC Harold, VE3UNK. At this year's conference, DEC Mike, VE3IPC, announced that ADEC Lance, VA3LP, has accepted taking the position as the new DEC for Seaway and Capital ARES Districts (Eastern Ontario) as of September 1. This came partly because of the personal need to move on after eight years of being the DEC for Eastern Ontario ARES and for being available for the Section Manager's position for when this becomes available for Ontario East Section.

Following this announcement, two (DEC-VE3IPC) Certificates of Merit we given: one to ADEC Lance,

VA3LP, for eight years of loyal and very helpful dedication to the ARES District and one to Mike, VE3FFK, as District Exercise Manager for three years of hard work and dedication in preparation for and the conducting of three ARES District Mutual Aid exercises for 2010, 2011 and 2012.

The incoming replacement DEC, Lance, VA3LP, who is currently the EC for Prescott-Russell ARES, has announced that the next ARES District conference will be in Clarence – Rockland, Ontario on April 27, 2013. This certainly provides for a lot of lead time for the next annual conference preparations.

#### Bruce District:

With the assistance of Fred Lorch, VA3STG, I have verified that one of the 2m repeaters in Huron County is still on the air. I have been in email correspondence with the trustee of that repeater to try to identify an active Radio Amateur group in Huron County where I could attempt to recruit ARES participants. Since then I have learned that the Perth County ARES group has some contacts in Huron County.

On Sunday, April 22 I assisted with the MS Walk in Owen Sound (see the Grey County report below.)

This will be my last report as acting EC for Bruce County as Tim Eaton, VE3RTE, will be assuming the post of Emergency Coordinator for Bruce County starting May 1.

The monthly ARES meeting was held on Tuesday, April 17 in Port Elgin, with seven Amateurs, including myself, participating. This was a special meeting at the home of Bill Reany, VE3WMR, where he showed us the airplane he is building.

#### Grey County:

Six Grey County ARES members provided communications for the MS Walk in Owen Sound on Sunday, April 22. The weather was sunny but very windy and cool. Participants were. Local media reported that there were 85 walkers and they raised about \$7,500 for the MS Society. Participants were: Fred, VA3STG (net control), Jon, VA3CIC, Chris, VA3OCT, John, VE3PKI, Brad, VE3RHJ and Bob, VE3LKD.

ARES EC, Bob, VE3LKD, attended a Grey County Emergency Exercise preparation meeting on April 4.

#### Perth County:

On April 18, Alle, VE3CWL, Walter, VE3NQM, Tom, VE3KVD, Dean, VA3DBD and Jim, VA3JRH, attended CanWarn Training in London. On April 25 I attended Operation SWEEP, which was a Severe Weather Emergency Exercise at the Perth East Recreation Complex in Milverton.

## RAC Field Organization Reports

### National Traffic System (NTS) Net Reports

#### March 2012:

Net (Manager)	Sessions	QNI	QTC
BCEN (VE7XLH)	31	158	40
BCYTN (VE7WJ)	31	488	23
CECA (VE7DXD)	4	40	14
MEPN (VE4LB)	29	489	4
MMWXN (VA4GD)	31	476	2
MRS (VE4HK)	9	317	0
MSMN (VE4AEW)	22	541	0

#### April 2012:

BCEN (VE7XLH)	30	131	38
BCYTN (VE7WJ)	30	550	47
CECA (VE7DXD)	4	52	13
MEPN (VE4LB)	25	400	1
MMWXN (VA4GD)	30	487	0
MRS (VE4HK)	9	280	0
MSMN (VE4AEW)	21	503	0

The Exercise was held from 8:30 am to 3:30 pm and was organized by Christel Ivanyshyn, CEMC for the County of Perth and Michael Gorniczke, CEME for the City of Stratford. This was a very interesting Exercise. Geoff Coulson, Warning Preparedness Meteorologist Environment Canada, gave a report on the Goderich F3 Tornado and explained the workings of tornadoes and what to watch for. Steve Beatty, Field Officer EMO; Lynda Rotteau, CEMC Town of Goderich; Chip Wilson, Director Public Works for the Town of Goderich; Erin Schooley, Disaster Coordinator for the Canadian Red Cross; Donna Parsons, Emergency Coordinator for Huron County Health, all gave interesting reports on how things worked and the problems they ran into. Afterward we broke up into workshop groups.

EC Stratford/Perth Alle, VE3CWL, was in the communications group. I soon learned that the very first responders to an emergency have different problems as to what we would have if we were called into the same emergency. We had to work out: A) Problems we would run into the emergency three hours into operation B) 12 hours in operations. This was a very interesting exercise and it was also a really good networking exercise which provided an opportunity to meet people representing all the different agencies taking part in emergency operations.

#### Killarney District: Manitoulin and North Shore:

We are looking into the possibility of using Outpost at one of the EOCs on the Island, after reading the success they had with it in Deep River (see pages 40-41 of the March-April 2012 issue of TCA). If this works we could possibly integrate it into all the EOCs.

#### Sudbury:

Monthly Sudbury ARES meetings are going well and training will begin on new radio equipment recently received courtesy of the City of Greater Sudbury Emergency Management.

The new dual-band D-Star radio, tower and dual-band antenna have been installed at the EOC.

The existing HF antenna and VHF/UHF antennas have also been raised and orientated for better performance.

The Sudbury ARES Unit was honoured to receive a Civic Award for volunteerism which was presented by the City of Greater Sudbury at ceremonies held on April 19 at Sudbury City Hall. We were nominated by our CEMC at the EOC and it came as a pleasant surprise to be notified that we won the award! Great job! See page 49 for more information.

#### DECs reporting:

VA3s: NV.  
VE3s: LBX, IPC, RHJ

#### ECs reporting:

VA3s: AJV, KRA, KU, MED, OW, PB and SPT.  
VE3s: DPG, HCB, HEG, ILA, JSQ, LJM, SLQ, SUT, RXE, RQR, TLT, UNJ, UNW, UR, VAC and VI.

#### Official Observer Report:

Norm Bell, VE3XRC

#### March:

# of hours monitoring = 13  
# of Advisory Notices sent = 0  
# of Good Op Notices sent = 0  
**April:**  
# of hours monitoring = 15  
# of Advisory Notices sent = 0  
# of Good Op Notices sent = 3

#### Official Bulletin Stations

OBM Brad Rodriguez, VE3RHJ

#### March-April 2012:

VA3BIX, VA3KRV, VA3PC, VA3STG, VE3GIO, VE3JUZ, VE3KII, VE3SHM, VE3VBR, VE3VY and VE3XTA.

73, Allan Boyd, VE3AJB  
Ontario Section Manager

## QUEBEC

SM: Gilles Larivière, VA2SGL  
SEC: Normand Pitre, VE2NHK

The new Quebec Section Emergency Coordinator (SEC), Normand Pitre, VE2NHK, along with new Radio Amateur and helper to the SEC, Carole, VA2NDJ, attended the 8th annual Eastern Ontario ARES District Mutual Aid conference that was held in the Ottawa (Ontario) City Hall building on April 28 (see page 46).

At the direct invitation of DEC Michael Hickey, VE3IPC, Normand and Carole were not only attendees but they were also participants in the District's first Mutual Aid tabletop exercise. The exercise was designed to give the ECs and AECs of all the ARES groups a personal experience for all to better understand how each step works should any of these groups be called to action by any of their municipal served agencies. A local ARES group can call on another group if there is a need for assistance that is also part of Mutual Aid plan.

Both the Quebec SEC and helper were able to meet with some old friends and also to make some new friends. As the day moved along they commented how a lot of work went into preparing the presentation and also learned that the ARES Mutual Aid Exercise was created by both DEC Michael, VE3IPC and by his District Exercise Manager Mike, VE3FFK.

Normand and Carole have learned a few things to think about regarding Mutual Aid planning and they may be able to use some of these points to improve the local ARES group's relationship with served agencies.

It was noticed that no matter how much one prepares or plans, the day's schedule may not always unfold exactly as planned. All in all, it was an event worth attending and learning from. We enjoyed the experience.

Comme étant le nouveau Coordonnateur d'Urgence de la Section du Québec (SEC) Normand, VE2NHK, avec une nouvelle Radio Amateur et comme aide à son SEC, Carole, VA2NDJ, ont été présent à la 8e conférence annuelle d'aide Mutuel de district SURA est Ontarien qui avait lieu à l'hôtel de ville d'Ottawa en Ontario le 28 avril dernier.

Sous l'invitation du DEC Michael, VE3IPC, ils n'étaient non seulement de l'audience mais participants dans le tout premier exercice de table Aide mutuel de district qui avait pour but de donner à tous les ECs et AECs des différents groupes SURA une expérience personnelle pour tous à mieux comprendre comment

chaque étapes fonctionne si jamais un de ces groupes serait appelé par un organisme municipale à être en service. Un groupe SURA locale peut faire appel à un autre groupe dans le besoin d'aide ceci fait parti du plan d'aide mutuel.

Tous les deux Québec SEC et son aide ont pus rencontrer de vieux amis et en faire des nouveaux. Comme la journée avançais ils ont pus remarquer le gros travail qui était faite à la préparation de la présentation et à l'exercice qui ont été créer par le DEC Mike, VE3IPC et son gérant d'exercice Mike, VE3FFK

Normand et Carole ont appris quelque items sur la planification d'aide mutuel et peuvent même se servir de certains items pour améliorer les relation entre un groupe locale SURA et clients servi.

Il a été remarquer peut importe la planification ou la préparation pour l'horaire de la journée le tous peux ne pas se déroulé comme planifié, c'était un événement instructif et qui valaient la peine d'être présent. Nous avons apprécié l'expérience.

## NEWFOUNDLAND-LABRADOR

SM: Charles Marsh, VO1VZ  
ASM: Wayne Smith, VO1TA  
SEC: Rendyl Godwin, VO1RYL  
A/SEC: Dave McLennan, VO1LM  
OBM: Ira Stacey, VO1IRA  
STM: Joe Earles, VO1BQ

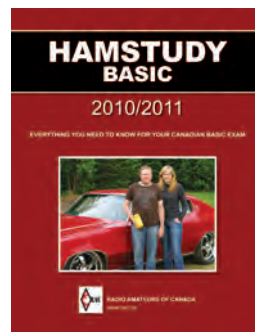
### MARCH-APRIL 2012 SM REPORT:

The past two months have been busy ones in the NL section. First of all, congratulations go to the Avalon Radio Amateurs Club (AVRAC) on receiving a special award of service from the Eastern Newfoundland Division of the Canadian Red Cross (CRC). For quite some time, AVRAC has been partnered with the CRC and has provided them with emergency communication support when necessary. In addition, AVRAC's Emergency Response Vehicle (ERV) has enabled the CRC to promote itself at community sponsored events.

One cannot forget the nightmare of September 11, 2001 when all those jetliners arrived at the local airport. AVRAC responded to this situation in a truly professional manner. I volunteered a night shift at VO1CRC and remember talking to other Amateurs in the ERV in the middle of the night and then hitting the local big stores to gather blankets and other necessary hygienic items to look after the thousands of unexpected guests camped out at Mile One Stadium and other local auditoriums.

The club gathered at Government House and were presented the award by Lieutenant Governor John Crosbie.

www.cafepress.ca/rac\_radio



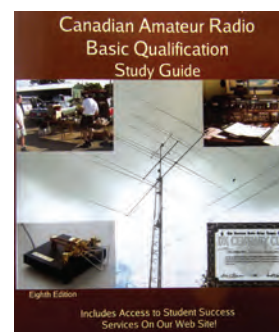
Congratulations AVRAC from the NL Section (see page 49 for more information).

April also marked the 100th anniversary of the sinking of the Titanic. Both the Irish Loop Amateur Radio Club (ILARC) and the Upper Trinity Amateur Radio Club (UTARC) took part in planning and recreating the wireless aspect of this disaster. The distress signal from the Titanic was first received by the Marconi station at Cape Race and then relayed by telegraph to the Heart's Content Cable station. From there, the "news" was relayed through the undersea cable to the rest of the world. ILARC – with Dave Myrick, VO1VCE, at Cape Race in the Myrick Wireless Museum's Amateur station VO1MCE – received the SOS signal from a cruise ship at the actual disaster site via satellite transmission and relayed it to the Amateurs at VO1TAC using the Internet Skype application. How communication has changed in 100 years!

To add professionalism to the reenactment, the Amateurs at Heart's Content dressed in period costume and I must add that they looked the part. I'm always verbally jousting with Doug Card, VO1DD, and I remarked to him that he looked so old that his MCP healthcare card must have Roman Numerals on it. Take that Doug! But, I know it's only a loan; he'll get me back (see page 25 for more information).

To acknowledge International Marconi Day (IMD) 2012, the Society of Newfoundland Radio Amateurs (SONRA) partnered with Parks Canada at the Signal Hill National Historic Site to establish a linkup with Marconi Museum Station IY4FGM in Bologna Italy. Once again, two very different modes of age-related communication were used.

First there was a CW contact between Joe Earles, VO1BQ, at VO1AA in Cabot Tower and Nicola Greco, IZ4FTB, at IY4FGM. Following that, a number of invited federal, provincial and municipal guests used Skype to communicate with Princess Elettra Marconi, Marconi's daughter.



www.rac.ca/store

Needless to say, this was an extremely rewarding venture. Probably the highlight was the showing of a video produced by a local MacDonald Drive Middle School Class to Princess Elettra. The video was a lighthearted reenactment of Marconi on Signal Hill in 1901 receiving the historic first transatlantic wireless signal. This video won the students a Parks Canada award and gave Princess Elettra quite a chuckle. Congratulation to Dave McLennan, VO1LM, and Mike Pardy, VO1MPP, for organizing such a successful event (see page 38 for more information).

On a different note, Cal Tucker, VO1NY, Ira Stacey, VO1IRA and my XYL, Cathy Marsh, have formed a musical group called Amherst Rock. Fort Amherst, on the other side of the Battery at the entrance to St. John's harbour, is where Cal lives. They play for free at Seniors' residences and other similar sites. I must admit they are "not bad". I think however that this is an attempt by the band members to jump the cue to get into one of the "Homes" when the time comes!

I had an email from Joe, VO1NA, telling me that we will be getting 5 megs soon. He is trying to get as many call signs as he can in support of this to forward to Industry Canada. Joe is has a keen interest experimenting on new bands, trying to extend the Amateur spectrum. He would appreciate hearing from any Amateur in Canada who has an interest in this area.

Well, that seems to be it for March and April 2012. Best 73 and 88 and remember to enjoy the hobby, it's supposed to be fun.

– 73, Charlie, VO1VZ

**ECs Reporting:**  
VO1IRA, VO1DM and VO1LM.

### Nets

Thanks to OBM Ira, VO1IRA:

### March:

Cod Jigger HF 290  
Evening Net 456  
VHF Caribou Net 465

### April:

Cod Jigger HF 196  
Evening Net 491  
VHF Caribou Net 480





# COMING EVENTS

## THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative.

### 49TH INTERNATIONAL HAMFEST

**Date:** July 13-15.

**Place:** US Lodge in the International Peace Garden. South of Brandon, Manitoba on the Canada-US Border.

**Description:** Fleamarket, Rabbit Hunts, Mobile Judging, Homebrew Contest, Prizes, Food Concession; Saturday night Dance; Free Sunday Breakfast for those registered Campers, identify yourself at the gate for special camping rates. Next year is the 50th anniversary so be sure to put it on your calendar for July 12-14, 2013.

**Cost:** Public \$13 per person.

**Information:** Richard Holder, VE4QK, or <ve4ihf@mts.net> or 204-268-1702.

**Website:** www.mts.net/~holder/ihf.htm

### ONTARIO HAMFEST

Sponsored by the Burlington ARC

**Date:** Saturday, July 14.

**Time:** 7 am Inside & Commercial Vendors (Robert St Gate); 8 am Tailgate Vendors (Robert St Gate); Public 9 am (Thomas St Gate only).

**Place:** Milton, Ontario

**Cost:** Public \$6; Tables: \$14 each; Tailgate Permit: \$6 per space.

**Talkin:** 146.520 -.

**Information:** Event Coordinator Tom Montgomery, VA3TM; <barc.ontariohamfest@gmail.com>. Mail Vendor reservations to: Norm Freidin, VE3CZL, 2129 Larabee Court, Burlington, ON L7P 3S3, 905-335-8962 <ve3czi@arrl.net>. Email contact: <barc.ontariohamfest@gmail.com>.

**Website:** www.barc.ca/Ontario%20Hamfest.htm

### SASKATCHEWAN HAMFEST 2012

Sponsored by the Saskatchewan Amateur Radio League

**Date:** Saturday, July 28.

**Time:** Vendors 7:30; Public 9 am.

**Place:** Watrous Saskatchewan; Manitou Spring Hotel and Convention Centre. Manitou Beach, Saskatchewan.

**Description:** Fleamarket, AGM, DXpedition film, ladies program and lots of wonderful door prizes.

**Cost:** Fleamarket tables \$5 each. Entrance fee, SARL members (valid) free, everyone else \$5. Contact Val at <ve5aq@sasktel.net> for table reservations.

**Information:** Email <ve5aq@sasktel.net>.

**Website:** www.sarl.ca

### OTTAWA AMATEUR RADIO CLUB

#### 16TH ANNUAL HAMFEST

Sponsored by the Ottawa ARC

**Date:** Saturday, September 8.

**Time:** Building Vendor setup: 7:30 am to 9 am; Tailgaters Open: 8 am; Indoor Fleamarket Building Open: 9 am to 12 noon;

RAC and Technology Forum: Noon to 3 pm.

**Place:** Ottawa (Carp), Ontario; Carp Agricultural Fairgrounds, 3832 Carp Road (near Falldown Lane), into the W. Erskine Johnson Arena.

**Description:** The region's largest fleamarket and hamfest. Major doorprize draws! We will also have on-site radio licence exams! Get yours or upgrade during the hamfest! Following the fleamarket, the OARC is proud to sponsor the RAC Forum and Technology Update.

**Cost:** Public \$6; Tables \$12 (plus admission)

until August 1; Tailgate \$5 (plus admission);

after August 1, Tables \$15 (plus admission).

**Talkin:** VE2CRA, 146.94-, 100 Hz.

**Information:** Ed Sich, VE3WGO, 613-667-

2752 or <fleamarket@oarc.net>.

**Website:** www.oarc.net/fleamarket

### MONCTON AREA ARC FLEAMARKET

**Date:** September 15 (3rd Saturday of September)

**Time:** Vendors 8 am; Public 10 am.

**Place:** Riverview Lions Club, 701 Coverdale Road, Riverview, NB; please note this is a new location.

**Cost:** \$4 per person; Tables: No Charge;

Coffee, Pop and Sandwiches available on site.

**Information:** Contact Charles Levasseur,

VE9CEL at <ve9cel@rogers.com>.

**Talkin:** 147.090 +

### LARC 35th ANNUAL FLEAMARKET

Sponsored by the LARC

**Date:** Sunday, September 23.

**Time:** Vendors: 7:30 am; Public 9 am to 12 noon.

**Place:** London, ON at the Western Fair Grounds; Special Events Building, 900 King Street.

**Description:** Free Parking, air conditioned, Commercial dealers, snack bar, wheelchair Accessible with handicap washrooms.

**Cost:** Tables \$10; Public \$6 (age 10 and up).

Vendor discount if booked before August 1.

**Talkin:** VA3LON, 147.060, PL 114.8.

**Information:** See website flyer for info and directions. Contact Ruth Dahl, VE3RBO, 519-455-9465 or <larchamfest@gmail.com>

**Website:** www.larc.ca

### GREENWOOD ARC FLEAMARKET

Sponsored by the Greenwood ARC

**Date:** Saturday, October 6.

**Time:** Vendors 8 am; Public 10 am.

**Place:** Greenwood, Nova Scotia; Greenwood Community Centre on Church Street. Take Exit 17 off Highway 101, toward Kingston NS, Follow the signs to Greenwood.

**Cost:** Public \$4 per person. Tables are free. To reserve tables, contact <ve1icy@gmail.com>.

**Talkin:** VE1WN, 147.240+.

**Website:** http://greenwoodarc.org

### NEW ENGLAND AMATEUR RADIO FESTIVAL

Sponsored by the New England Amateur Radio Festival, Inc. (NEAR-Fest XII)

**Date:** Friday & Saturday, October 12-13.

**Time:** Gates open at 9 am on Friday for both sellers and buyers.


**Place:** Deerfield, NH, USA. The Deerfield Fairground is located on Route 43 approx. 15 miles NE of Manchester NH.

GPS coordinates: N42d 5m 57.4" W71d 14m 33.5s (Lat 43.099286 Lon -71.242663).

**Description:** In addition to the hundreds of hams "tailgating" in the fleamarket there will be three huge buildings full of commercial vendors and dealers offering everything from the latest in radio equipment, books, accessories and who knows what else? Take advantage of the strong Canadian Dollar and bring home some new goodies!

**Cost:** \$10 per person and \$10 per vehicle into the fleamarket. Camping fees to be announced.

**Talkin:** K1JEK/RPT 146.700 MHz (-600 PL



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**Fax: (705) 435-2996**

**email: [info@mapleleafcom.com](mailto:info@mapleleafcom.com)**

88.5) 146.52 direct 3.885 MHz. Tune your car radio to FM 95.1 or AM 650 for continuous hamfest news and entertainment.

**Information:** Email <W1RC@near-fest.com>.

**Website:** www.near-fest.com/

### HARC HAMFEST 2012

Sponsored by the Hamilton ARC

**Date:** Saturday, October 13.

**Time:** Vendors 7 am to 9 am; Public 9 am.

**Place:** Ancaster, Ontario; the new Ancaster Fairgrounds.

**Description:** An Amateur Radio, computer and electronics fleamarket. Major vendors include Radioworld, Durham Radio and Maple Leaf Communications. Doorprize draws. Loonie draw. Snack bar.

**Cost:** General admission \$7; Table \$10 (plus admission).

**Talkin:** 146.760 pl tone 131.8

**Information:** Contact Mardy, VE3QEE.

Tables 905-648-0187 or <ve3qee@hamiltonarc.ca>. John, VA3BOZ, 905-227-0155 or <va3boz@rac.ca>.

**Website:** www.hamiltonarc.ca

### WINNIPEG ARC FALL FLEAMARKET

Sponsored by Winnipeg ARC

**Date:** Sunday, October 14.

**Time:** Socializing, coffee and muffins 9:30 am;

Vendors 9:45 am to 10:30 am. Public 10:30 am. Prize Draws 11:30 am.

**Place:** Winnipeg, Manitoba; Heritage Victoria Community Centre, 950 Sturgeon Road.

**Description:** Fleamarket and Social Event.

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**RG-8X Coax .60 Foot 200 Feet \$99**  
**RG-213 Coax .95 Foot 200 Feet \$179**  
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 Phone 613-353-2800 Fax 613-353-1294  
 Email: macfld@kos.net  
[www.macfarlaneelectronics.on.ca](http://www.macfarlaneelectronics.on.ca)

**Cost:** Public \$3 per person; Tables – WARC members \$5 each, all others \$10 each.  
**Talkin:** 147.390 MHz positive offset, 127.3 tone  
**Information:** Contact Ruth, VE4XYL <ve4se@mts.net> or 204-837-6915 to order tables. For general information contact Dick Maguire, VE4HK at <ve4hk@rac.ca> or 204-256-3143.

### SARA FLEAMARKET

Sponsored by the Southern Alberta Repeater Association

**Date:** Saturday, October 13.

**Time:** Vendors 10 am; Public 11 am.

**Place:** Calgary, Alberta; Eastside City Church, 1320 Abbeydale Drive SE T2A 7L8;  
 Map: <[www.eccab.ca/locate\\_eastside.html](http://www.eccab.ca/locate_eastside.html)>.

**Description:** Free Parking; Free Coffee; Snack Bar with Famous SARA Dogs; Commercial Dealers.

**Cost:** Vendors & Public \$5; Tables \$10 each

**Talkin:** 146.610 -600

**Information:** To reserve tables, call Ken Oelke, VE6AFO at 403-226-5840 or <ve6afo@cia.com>.

**Website:** <http://saralink.ca/>

### YORK REGION HAMFEST 2012 (36th Edition)

Sponsored by the York Region ARC

**Date:** Saturday, November 3.

**Time:** Vendors 6:30 am; at 7:30 am an indoor ticket booth/gathering place/refreshment area opens for the general public – no freezing while waiting in line! Free coffee, with muffins and doughnuts available for purchase! Join your friends for breakfast. Doors open to the sales area for the general public at 9 am.

**Place:** Markham, ON; the Markham Fairgrounds are located at 10801 McGowan Road on the northeast corner of McCowan Road and Elgin Mills Road. For a detailed map that you can print off go to <[www.markhamfair.ca/canadas-largest-4-day-agricultural-fair-6/greetings/how-to-get-here/](http://www.markhamfair.ca/canadas-largest-4-day-agricultural-fair-6/greetings/how-to-get-here/)>.

**Description:** Vendors galore in two separate halls. Lots of space for socializing in a separate hall. Exhibits and Demonstrations. Wide aisles for wheelchairs and scooters. Free Parking. Great Door Prizes. Refreshments. Grand Prizes. DXCC, WAS & VUCC Card Checking. Licensing Examinations (register with Hamfest Coordinator prior to the Hamfest to ensure we bring enough exams.)

**Cost:** Public \$7 per person, with an "express

### CG3B: THE BICENTENNIAL (200 YEARS) OF PEACE

Special Event CG3B, commemorating the Bicentennial (200 years) of Peace between the United States of America and Canada after the war of 1812, will be active from July 1 to July 31 during various Bicentennial functions in the Niagara area on the Lake, Ontario.

A special QSL card will be available from trustee, Dave Digweed, VE3FOI, 4117 Hazelnut Court, Vineland, ON L0R 2C0, Canada. SASE or \$2 USA or via the Bureau, attention VE3FOI. More information will be updated on the Niagara Peninsula ARC's website at <[www.nparc.on.ca](http://www.nparc.on.ca)> and can also be found on QRZ.com.

This will be the first of many special event stations between 2012 and 2014 regarding the Bicentennial. The Niagara Peninsula ARC takes pleasure in providing this special call sign for General Issac Brock.

### CK6S: SPECIAL EVENT STATION FOR THE 100TH ANNIVERSARY OF THE CALGARY STAMPEDE

The Calgary Amateur Radio Association will be operating special event station CK6S, from July 5 to July 15 celebrating the 100th Anniversary of the Calgary Stampede. A special QSL card will be available through the QSL bureau or direct, following the CK6S/VE6AO QSL instructions on QRZ.com.

All Amateurs within the City of Calgary can also use special prefixes CJ6 for VA6 and CK6 for VE6 for the same period. Work 10 Calgary stations and you can qualify for the Stampede City Award, illustrating the chuckwagon races. Planned frequencies are in the general portion of the US phone bands around 3.825, 7.180, 14.250, 21.320 and 28.475 +-QRM.

Visit <<http://cara.memberlodge.com/Default.aspx?pagelid=905198>> for more information.

### XM31812: WAR OF 1812 SPECIAL EVENT

In commemoration of the War of 1812, the Hamilton Amateur Radio Club will be operating Special Event Station XM31812 from July 13 to 15. All Amateurs are invited to operate at this event. To operate or see the schedule visit the website at <[www.wix.com/xm31812/xm31812](http://www.wix.com/xm31812/xm31812)>.

### SPECIAL EVENT STATION VE3WCD CANAL DAYS MARINE HERITAGE FESTIVAL

The 34th annual Canal Days Marine Heritage Festival will be held in Port Colborne, Ontario from Friday, August 3 to Monday August 6. Located on the historic Welland Canal, the festival features tall ships, boat cruises, marine museum displays, a car show and several other attractions for adults and children.

lane" for those with exact change; Vendors \$35 per 8 foot table, with one free admission per table rented. Additional admissions are \$7.

**Talkin:** VE3YRA 145.350 MHz (-).

**Information:** Contact <[hamfest@yrcarc.com](mailto:hamfest@yrcarc.com)>.

**Website:** [www.yrcarc.ca/our-hamfest.html](http://www.yrcarc.ca/our-hamfest.html)

### KARC HAMFEST 2012

Sponsored by the Kingston ARC and the Military Communications and Electronics Museum

**Date:** Saturday, November 17.

**Time:** Doors open to the public at 9 am with vendor setup starting at 7:30 am.

**Place:** Kingson, Ontario; Military Communications

The Niagara Peninsula Amateur Radio Club (NPARC) is taking part in the festival by operating a special event station and providing RAC and ARES displays to demonstrate to the public that Amateur Radio is both an interesting hobby and a vital community service.

The Special Event call sign is VE3WCD (Welland Canal Days) and attractive QSL cards will be available with a SASE or via the bureau. See QRZ.com for QSL information.

Look for us on Saturday, August 4 and Sunday, August 5 from 1300Z to 1800Z on or about 7.250, 14.250, 21.250 and 28.250 MHz. Niagara area Amateurs are invited to come out and join in the fun and we will be located next to the St. Lawrence Seaway exhibit tent near the water tower.

### LONDON 2012 OLYMPIC AND PARALYMPIC GAMES

Some special event call signs will be activated to celebrate the London 2012 Olympic and Paralympic Games: 2012L (Two Oscar One Two Lima) from London, England and 2012W (Two Oscar One Two Wales) from Barry, Wales. The Radio Society of Great Britain has been granted the "Inspire mark" for these stations by the London 2012 Inspire program.

The London station, **2012L**, will be active through the duration of the Games, located at the historic Eltham Palace, southeast London on 160m-2m, all modes. More information can be found at <[www.2012L.com](http://www.2012L.com)> or by contacting the Press Officer, Mr. John Warburton, G4IRN, at <[press@2012L.com](mailto:press@2012L.com)>.

The Welsh station **2012W** will also be active on all bands from 160m to 23cms and all modes including SSTV and satellite from Whitmore Bay, Barry Island, Vale of Glamorgan, Wales. More information can be found at <[www.2012W.com](http://www.2012W.com)> or by contacting station manager Mr Glyn Jones, GW0ANA, at <[glyndxis@talktalk.net](mailto:glyndxis@talktalk.net)>.

Amateur Radio operators everywhere will be able to share in the Olympic experience by making contact with the station and to exchange greetings messages with visitors and Games participants who visit the station. The team aim to make contact with as many of the Games participating countries as possible. Special QSL cards will be available to stations contacted.

The project aims to leave a lasting legacy by encouraging visitors to learn more about radio communications and the social, career and recreational benefits that it brings. Of course, visiting Amateurs will be made very welcome at the stations.

John Warburton, G4IRN  
 Publicity Officer, Project Echo

and Electronics Museum is located at 95 Craftsman Boulevard, off Highway 2, about 1 km East of Hwy 15 – opposite the Vimy Barracks entrance.

**Description:** As well as the Hamfest, the Museum Kit Shop will be open and Museum tours will be available.

**Cost:** Tables \$10 each and may be reserved by contacting <[hamfest@ve3kbr.com](mailto:hamfest@ve3kbr.com)>.

Admission is by a donation to the Museum.

**Talkin:** 146.94- (tone 151.4).

**Information:** Contact <[hamfest@ve3kbr.com](mailto:hamfest@ve3kbr.com)>.

**Website:** [www.ve3kbr.com/karc/hamfest.html](http://www.ve3kbr.com/karc/hamfest.html)



# RAC MAPLE LEAF OPERATOR MEMBERSHIP PROGRAM

Radio Amateurs of Canada would like to thank the following RAC Maple Leaf Operators:

David Argo, VE3NLZ  
Michael Aultman, VA3MPR  
Gary Badcock, VO1GWC  
A James Ballard, VE9AJB  
Dennis Bancesco, VE6ATC  
Shawn Barnard, VE3KYQ  
David C Barnes, VO1YA  
Larry Barnett, VE6LGB  
Bill Barrie, VE3AAS  
Douglas Barry, VE7WLF  
Michael Bell, VE3NOO  
John R (Jack) Belleghem, VE3HD  
Michael F Belliveau, VE6XZM  
Bruce Bernard, VE1TIN  
Larry Berta, VE3LXV  
Robert Boyd, VE3SV  
P J Buckway, VY1PJB  
Paul Burggraaf, VO1PRB  
Gary Burgin, VE7FZZ  
David Caddell, VA7VVV  
Ralph Cameron, VE3BBM  
Geoff Clarke, VE3JBD  
Guy A Costanzo, VA7GAC  
Francois Daigneault, VE2AAY  
Frank Davis, VO1HP  
Julio Cesar Diaz, VA3JCL  
Tim Ellam, VE6SH  
Richard Ferch, VE3KI  
Terry Finn, VE6TF  
James W Fisher, VE1JF  
Jim Forsyth, VA7FJE  
Bunny Forsyth, VE7BFF  
Edward J Frazer, VE7EF  
Richard Francis, VE3OXX  
Gordon Gibson, VE3NQK  
Paul Griffin, VE7IPM  
John Gilje, VE6KJG  
Dave Gillis, VE7BX  
Bill Gipps, VE7ISV  
Thomas Godden, VE3TGW  
Mitchell Goodjohn, VE6SM  
Dave Goodwin, VO1AU  
Richard Govoni, VE3SHL  
Scott Gregory, VA3NMI  
Tom Haavisto, VE3CX  
Kelvin Hall, VA7KPH  
David W Hamilton, VE6DWH  
Don Hamilton, VA7GL  
Karl Hamilton, VE3RRP  
Garry V Hammond, VE3XN  
Jean-Guy Hardy, VE3YOS  
Brad Harris, VE3MXJ  
Kevin Hastings, VA3PSL  
Derek Hay, VE4HAY  
Peter Hebb, VE1SM  
Jean Paul Henault, VE2JHP  
Peter W Henry, VA3PWH  
Howard Hepburn, VE6GT  
Peter Hodgson, VA3PKH  
John Hood, VE3VJH  
Joseph Hopkins, VE7BYF  
Clare Hopkins, VE7IBK  
David Hopkinson, VA7FTW  
Mark Alexander Humenyk, VE3HMK  
Lorne S Jackson, VE3CXT  
Doug Johns, VA3DLJ

Dave Johnson, VE7VR  
Sam Jones, VE3LCK  
W J Karle, VE4KZ  
Eric Kehler, VE7EGK  
Thomas V Kennedy, VA3TVK  
Stephen Kerridge, VE9HZ  
Melvin Killens, VE3MLK  
David Klatt, VE5GN  
Jerry P Krayco, VE7NX  
David LaHay, VE7FVW  
Daniel Lamoureux, VE2KA  
Harvey A A Larabee, VA3LHA  
Allan E Lett, VE3TYT  
Joel Levis, VE3CJJ  
David Liddell, VE7QR  
Gene R Lutes, VE7IMP  
Ian MacFarquhar, VE9IM  
John MacKay, VE7EEX  
R K Mackenzie, VA3RKM  
Neil Macklem, VE3SST  
Mark Magner, VE3CT  
Pierre Mainville, VA3PM  
Noel Marcil, VE2BR  
Gabriel Mazzeo, VA3CWT  
Duncan A McCansh, VE3OM  
David McKinlay, VA3IR  
L David McLennon, VO1LM  
Malcolm R McLeod, VE5ZG  
Chris McMullan, VA3CMJ  
Eric Mills, VE1AST  
Lenard Moen Sr, VA3HBR  
Ed Morgan, VE3GX  
Byron Morse, VA3BMO  
Bob Morton, VE3BFM  
Hammond Museum of Radio  
A L Nelson, VE7WC  
Jim Nelson, VE6ACR  
Patricia Nordin, VE3ZP  
Richard Novek, VE7RNZ  
R Oakenfold, VE5RO  
Jean Ouellette, VE3OKK  
Dennis Paganin, VA3DTP  
Charles J Palmer, VE3AZA  
Joseph G Parkinson, VE3JG  
Colin Pavey, VA3FP  
Geddie Pawlowski, VE3CJX  
Steve Pengelly, VE3STV  
Mark A Perren, VE6IHS  
Murray K Pierce, VE3IFP  
Robert W Piggott, VE7CYU  
Byron Pulsifer, VE9BUB  
Don Quenneville, VE3KUP  
Devon Racicott, VE5DWR  
Norm Rashleigh, VE3LC  
AE (Tony) Ratcliffe, VE6AER  
Bryan Rawlings, VE3QN  
Steve Regan, VA3MGY  
Jeff Robbins, VE3JTR  
Bernie Roche, VE3OTR  
Peter Rogers, VE3ETR  
Bruce Roney, VE3BER  
Donald Rowed, VE3KII  
Gerry Saelens, VE7DCW  
John D Scott, VE1JS  
Ellis Seddon, VE4AJO  
Robert A Shkuratoff, VA7DIV

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George B Simpson, VE6HX  
John Sobkowicz, VA6GEO  
Mark Spencer, VE7AFZ  
Harry H Splett, VE3HHS  
Alan Steele, VA3STL  
Jack Summers, VE3XR  
Ann Tekatch, VA3NOE  
Jason Timmis, VE7AG  
W L Underwood, VE1WLU  
Bill Unger, VE3XT  
A E Vaillancourt, VE3DPZ  
Hudson C Vallieres, VE9HCW  
Sanjay Vig, VA2OP  
J M A Vigneault, VE3VIG  
Ron Vollick, VE3GGX  
Garth Wetherall, VE3YC  
Peter Wetton, VA3PRW  
Barry L Wielgoz, VE5HA  
Chris K Wiesner, VA3SM  
Ken Williams, VE9KW  
Harold H Wirth, VA3HHW  
K Scott Wood, VE1QD  
Timothy Wood, VA7TIW  
Allen Wootton, VE7BQO

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The high dynamic range IP3 performance that was realized and proven in the FTDX5000.

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The newly developed LCD has a wider viewing angle and higher contrast.

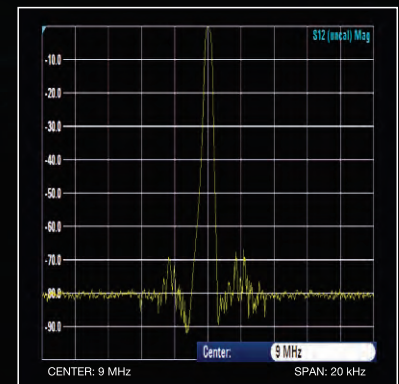
## 4.3-inch Large and wide color LCD display with high resolution

## High Speed Spectrum Scope built-in

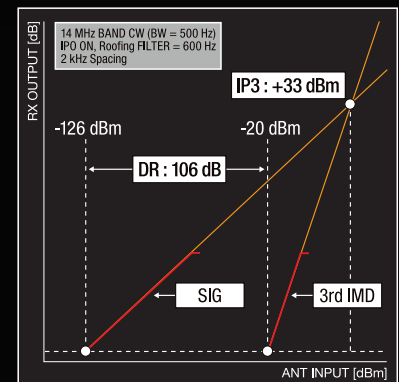
## AF SCOPE display and RTTY/PSK encoder/decoder (optional)

## Other features

The specialized Receiver amplifier for 50 MHz is built in / Three antenna connectors are provided / The "ANT-3" terminal may be assigned to "RX-only" / Signal output for an external receiver and the 9 MHz IF output are furnished / High speed Automatic antenna tuner built in / Optional  $\mu$ -tune unit available / USB interface equipped



Characteristics of the Crystal Roofing Filter (300 Hz)



3rd Order Dynamic Range / IP3

**YAESU**  
The radio

YAESU USA

6125 Phyllis Drive, Cypress, CA 90630 (714) 827-7600

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

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<http://www.yaesu.com>

The FTDX3000 has not been approved by the FCC. This product may not be sold or leased, or offered for sale or lease until FCC approval has been obtained.